Policies for Generating Socioeconomic Benefits from Natural Resource Extraction Projects: A Research Report for the Government of the Northwest Territories

By[1]

Eric Werker

Maggie Cascadden

Katherine Zmuda

April 23, 2017

[1] Werker is corresponding author and Associate Professor, Beedie School of Business, Simon Fraser University, 500 Granville St, Vancouver BC V6C 1W6, ewerker@sfu.ca. Cascadden mcascadd@sfu.ca and Zmuda kzmuda@sfu.ca are students in the Master's of Resources and Environmental Management program at SFU.

Table of Contents

List of Figures

List of Tables

1 Introduction

The fundamental challenge of natural resource governance is to turn an exhaustible resource in the ground, one usually with limited intrinsic value to the local population, into real societal wealth. National and subnational governments around the world are entrusted with the management of their citizens' natural resource endowment. At their worst, natural resource extraction can result in environmental damage, social conflict, political corruption, Dutch disease, and volatile business cycles (Van der Ploeg 2011). At their best, governments are able to use natural resource extraction to improve living standards, invest in productive capabilities like infrastructure and human capital, diversify the economy, smooth business cycles, and make stronger, more accountable government (Natural Resource Governance Institute 2014a). The exhaustible nature of natural resources means that, for some especially high-margin resources, governments may only get one chance to affect transformational change via resource extraction for their population.

The Northwest Territories (NWT) is one of the richest jurisdictions in the world, but still has gains to make on social indicators. If the NWT were a country, it would be the second richest in the world as of 2015, after Luxembourg, and 65% richer than 10th ranked Denmark, using the ranking of countries by market exchange rates as reported in the World Bank's World Development Indicators (see Table 1). However, when compared to similarly wealthy jurisdictions along the one social dimension for which we could find a comparable indicator, the NWT falls short. The male life expectancy in the NWT is approximately four years shorter than world-leading San Marino, and female life expectancy six years shorter than Japan's. Amongst the other rich jurisdictions, NWT is on the low end, along with Qatar, another resource-rich country. Other indicators paint a similar picture. Educational outcomes, for example, are lower than Canada. As of 2006, only 15.6% of NWT adults had a bachelor's degree or higher, compared with 18.1% for the country as a whole.[2]

Table 1: GDP per capita and life expectancy across the world's richest countries plus NWT

Country or Territory	GDP per capita (current USD)	Male life expectancy at birth	Female life expectancy at birth
Luxembourg	101,450	78.2	83.5
Northwest Territories	85,528	76.3	80.1
Switzerland	80,945	80.1	84.6
Macao SAR, China	78,586	77.4	82.1
Norway	74,400	78.9	83.3
Qatar	73,653	76.5	79.2
Ireland	61,134	78.3	82.9
Australia	56,311	79.5	84.0
United States	56,116	76.2	81.0
Singapore	52,889	79.2	83.9

Sources: NWT - Stats Canada, Canadianforex.ca; Others - World Bank.

[2] Authors' calculations from Statistics Canada, 2006 census of population. URL: http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ41d-eng.htm, accessed March 24, 2017.

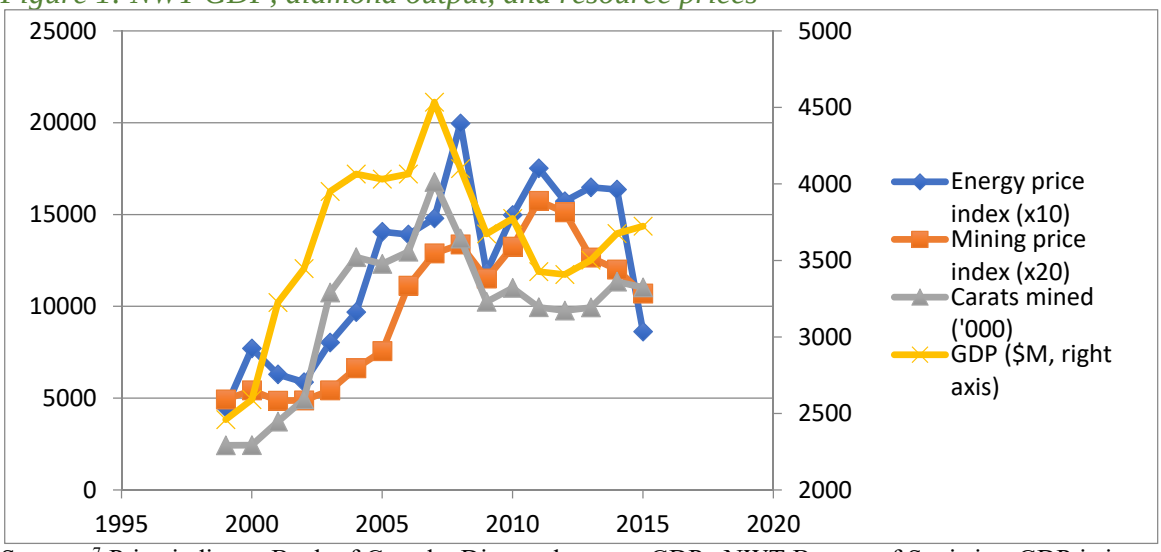
GDP from 2015, life expectancy 200911.

A large share of the wealth of the NWT comes from natural resources. In 2015, nearly one quarter of the NWT's GDP was generated from extractives, principally diamonds and oil and gas extraction.[3] As recently as 2007—when, in fact GDP was a fifth higher—that figure was over 40 percent. In comparison, for Canada as a whole, just 8 percent of GDP is generated from extractives.[4] Even Norway is just over 12 percent.[5] This should not be surprising given the NWT's extremely low population density. Though not as low as Nunuvat's, NWT's population density of 0.036 people per square kilometer,[6] ranked alongside countries, would be the lowest in the world after Greenland. Assuming a random distribution of resources across the earth's surface, the NWT would be a good candidate for high resource wealth per capita. The northern climate, all things equal, would indicate a low likelihood of other industries having prospered, thus contributing to this ratio from the denominator.

The NWT's reliance on natural resources has made the economy subject to commodity price swings and, especially, diamond mining output. Unlike other jurisdictions in Canada, the NWT's GDP peaked in 2007. This coincided with the territory's highest level of diamond output and foreshadowed the peak in oil prices that was to shortly follow. As Figure 1 depicts, the NWT's GDP nearly perfectly tracks the number of diamond carats mined. Of course, measured GDP and actual income (and wider socioeconomic) experiences of NWT residents may not perfectly correlate.

[3] Author's calculations from NWT Bureau of Statistics, NWT GDP by Industry 1999-2015, URL: http://www.statsnwt.ca/economy/gdp/GDP%20by%20Industry.xlsx, accessed March 24, 2017.
[4] Author's calculations from Statistics Canada for 2016 from "Gross domestic product (GDP) at basic prices, by North American Industry Classification System (NAICS)," accessed March 24, 2017.
[5] Author's calculations from Statistics Norway for 2016 from "Gross domestic product and value added by industry," URL: http://www.ssb.no/eksport/excel?key=294761, accessed March 24, 2017
[6] Author's calculations from Statistics Canada from "Population and Dwelling Count Highlight Tables, 2011 Census," accessed March 24, 2017.

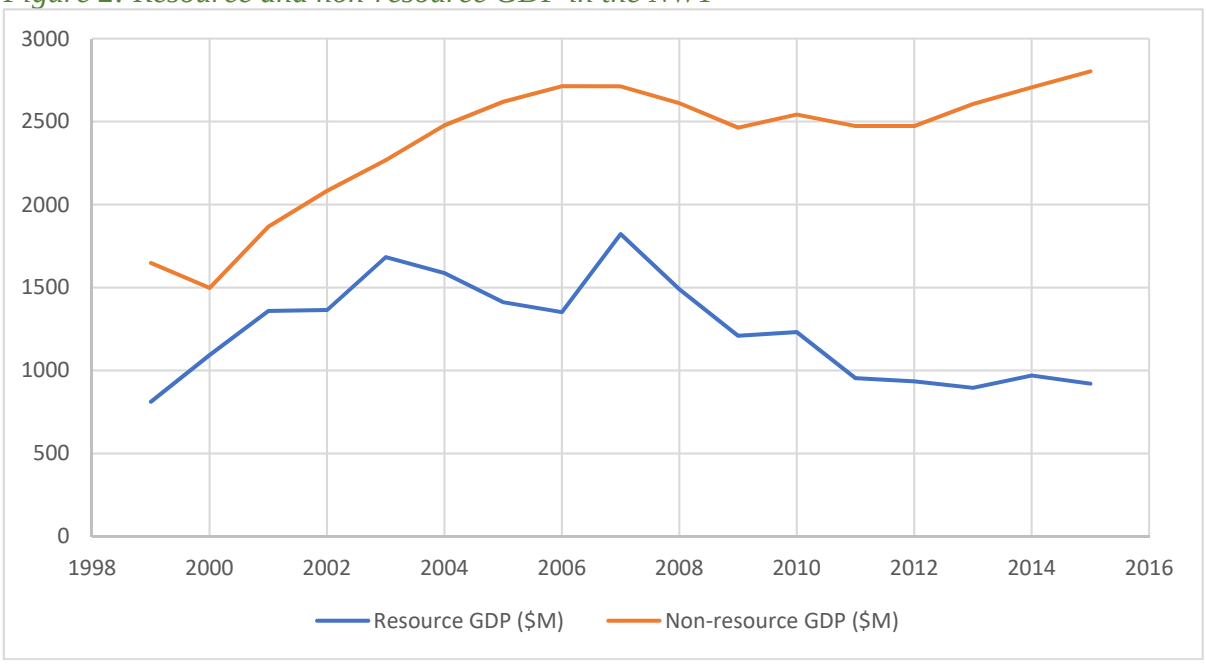
Figure 1: NWT GDP, diamond output, and resource prices



Sources:[7] Price indices - Bank of Canada; Diamond output, GDP –NWT Bureau of Statistics. GDP is in constant 2007 dollars.

Non-resource GDP, however, is less volatile than overall GDP, indicating the presence of stabilizing forces in the "real" economy. A variety of mechanisms, outside the scope of this paper, could stabilize the non-resource economy. These include federal-territorial transfers (in both directions), public sector employment, counter-cyclical government spending, and of course the likelihood that corporate profits from extractive activity are not spent inside the NWT. Figure 2 separates out resource from non-resource GDP; to some extent non-resource GDP is over-estimated—there are certainly "multipliers" from extractive projects, like local incomes, that reverberate through the other sectors. Non-resource GDP had a local peak in 2007 but was surpassed in 2015.

Figure 2: Resource and non-resource GDP in the NWT



Source: NWT Bureau of Statistics.[8] GDP is in constant 2007 dollars.

All of this evidence points to the challenge for the Government of the NWT (GNWT) to use all of its capabilities to maximize the developmental impact of resource extraction. The territorial economy is driven by natural resources, the best bodies of which are exhaustible. Social indicators lag behind other jurisdictions of comparable income. There is both a challenge and an opportunity to intelligently leverage natural resource extraction in order to bring about wider socioeconomic development.

There is a whole value chain of natural resource management, from formulating government strategy to facilitating economic diversification (NRGI 2014a), and this paper will not tackle that whole value chain. NRGI's Natural Resource Charter (2014a) which aims to help governments maximize on resources development opportunities, articulates one useful value chain. The charter as a whole is based on 12 precepts for resource development and governance, including resource discovery, crafting a deal with developers, managing revenues, and investing in sustainable development. The benchmarking framework, which can be found as "NRGI_benchmarking_framework…" in the online appendix, details some questions a government should consider when managing resource development. We have highlighted some questions which we believe are key considerations for subnational governments to consider. Instead of focusing on the broader value chain discussed in the Charter, this paper will focus specifically on the tools and capabilities that subnational governments can develop with regard to deriving the maximal amount of socioeconomic benefits from larger natural resource extraction activity. In order to elucidate the possibilities, the report will regularly turn to examples from national jurisdictions as well as local and community-level instruments.

This paper provides an overview of how subnational governments can maximize a positive local impact from natural resource projects and is organized along three key dimensions. First, it will explore the different types of instruments available to generate socioeconomic benefits. Second, it will catalogue the different categories of benefits that governments and communities have sought to maximize. Third, it will provide a high-level overview of the choices taken by different jurisdictions in Canada and abroad to attempt to generate these benefits. The paper will conclude with examples from agreements pertinent to the NWT, as well as impressions of relevant lessons for the GNWT. Our primary goal for this paper is to go some way towards describing, in fairly broad detail, the "known universe" of policy options being used around the world, as well as examples of good practice for each of those options, so that NWT policymakers can identify potential innovations for further consideration.

2 Socioeconomic benefits from resources in the NWT

2.1 Overview

The Government of Northwest Territories (GNWT) plays an important role in ensuring that communities and Aboriginal groups receive socioeconomic benefits from proposed natural

[7] Annual Bank of Canada indices for Energy and Metals and Minerals, respectively; Diamonds from URL: http://www.statsnwt.ca/TSR/series.php?seriesid=TS1031, accessed March 25, 2017; GDP by industry.
[8] Author's calculations from NWT Bureau of Statistics, NWT GDP by Industry 1999-2015, URL: http://www.statsnwt.ca/economy/gdp/GDP%20by%20Industry.xlsx, accessed March 24, 2017.

resource projects in their territory. While the GNWT cannot set terms on federal lands, they can instead implement follow-up programs for major resource developments, which sometimes take the form of a socioeconomic agreement (SEA). In the NWT, the Department of Industry, Tourism and Investment is the responsible authority to negotiate SEAs with communities and the proponent (GNWT n.d.). Even so, all parties involved in a project (i.e. industry, communities and regulators) have set roles and responsibilities regarding environmental and socioeconomic effects of a project, outlined in the public regulatory process. One of the Department's roles is to ensure that the proponent acknowledges its commitments to communities including: employment, business opportunities, cultural well-being and traditional economy, well-being, net effects on government, and sustainable development (Lukas-Amulung 2009). Moreover, since the company cannot accomplish all commitments that may be of interest to communities, the SEA addresses how the GNWT can assist with meeting these commitments. This way, the Department can guarantee that the proposed project is in the best interest of NWT residents and will continue to bring benefits to their communities (NWT ITI n.d.).

2.2 Different instruments

The GNWT largely uses regulations, policies, and agreements as instruments for ensuring socioeconomic benefits, which differ depending on the industry. Legislation exists for the oil and gas sector requiring benefits plans (section 2.2.1), whereas benefits can also be gathered through land claim agreements (section 2.2.2) and socioeconomic agreements in the mining and gas sectors (section 2.2.3).

2.2.1 Legislation

Legislation is a tool commonly used by governments, including the GNWT, in order to receive socioeconomic benefits from projects through their policies and regulations. For instance, the *Oil and Gas Operations Act (COGOA)* requires benefit agreements to be established, specifically in s. 5.2 on Benefits Plan Approval. Before continuing any work on the project, the section outlines the requirement to receive approval of a benefits plan (Dupuy 2014). The *Act* also specifies that the supply of goods and services used for any proposed work should favor disadvantaged individuals, groups or corporations - and that they also have priority for training and employment opportunities. In addition to the legislation, the GNWT has developed a guide for operators that can help them meet the *COGOA* requirements, known as the *Benefits Plan Guidelines for the North*.

The NWT uses both royalties and rent to secure benefits from the resource development sector. Mineral developments are required to pay the lesser of 13% of the dollar value of the output or the sum of the royalties payable, as set out in NWT's *Mineral Regulations* (NWT Reg 015-2014 s. 69; Table 2). Benefit Agreements in the area often have their own fiscal benefits outlined in the agreement, whereby communities receive a fixed payment from the mining company (O'Faircheallaigh and Gibson 2012). In addition to royalties, rent is collected in the NWT at a rate of $2.50 per hectare for the first term and $5.00 per hectare each renewed term (NWT Reg-015/14 s. 60). For oil and gas development, royalties amount to 5% of oil and gas obtained in the permit or lease area per month the first five years of commercial exploitation, or shorter in some situations (NWT Reg 016-2014 s. 83). After this period, taxes rise to 10% of the value of oil and gas. Rent for oil and gas developments amount to $0.50 for each acre of land under lease for first year, then $1.00 per year per acre each acre after the first year (NWT Reg 016-2014 s. 76).

Table 2: Schedule 3 from NWT's Mineral Regulations

	Column 1	Column 2
Item	Dollar value of the output of the mine	Royalty payable on that portion of the value
1	10,000 or less	0%
2	Greater than 10,000 but not greater than 5 million	5%
3	Greater than 5 million but not greater than 10 million	6%
4	Greater than 10 million but not greater than 15 million	7%
5	Greater than 15 million but not greater than 20 million	8%
6	Greater than 20 million but not greater than 25 million	9%
7	Greater than 25 million but not greater than 30 million	10%
8	Greater than 30 million but not greater than 35 million	11%
9	Greater than 35 million but not greater than 40 million	12%
10	Greater than 40 million but not greater than 45 million	13%
11	Greater than 45 million	14%

Source: NWT Reg 015-2014 s. 69

2.2.2 Land claim agreements

Comprehensive Land Claims Agreements (CLCAs) also contain some requirements that bring socioeconomic benefits to specific Aboriginal communities. CLCAs are negotiated in areas where Aboriginal rights and title are not addressed in historical treaties or other legal means, and at the time of negotiation the matter is still in disagreement (Indigenous and Northern Affairs Canada 2010). There are three land claim agreements in the NWT: Inuvialuit Final Agreement (1984), Gwich'in Comprehensive Land Claim Agreement (1992), and Tlicho Land Claims and Self-government Agreement (2005) (Public Works and Government Services Canada 2015). Each of these CLCAs employs different measures to distribute socioeconomic benefits to Aboriginal communities, whether it is through provisions for specific agreements, royalties or other economic measures for compensation.

The Inuvialuit Final Agreement (1984) (IFA) established conditions for negotiating specific agreements with Aboriginal communities (GNWT Aboriginal Affairs and Intergovernmental Relations, n.d., Inuvialuit). The IFA is the first regional land claim agreement in NWT, signed by the Committee for Original Peoples' Entitlement and the Government of Canada. The IFA provides for wildlife harvesting rights, the participation of Inuvialuit in wildlife and environmental management regimes, as well as socioeconomic initiatives. The agreement establishes provisions for the negotiation of different types of agreements similar to impact benefit agreements (IBAs), for example a mandatory "Participation Agreement" for any commercial activities on Inuvialuit lands (Sosa and Kennan 2001). More specifically, section 10 of IFA refers to Participation Agreements, requiring the compensation of Inuvialuit community for access into their territory as permit holders of petroleum, coal or mineral rights or interests issued by Canada. The needed Participation Agreement, as per s. 10(2), includes compensation for s. 10(3) (c) employment, service and supply contracts; (d) education and training and (e) equity participation or other similar types of participatory benefits (GNWT Aboriginal Affairs and Intergovernmental Relations, n.d., Inuvialuit).

The Gwich'in Comprehensive Land Claim Agreement (1992) (GCLAP) secured royalties and focused on economic benefits the Gwich'in Nation could receive from projects (GNWT Aboriginal Affairs and Intergovernmental Relations, n.d., Gwich'in). The GCLAP, along with its implementation plan, was signed by the Gwich'in Tribal Council, Government of Canada, and GNWT. The agreement contains a section on resource royalties and economic measures which require that Gwich'in Nation is consulted if an economic development is proposed, as well as a discussion of employment and other programs. For example, any mining project proposed in the Mackenzie Valley will receive a share of mineral royalties, as per s. 9 of the GCLAP: specifically, 7.5% of the first $2 million in resource royalty received by government in that year, and 1.5% of any additional resource royalties.

Similarly, the Tlicho Land Claims and Self-government Agreement (2005) received royalties from projects as part of the agreement (GNWT Aboriginal Affairs and Intergovernmental Relations n.d.). The agreement was signed by Dogrib Treaty 11 Council, Government of Canada, and GNWT. The agreement includes a section on receiving resource royalties for the Tlicho Nation: they receive 10.429% of first $2 million and 2.086% of any additional resource royalties (Chapter 25) and other economic measures (Chapter 6). Moreover, the Sahtu Dene Metis and the Gwich'in comprehensive land claims agreements in the NWT require that a developer attempt to negotiate an access agreement with the First Nation (Kennett, 1999; Sosa and Kennan 2001).

2.2.3 Socioeconomic agreements and other agreements

The NWT has six SEAs: five involving mines and a natural gas project, with each containing commitments from the proponent and from the GNWT. The SEAs are for the following projects: BHP Billiton Ekati Diamond Mine, Diavik Diamond Mine, De Beers Snap Lake Mine, Mackenzie Gas Project, Prairie Creek Mine, and Gahcho Kue Project (GNWT, n.d.). The GNWT's commitments within these SEAs are yet not specific to any one of them, and are captured in annual reports for each of these projects. The GNWT releases two distinct annual reports:

i. Statistical information on key indicators (often titled "Communities and Diamonds") (GNWT 2015a)
ii. Implementation report of government programs and services relating to SEA commitments (GNWT, 2015b)

2.2.3.1 Mining

Each signed SEA differs in the negotiation requirements, the benefits generated, and its enforcement and monitoring tactics. As previously mentioned, the GNWT produces annual reports which detail their own commitments regarding socioeconomic benefits within signed SEAs**.** Since most projects with a signed SEA are mining projects, the annual report is entitled "Communities and Diamonds" and describes statistical information on key indicators of socioeconomic variables and how they are impacted by the mining industry (GNWT 2015a). As of 2015, four diamond mines in NWT had a SEA and were featured in these annual reports (Diavik Diamond Mine, Ekati Mine, Snap Lake Mine, and Gahcho Kue Project) (GNWT 2015a).

The SEAs have other monitoring mechanisms. For example, Dominion Diamond, the owners of Ekati and Diavik diamond mines, released a Socioeconomic Agreement Report in 2014 which addresses Aboriginal leadership, recruitment initiatives, scholarships, and women in non-traditional roles, among other affairs (GNWT 2014). Similarly, the Diavik Diamond Project

Socioeconomic Agreement includes a SEA Monitoring Agreement (1999) between Diavik and the GNWT to provide training, employment, scholarship programs and business opportunities to local Aboriginal peoples (NRCan 2014a) It has been ratified by five Aboriginal groups through individual Participation Agreements (NRCan 2014a).

There is some variation across the agreements on how much enforcement is expected. The Comprehensive Study Report (CSR) for the Diavik Diamonds Project affirms the requirement for the proponent to enter into a SEA, as a formal mechanism to make certain that mitigation measures, Diavik's commitments, and the obligations listed in the CSR are appropriately implemented and monitored (Bankes 2007). The Diavik Diamond Project Socioeconomic Agreement also confirms this statement in s. 17.14.1 (Bankes 2007). Moreover, the Diavik SEA explicitly states it aims to enforce the environmental assessment's socioeconomic recommendation (Gailbraith 2005). Contrastingly, the Snap Lake and Ekati Diamond Projects' agreements did not list this explicit aim, and, instead, only list provisions (Galbraith 2005).

Certain projects have multiple agreements between the proponent, government or Aboriginal communities, which may not always take on the form of a SEA. For example, the BHP Billiton Ekati Mine has several agreements, including a BHP Billiton Ekati Mine Project Environmental Agreement, BHP Billiton - Government of the Northwest Territories Socioeconomic Agreement (1996) and four impact-benefit agreements (IBAs) with Aboriginal communities (Northern Alberta Development Council 2013). The project's IBAs require funding of an independent monitoring program and the submission an annual report to the signing First Nations (Sosa and Kennan 2001). Quotas or target levels were set for northern residents in employment and business (Keeping 1998; Northern Alberta Development Council 2013). Moreover, the Minister of the Department of Indian Affairs and Northern Development made granting of a water license for this project conditional on a satisfactory negotiation (Sosa and Kennan 2001). Hence, the proponent, BHP Billiton, entered into IBA negotiations (Sosa and Kennan 2001). The IBAs included commitments concerning economics (no profit clauses, annual cash payments, annual compensation), employment, training and education (annual payments), community development, partnerships, goods and services contract opportunities, environment, and the duty to consult/engagement.

2.2.3.2 Gas Pipelines

The SEAs for gas pipelines are similar to those for mining projects, but the benefits received are sometimes different due to the nature of the activity. While the construction and operation phases of a mining project employ more people with skills, a gas project's construction phase is comparatively short and employment declines during the operational phase (Bankes 2007). Even so, the Mackenzie Gas Project Socioeconomic Agreement (MGP SEA) has some consistencies with the other SEAs (NWT 2007). The MGP SEA is most similar to the Snap Lake SEA, rather than the BHP Diamonds and Diavik Diamond Project, largely due to the timelines of the projects (Bankes 2007). The agreement utilizes MGP predictions and commitments made during the environmental assessment review, tries to enhance project performance, and broadens societal cumulative effects monitoring, operational monitoring, and adaptive management (NWT 2007; Bankes 2007).

The GNWT and Aboriginal communities also play a role in capturing socioeconomic benefits from the Mackenzie Gas Project. The GNWT committed from the outset to contribute to an oil and gas industry training fund, to build residents' capacity to take advantage of employment opportunities, to provide support for NWT businesses, and to produce an annual report (NWT 2007; Bankes 2007). Meanwhile, Aboriginal communities negotiated access and benefit agreements, which contained conditions for training, skills development for businesses, cost of travel to the construction site, and the generation of 3000 jobs for people from the NWT.

2.3 Different benefits in SEAs

The Communities and Diamonds annual reports evaluate the impacts of projects with a SEA. The evaluation is according to the GNWT Sustainable Development Policy five-point framework: (1) community, family and individual well-being; (2) cultural well-being and traditional economy, (3) non-traditional economy, (4) net effect on government, and (5) sustainable development (GNWT 2015a). The evaluation is performed according to indicators identified in the SEA, which can be grouped under the framework's themes. Table 3 provides a broad list of the indicators used within different NWT SEAs and evaluated in the Communities and Diamonds report. The indicators under each of the variables cover diverse topics. For example, within the average income indicator of the non-traditional economy variable, the GNWT has an Income Assistance (IA) Program to help individuals and families who cannot pay for basic needs (i.e. food, shelter, utilities, clothing and disability allowance) based on their current income and other factors, including size of family and the living location. Different vocabulary may be used for different projects and SEAs.

Table 3: Indicators of the GNWT Sustainable Development Policy Five-Point Framework

Community, family and individual well-being	Cultural well-being and traditional economy	Non-traditional economy	Net effect on government	Sustainable development
number of potential years of life lost	ratio of home language use to mother tongue, by major age group	average income	net effects on government of project	secondary industry data and initiatives
number of injuries	percentage of workforce-aged group engaged in traditional activities	number of social assistance cases		
number of suicides		employment level		
number of communicable diseases		high school completion		
lone-parent families		registered businesses, bankruptcies and start-ups		
number of teen births				
number of children in care				
number of complaints of family violence				
number of alcohol and drug -related crimes				
number of property crimes				
housing indicators				

Source: GNWT Communities and Diamonds Annual Report (2015a)

While SEAs in the NWT are not always structured according to the GNWT Sustainable Development Policy five-point framework, they do address most of the indicators within their agreements, though sometimes inconsistently across projects. The GNWT SEAs are structured under broader themes, for instance: employment and training, social issues, health and wellness, housing, and business development. The themes still address some of the indicators within the framework and are elaborated on in the Schedules of the agreement. For instance, the BHP Billiton Ekati Diamond Mine Socioeconomic Agreement addresses community health and wellness in Schedule D and E of the agreement, first by listing the indicators and then by providing baseline data while will be used during the monitoring of the indicators. Moreover, while Ekati Diamond Mine SEA contained many indicators within the community, family and individual wellness section of the framework, it did not address the cultural well-being and traditional economy, sustainable development, and the net effect on government sections as thoroughly as the Diavik Diamond Mine SEA.

2.4 Implementation of SEAs and reporting

2.4.1 Annual implementation reports

As part of the GNWT commitments, the annual implementation reports detail government programs and services relating to SEA commitments (GNWT 2015b). The annual reports cover several agreements without distinguishing how the socioeconomic variables of each agreement are impacted individually. The general annual reports are a collaboration among departments (ITI, ECE, HSS, Justice and Housing Corporation), addressing: training and career development, crime, family violence, housing, mental health and addictions, business development, and other issues. Information about socioeconomic benefits for specific projects can be found in each project's annual implementation: the annual Snap Lake Implementation Reports (2010, 2011, 2012) or the semi-annual (January to June/ January to June) Diavik Implementation Report (2010, 2011, 2012) are examples. Individual projects can also have monitoring agreements, such as the GNWT Implementation Report on Commitments Under Snap Lake Socioeconomic Monitoring Agreement.

Many of the indicators tracked in the Communities and Diamonds Annual Report are matched with initiatives and programs to improve those indicators. For instance, the following benefit indicators have a set of programs to ensure the implementation of the government and company's commitments. First, the GNWT Annual Implementation Report (2015b) cites that the mining industry and its SEA commitments has provided training programs and resources for over 1,8000 individuals in Yellowknife, Detah and N'dilǫ, as well as to over 170 individuals in the communities of Behchokǫ̀, Whatì, Gamètì, Wekweètì and Łutselk'e. The GNWT has programs such as the NWT Job Futures, career counseling services, and career fairs, which promote employment and careers in technology, science, engineering, and mining. Second, the GNWT also funds programs, such as the Community Justice Program and Committees, that promote health and wellness among the communities affected by potential projects, such as initiatives to combat family violence, violence against women, and general crime. Third, the GNWT is receptive to the concerns of communities and attempts to address these concerns within the Implementation Reports. For instance, a concern brought forth at a SEA-related community meeting highlighted that increased income from mining employment may increase rent for tenants who cannot afford it. The 2015 Implementation Report hence introduced the income ranges assessment to ensure

tenants can earn extra income without having their rent increased. Lastly, the GNWT Department of ITI provided over $4.1 million through Support for Entrepreneurs and Economic Development (SEED) programs to encourage local business development.

2.4.2 Other implementation measures

Certain projects also occasionally denote the mitigation measures and implementation of specific domains of good practices for the partnership during agreements. For instance, the BHP NWT Diamonds Project contains mitigation measures and implementation of seven determinants of health (e.g. income and social status, social support networks, education, employment and working conditions, physical environments, personal health practices and coping skills, health services) (Kwiatkowski and Ooi 2003). Additionally, several SEAs establish advisory boards to encourage open communication, such as the SE Monitoring Agency for Snap Lake Diamond Project (Galbraith 2005). The advisory boards are composed of the "parties to the agreement," such as the company, GNWT, and designated impacted Aboriginal groups. The advisory boards ensure that the SEA uses language that evokes a sense of partnership, provide information and advice to communities, provide opportunities for public participation, make recommendations for mitigations measures, or issue annual report presented at public meetings. Other projects, such as the Ekati Diamond Project, only have provisions for an *ad hoc* committee that ensures the agreement is implemented (Galbraith 2005).

3 Instrumentation for ensuring and delivering socioeconomic benefits

In this section, we explore the **broad categories of policy instruments** that are used to increase the socioeconomic benefits from natural resource extraction projects.

3.1 Legislation

3.1.1 Development enshrined in law

Legislation is the bedrock tool for governments, but it is not without its critics. Public regulation has been effective in addressing impacts of resource development, including environmental standards. Legislative tools have been criticized as being inflexible, inefficient, cumbersome, and costly for industry. Reasons associated with the inefficiencies include inadequate funding by government, reluctance to prosecute and impose penalties, failure to incentivize performance above minimum standards, risk of regulatory capture, and political realities (O'Faircheallaigh 2015). Globally, there has been a movement to deregulation and streamline project approval processes (O'Faircheallaigh 2015). However, there are many examples of success using legislation as a tool to accrue benefits from resource development, branding legislative tools as an approach to avoiding the resource curse (Dupuy 2014).

More flexible solutions, such as community development agreements, have been mandated in some countries' laws. Enshrining community development requirements into mining laws has become increasingly popular. Since the year 2000, thirty-two countries have adopted or amended mining laws to include community development requirements (Dupuy 2014). This legislative tool has proven effective at addressing mining impacts beyond simply mitigating impacts. Dupuy (2014) argues that this has resulted in real social and economic gains for communities. Despite

lack of support from industry, there is a movement towards this type of legislation (Dupuy 2014; World Bank 2010).

There is an international precedent of financing community development through mining projects. Utilizing mining development as a stepping stone towards sustainable development has an international precedent. The concept was first introduced in 1992 at the Rio Declaration on Environment and Development, and reinforced at the Johannesburg World Summit on Sustainable Development in 2002 (Dupuy 2014). This precedent has been catalyzed by a growing recognition that the benefits of mining are national while the costs are borne locally.

There is some evidence that enshrining community development into mining legislation is an effective way to benefit from mineral development. When community development is enshrined in the jurisdiction's legislation, both voluntary private initiatives and international norms have been successful at promoting community development, argues one recent paper (Dupuy 2014). One potential reasoning is that this type of legislation signals to investors that the area is safe for investment because there is clarity about the company's responsibilities towards local communities, thereby decreasing the potential for conflict (Dupuy 2014). For example, Sierra Leone's *Mines and Minerals Act (MMA)* was adopted in 2009, requiring 0.01%[9] of companies' gross revenues to be spent on implementing a benefit agreement, which companies are mandated to enter into with local, affected communities. According to Dupuy (2014), *MMA* has been successful at creating a stable investment climate, bringing both direct and indirect benefits to Sierra Leoneans.

The legislative framework surrounding resource revenue sharing affects communities' ability to negotiate benefits from resource development. A government's presence and policy framework are the foundations of successful negotiation and implementation of resource benefit sharing programs. The policies, frameworks, and stability of government shape the agreements that communities make and, thus, the benefits accrued from resource development (RESOLVE 2015). Another recent study argues that clear rules are key to promoting mineral investment (RESOLVE 2015). It is argued that governments must provide institutional support for companies and Indigenous peoples, have presence in resource project regions, have good communication, remain neutral, and clarify their role, expectations, and the rules of community-company interactions (RESOLVE 2015). Moreover, the legislative regime under which a benefits agreement (BA) is negotiated is important for the outcome of the agreement, according to recent papers and reports, because it affects the bargaining power of each party, which affects the benefits that can be gained by the community from resource development (O'Faircheallaigh 2015; RESOLVE 2015). Governments can support communities by developing a framework that maximizes community bargaining power.

Enshrining the idea of Free Prior and Informed Consent in law improves peoples' ability to negotiate benefits from resource development. Free, Prior, and Informed Consent (FPIC) is ingrained in national law in Australia, Peru, and the Philippines (IIED 2012). When employed correctly, including the FPIC concept in legislation recognizes that Indigenous peoples have a right to self-determination and gives them mechanisms to protect their traditional domains and resources

[9] The legislation requires expenditure of 1% of 1%, but there is some controversy about whether it is really meant to be that low, with mining companies pledging a full 1% to community development (Dupuy 2014).

therein (Oxfam America 2013). In the case of the *Indigenous Peoples' Rights Act (IPRA)* in the Philippines, FPIC means Indigenous peoples must be given adequate and accessible information, and consensus is according to customary laws and practices and free of external coercion or manipulation, and is required before mineral development (Oxfam America 2013). Furthermore, enshrining FPIC in law mandates that companies adhere to the concept (IIED 2012). For example, ConocoPhillips is committed to entering into a written agreement with each community documenting consent and agreed-upon compensation package details with each community when operating in Peru, a country where FPIC is legislated (RESOLVE 2015). However, legislation is only as good as its implementation and the ability to adjust it to address discovered faults (Oxfam America 2013). In the case of *IPRA,* the government implemented new rules in 2012 in response to issues raised by Indigenous groups. Overall, ingraining FPIC in law is a tool to have meaningful engagement with Indigenous communities regarding decision making, as long as the law is implemented effectively (Oxfam America 2013). Meaningful engagement is the first step to securing benefits from resource development. It is international best practice to also consult and negotiate with non-Indigenous communities using the FPIC framework (Loutit et al. 2016).

Legislative tools are vulnerable to political realities (O'Faircheallaigh 2015). In Canada, for example, legislation that regulates assessment and impacts of large resource projects, the *Canadian Environmental Assessment Act* or *CEAA*, was changed upon introduction of *CEAA, 2012* (Gibson 2012). *CEAA, 2012*, according to researchers Kirchoff et al. (2013), promotes economic growth over environmental protection. As a result of being brought into force through omni-bus Bill-C38, *CEAA, 2012* was implemented without full discussion of the implications (Kirchoff et al. 2013). Similarly, political realities in Australia have resulted in national government delegating environment regulation to states while the states are simultaneously cutting back their environmental management systems. In the state of Queensland, for example, 1400 environmental regulation jobs were eliminated, legislation protecting rivers was removed, funding of the local Environmental Defenders Office ceased, and members of the public who have concerns about environmental law breaches have less access to the judicial system (Caripis 2013). These examples demonstrate the vulnerability of legislative tools for receiving benefits; the nature of most legislative regimes leaves laws vulnerable to change under political value shifts.

If an agency is captured, legislative tools may become ineffective. According to Fluker (2011) and O'Faircheallaigh (2015), Alberta's Energy Resources Conservation Board (AERCB) is an example of a captured regulator. AERCB legislation requires it to consider the public interest when making decisions, but, according to these researchers, the Board grants virtually all applications, often based solely on the applicant company's application, and rarely allows public participation in decision making (Fluker 2011; O'Faircheallaigh 2015). Moreover, participation is by invitation, and often only nearby residents are invited. There is reluctance by the Board to invite participants because the participants must be heard regarding the decision, yet talking to the Board is the only opportunity for public participation in project decisions apart from environmental assessment. Fluker (2011) argues that the legislation outlining the AERCB and the public participation process is more participatory in nature than current AERCB practice, and suggests that the Board should not have its own power to decide who is consulted regarding project applications.

3.1.2 Fiscal tools

Taxation is one of the primary ways in which governments get money from resources that can then be turned into societal assets. The revenue from taxation is used as public spending in communities, for infrastructure and other projects, thereby working as a mechanism by which the local community and jurisdiction can benefit from resource development in their area (Radon 2007). A variety of fiscal instruments are commonly used to capture resource development benefits, including income tax, royalties, dividends, interest withholding tax, land rental, and equity participation (Radon 2007). Because there is a 'transfer' of resources belonging to the people to the company, Radon (2007) argues that regular income taxes alone are not enough to compensate for the depletion of societal resources. Furthermore, taxes allow the state to capture price increases, as opposed to a direct sale framework (Radon 2007). National level taxation generally contains a variety of different fiscal instruments from land rental to royalties, income tax, and various withholding taxes. Some of the tax rates are included in Table 4, below. Finally, signing bonuses, both on their own or in conjunction with taxation, are a way government can secure timely compensation (Radon 2007; O'Faircheallaigh and Gibson 2012), but they often come at the expense of future revenues. Collecting resource rent, using this rent to diversify the economy, and not over-investing in resource extraction capacity are key ways government can use resource extraction to spur sustainable economic prosperity (Gunton, 2003).

Table 4: Mineral tax rates

Jurisdiction	Corporate Income Tax (top rate)	Mineral Tax Basis	Mineral Tax	Other Tax	Other Tax Basis	Other Tax Rate
Canada	15%	n/a	n/a	n/a	n/a	n/a
Quebec	11.9%[10]	Adjusted profit before tax	16%	n/a	n/a	n/a
Ontario	11.5%[8]	Adjusted profit before tax	5-10%	n/a	n/a	n/a
BC	11%[8]	Adjusted profit before tax	2-13%	n/a	n/a	n/a
NWT	11.5%[8]	Mine output value	0% (less than 10,000 value) / 5-14%	n/a	n/a	n/a
USA (federal)	35%	Revenues (turnover)	0% / 8-12.5% (coal)	Excise tax on coal	Exports	4.4%
Mexico	30%	n/a	n/a	Flat tax	Income less expenses	17.5%
UK[11]	20%	n/a	n/a	1-Climate change levy 2-Aggregate levy 3- Landfill Tax	1-emissions 2-extraction 3-disposal	1-varies 2-£2/ton 3- £2.5/ton or £8/ton
Australia	30% (federal level)	Volume extracted	2.7-2.5% (state level)	n/a	n/a	n/a
Russia	20% (federal) 15.5 % (state)	Value or quantity of extracted mineral resources	4.8-8% (except coal, which varies)	n/a	n/a	n/a
Botswana[12]	22 - 55%	Profitability ratio	10% (precious stones) 5% (precious metals)	n/a	n/a	n/a

[10] Provincial and Territorial Income Tax rates from PWC (2013).
[11] Facts about the UK from EY (2014a).
[12] Facts about Botswana from EY (2014b).

			3% (other)			

Source: Data from PWC (2012), unless otherwise noted.

In the case of state-owned resources, common practice in the oil and gas sector is to have one of three agreement types (Johnston 2007). The first is a concessionary or royalty/tax system. In this paradigm, the company must either not "lift" the percentage of the resource corresponding to the royalty, or pay that percentage back to the state in cash (Johnston 2007). These are known as concession, royalty, or license agreements, and grant an oil company the right to explore, develop, sell, and export the oil in the area that the company has rights to (Radon 2007). The second type of agreement is a contractual production sharing system. In this case, the state retains the title to the hydrocarbons, the state-run company manages the resource, the contractors get their budgets and work programs approved by the government, and the profit from resource extraction is then split between the contractor and the state-run company (Johnston 2007). These types of agreements explicitly demonstrate that oil ownership belong to the people, but the oil company manages and operates the endeavor (Radon 2007). Finally, the third type of agreement is a contractual service agreement. Here, a contractor is paid to produce the resource but has no entitlement. The amount paid to the company can be either a fixed dollar per barrel, a percentage of costs, or a variable fee that correlates with gross revenues (Johnston 2007). Essentially, these types of agreements provide payment for specific tasks or services with key management decisions remaining with the government. Often, this third type of agreement is common in countries that have direct control over their natural resources. However, large companies do not have incentive to enter these agreements because of the compensation schemes inherent in this design (Radon 2007). A list of oil and gas taxes in different jurisdictions is listed in Table 5.

Table 5: Oil and gas taxes

Jurisdiction	Corporate Income Tax (top rate)	Royalty	Rent	Other Taxes	Other tax description	Other Tax rate
Canada	15% (federal)	10-45%	n/a	n/a	n/a	n/a
NWT[13]	11.5%	5-10%	$2.50/ha (first term) $5/ha (after)	n/a	n/a	n/a
Alberta[14]	12%	1-40%	n/a	n/a	n/a	n/a
USA	35%	Up to 30% onshore, up to 18.75% offshore	n/a	Severance Tax	Based on product extraction	Variable
Alaska[15]	0-9.4%	5-60% (usually 12.5%)	n/a	n/a	n/a	n/a
UK	30%	n/a	n/a	1- Supplementary charge rate 2- Diverted profits tax	1- Exploration and production activities 2- Profits diverted from ring-fence	1- 10% 2- 55%
Australia	30%	10-12.5%	40%	n/a	n/a	n/a
Norway	25%	n/a	53%	n/a	n/a	n/a

[13] Facts about NWT's royalty and rent rates are from NWT Reg-015/14.
[14] All facts about Alberta are from PWC (2012).
[15] All facts about Alaska are from Let's Talk Royalties (n.d.)

Russia	20%	$14.3/ton (oil) $0.6/1000m^3 (gas) $0.7/ton (gas condensate)	n/a	Export duty	35-45% on oil, 30% on natural gas, 0% on LNG	n/a
Nigeria	85% 67.76% (new companies during first five years)	20% (onshore) 0-16.67% (offshore) 18.5% (territorial waters and continental shelf)	~16.35USD/km^2 (during exploration) $10USD/ km^2 (not producing) $20USD/km^2 (producing)	n/a	n/a	n/a
Angola	n/a	50% (with PSA)/ 65.75% (with partnership and Risk Service Contract)	$300 USD/km^2	1- Petroleum production tax 2- Petroleum transaction tax 3- Training tax	1- Quantity of resource at wellhead 2- On taxable income 3-Production or flat rate	1- 20% 2- 70% 3- $0.15USD/ barrel $100,000/year prospecting license $300,000/year if exploring

Source: Data from EY (2016), unless otherwise noted.

3.1.3 Environmental impact assessment

Excellent environmental impact assessment design selects projects that have the best opportunities with minimal impacts, and has some way to ensure requirements are monitored, adjustable, and enforced (Gibson 2012). According to Gibson (2012), the best environmental impact assessments (EIAs): apply to all potentially significant projects; ensure integrated attention to biophysical, social, and economic considerations; begin at the beginning of project deliberations; focus attention on the most important items, effects, and opportunities; facilitate open public engagement and learning; aim to select the best option for enhancing benefits while avoiding or mitigating impacts; make decisions that are consistent, impartial transparent, and accountable; and have a means of enforcing requirements. Noble (2010) lists many advantages of doing an EIA. These include: improving project design and planning; foreseeing impacts, thereby allowing costs to be identified and mitigated; forcing early consideration and integration of the environment into planning and decision making; identifying options to integrate environmental, social, and economic considerations; providing a forum for public debate about the nature and direction of development; facilitating learning and informed decision making; and potentially increasing projects' transparency and public acceptance.

EIAs give the public, communities, and municipalities an avenue through which they can influence projects and ask for benefits. According to recent literature, EIAs, when designed effectively, are one of the best avenues through which the public can participate in project development and ask for benefits (Kirchoff et al. 2013). Furthermore, it is an avenue through which affected people can be heard (Loutit et al. 2016). In fact, researchers Loutit et al. (2016) argue that public participation and informed decision-making from EIAs can improve the project's financial performance by curbing costly conflict between the company and community that is resultant from unmitigated social and environmental impacts of the project. During the EIA process, the community or municipality interacts with the project proponent and can often acquire benefit commitments through the EIA permit. Moreover, if EIA legislation is designed to do so, jurisdictions using EIA permits to acquire benefits tie these commitments to the project so benefits continue even if the resource development is sold (Heisler and Markey 2014). However, Heisler

and Markey (2014) point out that municipalities may be dependent on the goodwill of companies when negotiating for economic development benefits, as is often the case in British Columbia.

The design and structure of EIAs is important for the public's ability to draw benefits through this tool. According to Kirchoff et al. (2013), the change from *CEAA 1995* to *CEAA 2012* has resulted in fewer projects having to go through environmental assessment review. As a result, it could be argued that this change has resulted in reduced opportunity for the public and affected parties, including First Nations, to participate in EIA and benefit from resource development through this avenue (Kirchoff et al. 2013). Contrastingly, the Canadian Centre for Community Renewal (CCCR) (2009) highlight the case of the Voisey's Bay mine in Labrador. Here, the EIA process required a panel report accepted by the federal, provincial, and territorial government. Because of the necessity of their approval, the Innu and Inuit in the region could negotiate and secure their community members' involvement in the EIA process. The local communities did the baseline study for the EIA, and environmental monitors for the mine are funded by the project proponent, but are employees of, and report to, the community.

3.2 Agreements

3.2.1 Benefit agreements (BA)

For consistency, the term benefit agreement (BA) will be used in this report to describe any agreements signed between a project proponent and a community. These types of agreements go by many names. In Canada, impact and benefit agreement (IBA) is commonly used, while Australia and the United States tend to use community benefit agreement. Other labels for this type of agreement include community development agreement, participation agreement, benefit sharing agreement, and negotiated agreement. The goal of any of these agreements is to share the benefits of resource development with the impacted community (Sosa and Keenan 2001). According to Sosa and Keenan (2001), these agreements like these are now considered to be a "*de facto*, unwritten, regulatory requirement in the North."

BAs are an approach to dealing with resource development impacts and benefits that is more certain than corporate social responsibility initiatives and more flexible than public regulations (O'Faircheallaigh 2015). Agreements between project proponents and the communities or jurisdictions they work in can help those people impacted by development to partake in its benefits, instead of solely being affected by the costs. Essentially, BAs give community consent for a project in exchange for benefits and project impact mitigation (O'Faircheallaigh 2015; RESOLVE 2015). For example, BAs can be used to secure a tax base for communities that can be used to fund development initiatives (O'Faircheallaigh and Gibson 2012). The agreements are negotiated by communities so their outcomes prioritize local interests. BAs, as a result, are often flexible and tailored to local management and benefit distribution preferences and priorities (O'Faircheallaigh 2015). Finally, according to O'Faircheallaigh (2015), a BA is theoretically a legally binding document, so the commitments made from project developers are not voluntary.

Communities are better able to negotiate benefits through BAs if the government has set up an effective framework, but there are other determinants of bargaining power. BAs do not inherently necessitate that the government provide funding or have a stance related to resource industries (O'Faircheallaigh 2015; Peterson St-Laurent and Le Billon 2015). However, governments can set up a legislative or policy framework that strengthens the community's

bargaining power (RESOLVE 2015; O'Faircheallaigh 2016). For example, Loutit et al. (2016) argue that Australia's *Native Title Act 1993* (*NTA*) burgeons communities' bargaining ability. *NTA* requires that companies that have received a mining license consult with Aboriginal families or communities whose interest in the land has been legally recognized, and gives the company the option of pursuing an Indigenous Land Use Agreement if they would like to achieve a greater breadth for consultation (Loutit et al. 2016). Some BAs negotiated under *NTA* give communities a large share of project revenues, firm training and business development commitments, robust cultural heritage protection plans, and authority over environmental management (O'Faircheallaigh 2015). However, the legislative framework surrounding BAs is not the only factor that matters for a community's success in negotiations. Experience with project development, the strength of local political organizations, the quality of political leadership, and the accessibility of financial and human resources and information can all influence the bargaining power of local communities (O'Faircheallaigh 2013; Knotsch and Warda 2009; Wright 2013). The weaker a community's bargaining power, the greater the chance of signing a BA that reflects the project proponent's priorities or is detrimental to the local community (O'Faircheallaigh 2013). Finally, the agreements themselves can be inclusive. In the case of the Diavik Diamond Project's Socioeconomic monitoring agreement, First Nation communities in specific regions close to the mine choose to become signatories and, once signatories, parties to the agreement (Loutit et al. 2016).

Confidentiality can hamper communities' bargaining power, but is sometimes asked for by communities. According to researchers Knotsch and Warda (2009) and Sosa and Keenan (2001), the confidential nature of most BAs inhibits communities from learning from other agreements or working together to strengthen their positions. Additionally, it is argued that confidentiality can limit the power and capacity of local communities because it prohibits them from communicating with the media or other stakeholders, as well as inhibits their ability to seek advice, support, or information as needed (Gibson and O'Faircheallaigh 2010). Loutit et al. (2016) contend that confidential agreements limit communities' ability to access older agreements, obstructing their ability to learn from the experiences of other communities (Loutit et al. 2016). However, in some cases a community may be motivated to include a confidentiality clause.

BAs are not perfect: communities must be wary of signing agreements that leave them in a worse situation. BAs are often negotiated by a small number of community members that have little knowledge or resources with which to negotiate (Peterson St-Laurent and LeBillon 2015). Due to inequitable capacity and negotiation powers, there is a possibility that communities will end up with inequitable benefits through BAs, even if they are experiencing similar impacts (O'Faircheallaigh 2015). For example, not all BAs negotiated under the *Native Title Act 1993* received the same benefits (O'Faircheallaigh 2015). Loutit et al. (2016) argue that the best companies assess the capacity of local communities. Furthermore, even if an agreement is well articulated, it may not be well implemented. If implementation fails or a BA is breached, recent papers suggest that some communities may lack the resources or capacity to respond or may not want to respond for fear that action will negatively affect their relationships and benefits (O'Faircheallaigh, 2015). To mitigate this, governments can set up policies that support BA success or include consequences in the agreement to address failures (O'Faircheallaigh 2003; O'Faircheallaigh 2015). Agreements in Australia and the US, for example, include fines that must be paid if minimum employment is not reached (O'Faircheallaigh 2015).

If designed well, BA-type agreements can bring a lot of benefits to communities. There are many examples of successful BA agreements. Natural Resources Canada (NRCan) (2014b) highlighted the Wabun Tribal Council's Exploration Agreement framework as an example. In this case, a standard Exploration Agreement must be signed by all exploration companies before entering the Council's territory (NRCan 2014b). The agreement includes economic benefit allocation, consultation and engagement requirements, cultural activity considerations, requirement of transfer should the company be sold, and requirement to commit to and fund future BA negotiations if the mine is to go ahead. Further, it mandates that there be a BA coordinator and committee for each BA signed to ensure the agreement is implemented (NRCan 2014b). According to NRCan (2014b), this framework has been able to maximize local benefits and build capacity within the communities. Researchers Loutit et al. (2016) highlight the Raglan Mine in Northern Quebec and the Argyle Diamond Mine in Australia as two of the most innovative BAs to date (Loutit et al. 2016). O'Faircheallaigh and Gibson (2012) argue that a well designed BA can bring in more financial benefits than revenue sharing with the government. Table 6 compares various taxation options that can be used in BAs, including the benefits and drawbacks of each.

Table 6: Local taxation options for mineral development

Taxation Option	Benefits	Drawbacks
Single upfront cash payment (uncommon)	• Least risk for jurisdiction • Entire financial benefit received regardless of project profitability	• High opportunity cost if project is more successful than anticipated • Less incentive to take on progressive development projects over short term initiatives • Inability to adapt to project changes • Higher risk and large upfront cost for developer
Multiple or ongoing fixed payments (common in NWT, Canada)	• Low risk for jurisdiction	• Risk of high opportunity cost if project is more successful than anticipated • Upfront and continuing for developer, regardless of project profitability • Inability to adapt to project changes
Royalties based on volume of production (common in Cape York, AUS)	• Reduced risk of opportunity cost to jurisdiction compared to fixed payments • Company doesn't have to pay until production starts, lessening initial financial burden	• Revenue tied to output, so risk of low revenue • Company pays as soon as production starts, even if the project is not yet profitable • Opportunity cost to jurisdiction if market value of mineral increases
Royalties based on value of production (ad valorem)	• Jurisdiction can capture mineral's market price increase	• Riskier to jurisdiction because benefit is tied to market price, which may fall

	• Company doesn't have to pay until production starts, lessening initial financial burden	• Incentive to trade unregulated commodities at manipulated prices • Little flexibility for company if production costs change
Payments based on profits	• Definition of profits is flexible and adaptable to each situation • Jurisdiction partakes in project success and profitability	• Revenues dependent on project's profitability, so not guaranteed • Payments delayed • Incentive to trade unregulated commodities at manipulated prices or on manipulated timelines to lower profits
Grant equity of project to benefiting parties	• Jurisdiction partakes in project success and profitability • Low risk for company: no payments due until project is profitable and dividends are paid	• Revenue is delayed until the project is profitable and bank dividends paid, which might be never

Source: Arguments from O'Faircheallaigh and Gibson (2012), table assembled by authors

3.2.2 Agreements with government

Loutit et al. (2016) describes three ways government can be involved in agreements. First, it can act as a facilitator for negotiations (Loutit et al. 2016). Second, government can be a third-party signatory (Loutit et al. 2016). This was commonly done in the Northwest Territories, where the agreements surrounding Snap Lake, Diavik, and Ekati mines were co-signed with the territorial government (CCCR 2009). The Raglan Mine agreement, however, is considered by some authors one of the most innovative BAs to date, despite some issues with implementations (Loutit et al. 2016; CCCR 2009), but did not have the government as a co-signatory. Finally, the government is able to be a full party to an agreement with either the community, as in the case of BC's revenue sharing agreements, or with the company, as is done in Saskatchewan with Mine Surface Lease Agreements. Loutit et al. (2016) assert that government is able to champion the implementation of BAs by signing an agreement with project proponents outlining what would be a breach of the BA and authorizing the government to terminate the agreement if necessary. Using this framework, it is argued that the state has more authority to ensure that the BA is enforced and community gets their benefits (Loutit et al. 2016).

Company agreements with the government can foster additional benefits for local communities. In Saskatchewan, companies operating on Crown land in the northern part of the province must sign a Mine Surface Lease Agreement (MSLA) with the Ministry of the Environment and the Ministry of Government Relations (NRCan 2014b). The agreement secures long-term rental of the land for the project proponent, but requires that the company make best efforts to maximize benefits for local communities and report on their success every year (NRCan 2014b). Best efforts to maximize benefits includes signing a Human Resource Development Agreement, taking a collaborative approach to designing effective local recruitment, training, and career advancement opportunities for local people, and overall augmenting locals' capacity to take advantage of current and future development. Furthermore, the MSLAs guarantee additional benefits, such as compensation for lost income for traditional land users affected by development, and programs to support education, community vitality, employee services, and public involvement in nearby communities (NRCan 2014b). According to Natural Resources Canada, the

success of the MSLA framework is a result of a long-term vision, uniformity across the industry, and high levels of commitments to training local people, engaging the public, and reporting to government, and these factors make the northern Saskatchewan mining industry a leader in Aboriginal employment and business procurement.

Agreements between government and communities, such as agreements made under BC's resource revenue sharing policy, can bring more income into Indigenous communities. BC's revenue sharing policy states that affected Aboriginal groups will receive a negotiated share of the mineral tax revenue from certain major new mining projects and some expansions of current projects (McMillan LLP 2009). This policy aims to share government revenue from resource projects with the local community, thereby sharing the benefits of resource development with the community at the expense of government revenue. The factors that affect the amount of revenue shared include the Nation's strength of claim on the area, objectives and context of the situation, the amount of money payable to the Crown from the project through BC's *Mineral Tax Act*, population of the group, potential future developments in the area, and benefits secured by the community through any BA (McMillan LLP 2009). Some critiques of the policy are that money is delayed until the mine is producing, which is often two years after commencing construction (McMillan LLP 2009).

Government to government revenue sharing agreements can also support municipalities during times of resource development. Heisler and Markey (2014) suggest a resource-sharing framework could be applied to other, non-Indigenous communities as well. An example of this type of agreement comes from the Peace River region of BC. Here, the municipality created the Peace River Fair Share Agreement (FSA) to get more tax revenue from the government to help pay for the additional infrastructure needed to increase resource development activity in the region (Heisler and Markey 2014). In the FSA, the amount of funding received by the municipal and regional signatories is indexed to the property values of the industrial property tax base. In 2015, the FSA was renegotiated, and the new agreement, the Peace River Agreement, is no longer based on property tax values and includes mandatory audits of municipalities to increase their accountability for fund use (City of Fort Saint John n.d.). According to researchers Loutit et al. (2016), the recognition that the governments are receiving most of the revenue for project development while the local communities and local governments are experiencing most of the costs is resulting in increasing prevalence of this type of revenue sharing (Loutit et al. 2016). As the NWT has a total of 38 communities considered remote by the Government of Canada (2011), totaling almost 42,000 residents, the largest population in remote communities of any province or territory. Communities such as these may be able to benefit from the sharing agreement frameworks employed in BC.

3.3 Land claims and court rulings

Settling Indigenous land claims makes it easier for First Nations to receive benefits from resource development in their traditional territory. In Canada, Aboriginal rights were included as part of the *Royal Proclamation, 1763* and affirmed in the *Constitution Act, 1982*. This legal recognition of Aboriginal title gives Indigenous peoples in Canada the authority to litigate against the projects (Economist 2016). Comprehensive land claiming, according to Samson (2016) is a process through which Canada deals with Aboriginal rights. It came out of the *Calder v. British Columbia (attorney general), 1973* ruling and was subsequently enunciated in section 35 of the *Constitution Act, 1982* (Samson 2016). Court rulings can grant Aboriginal title in Canada which

means the authority can decide how land will be used, the right of enjoyment and occupation of the land, the right to possess the land, the right to the economic benefits of the land, and the right to pro-actively use and manage the land (Fraser Institute 2014). However, it was not until the *Delgamuukw v. British Columbia, 1997* decision that Aboriginal rights were not easily extinguishable: as a result of this decision, extinguishing requires consultation (Samson 2016). Court ruling and delays due to litigation of First Nations against resource development projects delays or even halts major development projects, such as the Northern Gateway Pipeline (Economist 2016) before it was eventually rejected by the Trudeau government. Furthermore, many nations gain authority over portions of their traditional territory through court rulings (Fraser Institute 2014). The litigation is long and can drag out, but it is argued that court decisions are a key tool for Indigenous Canadians to gain decision making authority over their land and capture the benefits of projects done on it (Economist 2016). By settling land claims among Indigenous groups, it becomes more possible to award benefits to communities impacted by development. For example, resource revenue sharing agreements in BC include strength of claim as a factor in deciding how much revenue sharing will occur (McMillan LLP 2009). Similarly, after settling the Labrador Inuit Interim Land Claim Agreement, the Inuit people were able to get 5% of royalties received by the province from the Voisey's Bay Mine (O'Faircheallaigh and Gibson 2012).

The *Tsilqot'n Nation v. British Columbia* decision sets an important precedent for Aboriginal title and rights in Canada. In this ruling, an area of 1700 square kilometers was recognized as being under Aboriginal title was recognized outside of an Indian Reserve for the first time in Canada (Fraser Institute 2014). This is the first case of the Supreme Court of Canada granting aboriginal title, so it sets a precedent for future decisions in Canada (Fraser Institute 2014). Recognition of the Aboriginal title means that future development in the area requires the consent of the First Nation that holds title: the Crown must consult if they wish development to happen. As decided in this ruling, however, project development is able to go through if the government can demonstrate that the public interest of the proposed activity is compelling and substantial. However, in this case, if the nation does not want the project, the court is able to set aside the project should the province fail to prove that the project is in the greater interest of the public (Fraser Institute 2014). As a result of the augmented authority of Aboriginal title following *Tsilqot'n Nation v. British Columbia*, there is increased uncertainty for project developers (Fraser Institute 2014). The decision sets a higher standard of engagement with first nations who have title and may have some uncertainty for economic development projects that are currently existing and planned (Fraser Institute 2014)

3.4 Voluntary corporate initiatives

3.4.1 Corporate social responsibility programs

Companies may aim to acquire a SLTO to avoid future delays and costs. To operate without community opposition, companies need a so-called social license to operate (SLTO) (Sosa and Keenan 2001). Smits et al. (2016) define a SLTO as receiving and being able to sustain approval for a project by stakeholder. The term was first used by mining executive Jim Cooney, but has become a widespread concept and commonly used term. Smits et al. (2016) state that while use of the term has increased, the meaning of SLTO is variable across industries. Some common themes include acceptance over the lifecycle of the activity and the ability to withdraw at any point (Smits et al. 2016). Acquiring SLTO is desirable to the company to avoid costs or delays (Smits et al. 2016). To acquire SLTO, companies often engage with the local community, which can include

signing a BA or undertaking a CSR initiative. As suggested by many researchers, resource development is a lengthy process, so acquiring a SLTO often comprises of building a relationship based on trust and understanding between the company and local or affected people (Smits et al. 2016).

Relationships between parties is often key to the success of CSR initiatives. Attention must also be paid to the relationship of parties involved or affected by resource development projects (O'Faircheallaigh 2015). Recent literature suggests that the quality of the company-community relationship is key to the agreement's failure or success. For instance, Rio Tinto's strategy is to develop strong and lasting relationships with local communities with a special focus on land and what land means to the local people. The company has built this framework from the understanding that land can be associated with historical and cultural heritage and the subject of conflict (Rio Tinto 2016). O'Faircheallaigh (2013) argues that community-company relationships are challenged by asymmetric capacity and bargaining power.

While CSR is increasingly widespread, it has its critics. According to O'Faircheallaigh (2015), a problem with CSR or initiatives sponsored by industry bodies are that these initiatives are voluntary, so can be abandoned under changing economic or managerial conditions. As a result, there is little guarantee to communities and governments whether mining impacts will be managed or benefits shared, especially in the long term (O'Faircheallaigh 2015). Without a mechanism that allows communities or groups to hold companies to their commitments, the voluntary nature of these initiatives may result in a gap between what is promised and what is delivered (O'Faircheallaigh 2015).

There are examples of failed corporate social initiatives. Not all companies have been successful in their social initiatives. For example, Hudbay Minerals has a commitment to protecting human rights, yet was sued by the Mayan people because their hired security forces committed human rights violations at the company's Guatemalan operation in 2009 (O'Faircheallaigh 2015). Similarly, Enbridge states that it is committed to environmental management that benefits all stakeholders, but did not use peer-reviewed research to assess caribou's ability to cope with its pipeline, as the company had implied. Instead, according to O'Faircheallaigh (2015), the company based its assessment on a slide show about caribou in another territory.

Many corporate social initiatives are successful. The BHP Billiton Forest Bond has been considered a successful initiative by O'Faircheallaigh (2015). The bond is innovated to reduce deforestation and stimulate low-carbon development investments through the REDD program (reducing emissions from deforestation and degradation) in Kenya. To do this, a price support mechanism is used to ensure that carbon credits can be sold each year until the bond matures, thereby reaching the minimum number of carbon credits needed to be sold each year to keep the REDD project sustainable. The IFC buys carbon credits from the Kadigay Corridor REDD project to pay investors a carbon credit coupon under the Forest Bond, then investors have the option of either retiring the credit or sell it on the carbon market (BHP Billiton 2016). On the development side, Rio Tinto has adopted the approach to negotiate BAs with all Indigenous communities regardless of legal requirements. The company provides funding to communities that included rules for use and provisions but is separated from the company so that the negotiator and staff are solely accountable to the community. This helps resolve negotiation capacity imbalances

(O'Faircheallaigh 2015). A second example is Mozal, a joint venture aluminum smelting company in Mozambique that is considered by some to be a leading example of CSR in that nation (Kaufmann and Simons-Kaufmann 2016). According to the Mitsubishi Corporation (2017), the company has explicit environmental, job creation, education, and training initiatives. Environmentally, the company aims to curb greenhouse gas emissions and treat industrial solid waste and waste water. On the social side, 95% of the plant's workforce are local people from Mozambique, and hiring of the local population commenced with plant construction. Finally, the company has a Community Development Trust, which aims to support education, health, sports, culture, and infrastructure as well as promote local agriculture and crafts (Mitsubishi Corporation 2017). This fund is financed through company profits and focuses on community development within 20km of the factory (Kaufmann and Simons-Kaufmann 2016). Royal Dutch Shell, additionally, invests in initiatives in the countries it works in, including in areas that are not directly connected to the location that the company is working in (O'Faircheallaigh 2015). Researchers Keenan et al. (2016) argue that companies with a strong policy or commitment to relationship building often have more inclusive engagement with local communities.

By instilling FPIC into company policies, companies optimize local content. When FPIC is integrated into company policy and goods and services are acquired locally, the IIED (2012) argues that projects experience increased project efficiency, better managed local job and business creation expectations, local relationship building, better understanding of what skills are available or can be built locally, and improved ability to optimize training and skills development. Furthermore, integrating FPIC, or ILO 169 into company policy is increasingly common (IIED 2012). By doing so, social investment and community spending more likely to be aligned with the local needs of the community, and local skill development and competency opportunities can be more easily identified and capitalized on for the benefit of the community (IIED 2012).

3.4.2 National / International bodies and norms

International norms set the tone for corporate-community relationships, but are discretionary. According to recent reports, international norms for consultation and Indigenous rights can influence the negotiating power of Indigenous communities, including their influence on projects and ability to secure benefits, as they set a baseline for company conduct (RESOLVE 2015). The UN Convention on Biodiversity, for example, sets a precedent for an international standard for Indigenous Peoples regarding fair and equitable share of benefits (RESOLVE 2015), and the ICMM have set out international guidelines for mining in or near Indigenous communities (ICMM 2015). According to recent literature, the guidelines and standards established by these bodies have the potential to influence the degree of community participation in project planning, improve environmental management, and augment economic benefits of community (O'Faircheallaigh 2015; RESOLVE 2015). However, much of the language used in these reports is discretionary, use of the phrase "consider using" for example, making it difficult for community to hold the companies to these standards (O'Faircheallaigh 2015).

The International Financial Corporation (IFC) Standards exemplify the influence of international financial institutions on corporate policy (Morgera 2007). The 2006 IFC Performance Standards detail rules and responsibilities that private sector enterprises must comply with if they receive funding from the IFC (Morgera 2007). These standards are based on international environmental law, and include the requirement that the company does not commit, or does mitigate, negative impacts on their workers, local communities, or the environment.

According to Morgera (2007), IFC standards are, in general, do no harm. Because IFC provides funding for private companies, Morgera (2007) argues that international standards, such as the these, majorly influence design and implementation of development projects.

However, international initiatives have varying degrees of success. In a recent paper, O'Faircheallaigh (2015) names the World Bank's Indigenous Peoples Policy as an example of a sub-par international policy. He argues that, under these guidelines, impact analysis was often not done well and impacts on Indigenous people were not mentioned or not considered in the long term (O'Faircheallaigh 2015). Dupuy (2014), contrastingly, found in her recent analysis that participation in the Extractive Industry Transparency Initiative correlated with countries adopting community development requirements into their mining legislation, indicating that this initiative is successful. All in all, these examples point to international standards' high degree of influence over extractive industry corporations' behavior, but that the policies must designed well to be effective.

The Mining Association of Canada's "Towards Sustainable Mining" (TSM) is a mandatory program for members that guides environmental and social responsibilities. TSM has a set of "guiding principles" around community engagement, environmental management, and health and safety and is overseen by an independent advisory panel (MAC 2016). All MAC members must publish their performance against a number of indicators like "tailings management system" and "crisis management preparedness" with mostly self-assessed grades assigned, but also an external verification process for some of the facilities. MAC's progress report (2016, and in the online appendix) indicates substantial progress against the different indicators. The TSM system has been recently adopted by Finland's and Argentina's mining industry associations, as well as the provincial industry associations in British Columbia and Quebec.

3.5 Multi-stakeholder approaches

3.5.1 Resource-led development funds

The use of development funds is fairly widespread. In Canada, NRCan (2014b) highlights Quebec's Aboriginal Mining Fund (AMF) as a leading example. In this case, the fund provides financial resources for Aboriginal peoples in the area to participate in mineral resource development. Goals of AMF include: developing high level of expertise in Aboriginal communities to promote job creation, making local communities aware of exploration and development, and encouraging creation of Aboriginal-owned businesses that can operate in mining sector (NRCan 2014b). Heisler and Markey (2014) highlight the Northern Development Initiative Trust in BC. This trust aims to promote the cooperation and regional branding of multiple municipalities. Through their combined capacity, the region is supposed to be better able to attract development projects (Heisler and Markey 2014). However, a drawback is the competition between cooperating municipalities for where the actual resource development will occur (Heisler and Markey 2014). Internationally, the RESOLVE (2015) report describes Peru's voluntary social contribution funds. This fund is managed and distributed by the Cerro Verde Civil Association, an association that includes government, community, and company members, and its main goals are to provide basic needs, such as health, nutrition, infrastructure, and education (RESOLVE 2015). We consider these resource-led development funds to be distinct from resource-related sovereign wealth funds, which we describe more in section 4.5.

3.5.2 Collaboration

Collaborative planning processes can resolve conflict and build participants' capacities (Frame et al. 2003), but it is not without its critics. Researchers Gunton and Day (2003) argue that a collaborative planning process commonly results in outcomes that best serve the public interest, because it originates from interactions and conversations of those involved in whatever issue is at hand. Additional benefits include increased knowledge and a better relationship among stakeholder. According to many researchers, collaborative planning methods are effective, and generate solutions that have a high level of stakeholder buy-in and are in the public interest (Frame et al. 2004; McKinney and Field 2008; Cullen et al. 2010). Furthermore, Heisler and Markey (2014) suggest that collaborating stakeholders can increase their bargaining power and negotiation capacity when faced with new development, as was the case with the Community Sustainability Committee in Mackenzie region of British Columbia. Overall, the popularity of collaborative planning processes has been increasing (McKinney and Field 2008). However, Gunton and Day (2003) suggest that a number of important phases and steps (which are detailed in their paper) need to be met to have a successful process. Recommended best practices for successful collaborative planning processes can found in Frame et al. (2004). Some researchers warn that interests such as environmental protection may be ignored during a collaborative planning process if it is not represented at the negotiation table, and that sometimes the solution is critiqued as being the lowest common denominator solution that is agreeable to all stakeholders (Susskind et al. 2003; Brower et al. 2016). Moreover, this process can be less accountable due to the diffusion of decision making power (Frame et al. 2004). Finally, this process has been critiqued as ineffective for Aboriginal peoples when they are involved (Cullen et al. 2010; Morten et al. 2011). All in all, however, the popularity of collaborative planning is on the rise (McKinney and Field 2008), and some researchers consider this framework the most effective solution to governing resource booms (Cheshire et al. 2014).

3.6 Government participation

While the orthodoxy amongst advisory organizations is to prescribe market-led resource development—in which the government taxes and regulates, and private firms undertake the extraction and marketing of the resources—some countries have done very well through active government participation in the business ventures on their own territory. National oil companies (NOCs), those oil companies owned by national governments, have been associated with inefficient subsidies, operational inefficiencies, weak corporate governance, and conflicts of interest (Tordo 2011). Yet they nonetheless control some 75 percent of global oil and gas production. In mining, there are major state-owned enterprises as well, although they are concentrated in a handful of countries, and represent around a quarter of metals value mined (Ericsson and Lof 2011). Used well, nationally-owned resource companies have been able to meet public policy goals while delivering financial returns.

3.6.1 Statoil in Norway

Statoil, Norway's partially-privatized oil and gas producer, has played a central role in the development of Norway's hydrocarbon ecosystem (Heum 2008).[16] Still majority owned by the Norwegian government, Statoil is now a major multinational energy company with operations in more than 30 countries around the world. When oil production started in Norway in 1971, there

[16] All facts and quotations from this paragraph are from Heum (2008).

was little industrial capacity. By the 2000s Norwegian companies in the supply chain were not only servicing Norwegian fields but nearly half of their sales were foreign. Statoil was founded as a 100-percent government owned company to "counterbalance the international oil companies operating on Norway's continental shelf" and, besides its commercial goals, was seen as an "instrument in implementing government policies." Two other Norwegian companies were also cultivated, Norsk Hydro (originally 51% state owned) and Saga (100% private owned), so as to generate competition and experiment with different strategies. As part of the government's policy to develop Norwegian companies in the supply chain, Statoil informed domestic industry on its future plans to give them a heads-up on thinking about solutions which they could then bid for, having a leg up on foreign competition. In 1985, the government gave Statoil a pure commercial mandate, with no policy action required; in 2001 Statoil became listed on the stock exchange, and by 2007 Statoil merged with the then-merged companies of Norsk Hydro and Saga.

3.6.2 Debswana in Botswana

Debswana, a 50-50 joint venture between De Beers and the Botswana government, has allowed Botswana to capture a large share of the rents from diamond mining as well as integrate the diamond activity with national development plans (Wilcox 2015).[17] Originally the De Beers Botswana Mining Company, in which the government held a 15 percent stake, in the mid 1970s upon discovery of further diamond resources, the government, consistent with its Mines and Minerals Act, increased its stake in the company to 50 percent. Successful exploitation of this resource led Botswana's GDP per capita to increase from $467 in 1965 to over $7000 in 2015, measured in 2010 prices.[18] Botswana's "semi-directed" model of mining regulation, bridging private enterprise and extensive state direction, has utilized: mining licenses that require a minimum level of beneficiation; fiscal rules that rely on well developed national development plans; good and transparent governance; and Debswana's corporate social responsibility programs that feed into the national plans. As a result of these policies, diamond sales and aggregation, as well as diamond cutting and polishing, were brought to Botswana by De Beers.

Government direct investment in the resource sector, however, represents a "doubling down" on an already volatile revenue stream. A resource-dependent jurisdiction already experiences ebbs and flows of corporate profits, employment, and tax receipts corresponding to the commodity cycle. Ross (1999) argues that some of the boom and bust cycle in resource-dependent developing countries of the 1970s and 1980s may have been due to the high degree of state ownership of mining assets, whereas under foreign control the impact on the host state would be buffered. A strategy of diversification would recommend investing additional capital into assets that are not correlated with the same commodity cycle.

4 Different types of socioeconomic benefits

Benefits from resource development are sought for governments, people, businesses, and communities. The major benefits discussed in this section are employment, linkages, capacity development, impact mitigation, macroeconomic stability, and shared infrastructure. The primary benefactor of employment benefits are the individuals who get employed. To maximize on

[17] Unless otherwise indicated, facts from this paragraph are from Wilcox (2015).
[18] World Bank World Development Indicators, accessed March 29, 2017.

employment benefits, however, people need to be trained and have the skills to partake in the opportunity. Similarly, local contractors need business development, and communities need to build their capacities to get the most out of resource development opportunities. From our reading, all of these benefits can be beneficial to the government through tax revenues, avoided costs, or more effective spending.

The benefits negotiated from resource development projects should reflect the impacted communities' needs and priorities. In the case of local governments, capacity is often low but demands on their limited resources is high, especially during times of resource boom (Cheshire et al. 2014). Many researchers, including Loutit et al. (2016) argue that benefits derived from resource development should be tailored to the local context, long-term goals, and the nature and scope of the project. Some items, including health, safety, and the environment, should be non-negotiable when it comes to resource development, while others, like rent and income, are worked out to capture benefits (Radon, 2007). Effective capitalization on resource development results in improved opportunities and income earning potential for community members, and in best case scenarios also contributes to the viability of any associated BA (Loutit et al. 2016). Sometimes, communities aim to get benefits from resource development companies that they were unable to receive from the government (Sosa and Keenan 2001).

4.1 Employment

The mining industry's major employment contribution comes from the jobs associated with mine contracts. As seen in Table 7, mining has high capital investment costs. According to the Canadian Mining Association (MAC) (2015), mining is a large financial contributor to government budgets and the Canadian economy. The industry accounted for 3.5% of Canada's GDP in 2014 (MAC 2015). In Canada, over 375,000 people were employed by the mining industry in 2014, which includes employees working in extraction, support activities for mining, and product manufacturing (MAC 2015; Table 8). Most employment opportunities from mining come from the jobs created in companies that are contracted by the mine (CCCR 2009; MAC 2015; Table 8). On top of simple job generation, employment related resource development benefits can include preferential hiring of local people and investments in training programs to augment local skills and employability (O'Faircheallaigh 2015).

Table 7: Canadian mining industry at a glance

	2005	2007	2009	2013	2014
Mining industry GDP ($ billion)	40.0	41.9	32.0	54	57
Percentage of total Canadian GDP (%)	3.8	3.4	2.7	3.4	3.5
Value of mineral production ($ billion)	27.4	40.6	32.2	43.6	44.7
Synthetic crude production value ($ billion)	9.2	18.0	n/a	34.4	35.5
Synthetic crude production (million cubic metres)	21.9	39.9	n/a	54.3	55.3
Number of mining establishments	859	766	961	1.262	1.209
Mineral extraction employment (thousand)	47	53	52	63.775	63.590
Total mining/mineral industry employment (thousand)	353	360	308	380	376.455
Mineral exploration/appraisal spending ($ billion)	1.3	2.8	1.9	2.3	1.9
Mining industry capital expenditures ($ billion)	7.4	10.1	9.8	18.3	15.07
Oil sands capital expenditures ($ billion)	9.8	16.8	10.6	32.6	25.1
Stock of foreign direct investment ($ billion)	21.2	61.6	59.8	66.4	n/a
Stock of Canadian direct investment abroad ($ billion)	56.4	57.3	64.5	81.4	n/a

Source: MAC (2015), p. 110

Table 8: Employment in the Canadian mining and mineral manufacturing industries, 2007-2014

(Number of Employees)

Year	Mining and Quarrying NAICS 212	Support Activities for Mining NAICS 21311B	Non-metallic Mineral Product Manufacturing NAICS 327	Primary Metal Manufacturing NAICS 331	Fabricated Metal Product Manufacturing NAICS 332	Total Mining, Support Activities, and Mineral Processing
2007	51,780	18,785	57,725	81,715	192,005	402,010
2008	56,060	21,980	54,780	82,315	181,910	397,045
2009	48,335	17,880	52,215	64,325	163,830	346,585
2010	52,025	22,005	54,475	69,260	162,355	360,120
2011	55,245	29,565	53,615	77,460	165,940	381,825
2012	56,630	30,070	53,745	75,110	169,955	385,510
2013	63,140	29,860	52,385	73,435	165,315	384,135
2014	63,590	27,700	53,110	69,625	162,430	376,455

Source: MAC (2015), p. 52

Skills training and cross-cultural training are key components of employment in resource development. It is suggested by researchers that clear and enforceable standards for employment and retention are a good way to secure jobs (Loutit et al. 2016). Training, education, and skill development programs should be sought in addition to employment (Loutit et al. 2016; CCCR 2009). It is recommended that training is focused around transferable skills (Dreyer 2004). In situations where Aboriginal and non-Aboriginal people are working together, many experts suggest that all employees go through cross-cultural training (Dreyer 2004; Gogal et al. 2006; Fidler and Hitch 2007; Siebenmorgan and Bradshaw 2011). It can also be beneficial to have a point person who oversees the training, education, and participation in the workforce of historically marginalized groups, such as Aboriginal people (Dreyer 2004). In the NWT, the Mine Training Society (MTS) helps Aboriginal individuals get trained and find employment in the mining industry (NRCan 2014b). Important components of the program are that training occurs both in communities and at the mine site, that there are mentoring and job coaching programs, and that students can access financial support when they are training. In the first decade of the program's existence, it trained more than 1900 people and placed 830 in jobs (NRCan 2014b). This program is considered a successful example of collaboration between various levels of government, Aboriginal groups, educational institutions and businesses to create and help Canadians take advantage of job opportunities in the resource development sector (NRCan 2014b).

The Diavik Diamond Mine Agreement is, according to some researchers, a leading example for procuring employment as a benefit – at least on paper. Authors Loutit et al. (2016) name the Diavik Diamond Mine Socioeconomic Agreement as a leading BA for providing community members with employment and training. As a result of these provisions, there is a high level of community acceptance and involvement in the project (Loutit et al. 2016). One of the agreement's features is a prescribed work force quota and active promotion of careers in diamonds for youth of the North. However, the company is still ultimately in charge of hiring, and there are no penalties to not meeting employment goals (Loutit et al. 2016). As of the CCCR's 2009 report, quotas had not been achieved. Highlights of the agreement, according to Loutit et al. (2016), are the job accessibility for Aboriginal peoples, training programs aimed at equipping the Aboriginal community with skills that can help them get into technical, technological, supervisory, and

managerial roles, and rotation work schedule that aims to be compatible with an Aboriginal lifestyle. Furthermore, the mine funds programs that help community members achieved successful employment by overcoming barriers (Loutit et al. 2016).

4.2 Contracting opportunities for local or national firms

Natural resource development creates a value chain. When a big industrial project, such as a mine, is developed, it creates many potential economic opportunities. According to Minerals, Mines, and Sustainable Development (MMSD) (2002), many companies have policies to preferentially contract local businesses. Upstream, downstream, and sidestream economic opportunities for businesses are known as linkages. Many governments have bolstered communities' opportunity for linkages through their legislation and policies (MMSD 2002). The broad goal of creating linkages is to increase the local economic activity and related job opportunities associated with the resource development project. According to MAC (2015), more than 80% of mining industry job opportunities are not actually in mining or quarrying (Table 8, above), so local linkages are important for capturing the economic, business and employment benefits of resource projects. Furthermore, it is commonly stated in the encouraging businesses to tender to local or Aboriginal businesses can foster linkages (Fidler & Hitch 2007; Siebenmorgan & Bradshaw 2011). Finally, some authors, including researchers Loutit et al. (2016) argue that joint ventures are the most effective way to both support local businesses and utilize their goods and services effectively for the project.

Norway's policy-based approach to generating linkages has been more successful than Australia's market-based framework, according to Hunter (2014). In the 1970s, the Norwegian government started requiring that oil and gas operations in Norway purchase goods and services, including production costs, from Norwegian businesses (Hunter 2014). According to Hunter (2014), Norway was successful at using policy tools to create local content provisions and avoid the resource curse. Cross sectoral linkages come from the idea that the value of resource extraction to government is both the value of the resource as well as the production cost spending to get that resource (Hunter 2014). By mandating local procurement of the goods and services required for resource extraction, Norway created a system that incentivizes development of the industries that support extraction of oil and gas (Hunter 2014). Importantly, according to Hunter (2014), Norway also has an economic diversification policy that grew the domestic industrial base and diversified the economy so it was not reliant on the oil and gas industry. Norway used a legislative and policy framework diversity the economy, largely based on what later became known as the "Ten Oil Commandments," endorsed in Norwegian parliament in 1971 (Table 9). Contrastingly, Australia's market based approach to generating linkages has not generated as many local business and employment opportunities (Hunter 2014).

Table 9: The ten oil commandments

1.	**That national supervision and control must be ensured for all operations in the Norwegian Continental Shelf;**
2.	**That petroleum discoveries are exploited in a way that makes Norway as independent as possible of others for its supplies of crude oil;**
3.	**That new industry is developed on the basis of petroleum;**
4.	**That the development of an oil industry must take necessary account of existing industrial activities and the protection of nature and the environment;**

5. **That flaring of exploitable gas on the Norwegian Continental Shelf must not be accepted, except during brief periods of testing;**
6. **That petroleum from the Norwegian Continental Shelf must as a main rule be landed in Norway, except in those cases where socio-political considerations dictate a different solution;**
7. **That the State becomes involved at all appropriate levels, and contributes to a coordination of Norwegian interests in Norway's petroleum industry as well as the creation of an integrated Norwegian oil community, which sets its sights both nationally and internationally;**
8. **That a State oil company be established which can look after the government's commercial interests and pursue appropriate collaboration with domestic and foreign oil interests;**
9. **That a pattern of activities is selected north of the 62nd parallel which reflects the special socio-political conditions prevailing in that part of the country; and**
10. **That large Norwegian petroleum discoveries could present new tasks for Norway's foreign policy.**

Source: Hunter (2014, p. 118)

Contracting and business opportunities can also be generated through BAs. Benefits can include participation of local business opportunities for contract and business development assistance (O'Faircheallaigh, 2015; RESOLVE 2015; Dupuy 2014). Loutit et al. (2016) highlight the Argyle Diamond Mine Participation Agreement as a leading example of business development benefits through a BA. This agreement aims to help develop local businesses owned by Traditional owners, and does so by having an Argyle employee available for three years to help the business develop (Loutit et el 2016).

There are international frameworks aimed at generating linkages (IFC 2016).[19] Investing in local businesses helps them grow and be better able to take advantage of resource development projects. The International Finance Corporation has an oil, gas, and mining linkages program aimed at helping medium sized enterprises adhere to oil, gas, and mining sector standards. IFC maintains that sourcing local businesses for contracts is mutually beneficial: the business has contracting opportunities and the chance to adjust their practices to better adhere to the high standards of the resource extraction industry, and the oil, gas, or mining firm is able to adhere to any business contracting requirements, thereby receiving a social license to operate in the area. Furthermore, the initiative benefits the community by supporting local businesses, thereby generating local income.

4.3 Capacity development

Capacity is key for local governments and communities to capitalize on opportunities from resource development. Former international oil company executive Donal O'Neill states that, "too little time is spent on the human aspects and consequences of oil development" (Radon, 2007). A community's capacity influences their ability to seek out and capitalize on current and future opportunities (RESOLVE 2015). In the absence of strong local governance, weak organization can negatively affect the local community (Cheshire et al. 2014). Dealing with projects is very complex, so reports contend that communities be supported with capacity building initiatives, if need be (RESOLVE 2015). Often, rural and remote communities and governments have smaller capacity and fewer resources, so are less prepared for the magnitude and complexity of the work required to maximize benefits from a local development project (RESOLVE 2015; Cheshire et al. 2014). Especially during periods of resource development, the local level of government is often

[19] All facts in this paragraph are from IFC (2016).

expected to govern a high number and variety of actors and represent many local interests despite the resource and capacity limitations they face (Cheshire et al. 2014). Currently, it is often the case that mining companies create their own plans without consulting other companies or government (Cheshire et al. 2014). A potential solution is to develop a relationship between the local government and the resource company to promote development of local government capacity, including initiatives that will last after mining has ceased.

The state, province, or territory's regulatory framework and company's actions both impact local government. Researchers Cheshire et al. (2014) argue that the regulatory framework within which a local government works affects its ability to influence process and get benefits from mining near their communities (Cheshire et al. 2014). When companies don't have authority to make demands from companies, the burdens of mining can impact the community while benefits remain elusive (Cheshire et al. 2014). If there is little or no framework for governing mining or managing its impacts, the ability of local governments to plan or provide services is limited. Cheshire et al. (2014) suggest intergovernmental collaboration between levels of government as a way to bolster local governments' authority and reduce fragmentation. According to Cheshire et al. (2014), local governments are a logical choice to coordinate large resource projects, but require more institutional support to be effective, especially with the added challenges of a resource boom (Cheshire et al. 2014). When local governments are well supported, researchers argue that they are able to support local interests and generate better local policy (Cheshire et al. 2014).

Community planning and experience are vital for maximizing benefits. Capacity development initiatives, such as management assistance and governance support, are common benefits articulated in BA agreements (RESOLVE 2015). In order to capitalize on development, including governance support benefits, the Canadian Centre for Community Renewal (CCCR) (2009) suggests four aspects that communities should develop. First, they need a vision of including the life and quality of life the people want. Second, they should have a plan detailed what benefits the community wants to receive. Third, the community needs a plan for how to use incoming revenue. The CCCR recommends this plan details how to turn this revenue into long term assets. Finally, it is recommended that the community decide on which partners with whom they want to collaborate. Overall, resource development projects need to fit into the community's plan and vision for their future. However, the CCCR argue that experience is key for those impacted by resource development to negotiate the best deals. In the agreements surrounding the Ekati Diamond Mine, the Lutsel K'e Dene Nation had little time, expertise, or knowledge about mining or how mining would affect them. In negotiations surrounding the Diavik Diamond Mine and Snap Lake Mine, the capacity and experiences gleaned through previous agreements, including knowledge of technical terms and how their community is affected by mining projects, gave the Lutsel K'e Dene a better idea of how to negotiate and what to negotiate for. The CCCR argue that agreements regarding the Diavik mine included better business opportunities, jobs, and contracts, as well as the addition of training workshops and more time for negotiations: having more capacity gave them a better deal.

4.4 Impact mitigation

Impact mitigation and monitoring is not so much a benefit as an avoidance of costs. Major resource development projects, such as mines or oil and gas wells, inevitably have impacts on the environment and nearby community. Many of these costs, however, can be mitigated or avoided.

BAs, for example, often include social, cultural, and environmental provisions to avoid unacceptable costs in these areas (RESOLVE 2015; Sosa and Keenan 2001).

4.4.1 Environmental impact mitigation

Resource development often causes environmental impacts, so asking for mitigative measures and monitoring is a common practice. The CCCR (2009) argues that compensation is necessary for using the land and environmental resources. Ideally, benefits should be accessible for the future generations, as these generations will experience the environmental impact of nearby closed and abandoned mines (O'Faircheallaigh, 2013). There should be an environmental management plan, and many researchers suggest that traditional knowledge play a role in the creation and monitoring of that plan (O'Reilly and Eacott 1999).

Impacts should be monitored, sometimes with community participation, to ensure costs remain acceptable. According to recent papers, community-based monitoring of company-community agreements is rare (Wright, 2013), except in some cases, such as the Diavik Diamond Mine (Loutit et al. 2016). Some researchers regard the Diavik Diamond Mine's framework as a leading example of an environmental impact monitoring system (Loutit et al. 2016). In this agreement, a Group Advisory Board (the "Board") exists to assist, monitor, review, coordinate, and advise all parties about agreement stipulations and benefits. Furthermore, the Board ensures that all the parties are fulfilling their share of the agreement. The Board includes representatives from all parties to the agreement and one of its duties is to monitor the mine's progress, including social and economic impacts (Loutit et al. 2016).

The closure and remediation of a mine is an important component of environmental impact mitigation. According to researchers, there should be a plan to remediate the mine (Fidler and Hitch 2007; Siebenmorgan and Bradshaw 2011). Natural Resources Canada (2014b) suggests that land reclamation following mine closure should be a collaborative land planning process that includes government, industry, communities, Aboriginal groups, and the public. The Gregg River and Luscar mines in Alberta are examples of a successful remediation process spearheaded by both the government of Alberta and industry (NRCan 2014b). In this case, Alberta Environment and Sustainable Resource Development developed a land management plan. They involved communities, interest groups, and the public in most stages of the planning and implementation process. The overall project happened in seven stages: initiation, data collection, scenario development, drafting, approval, implementation, monitoring, and evaluation. As a result, 100% of the Gregg River and 50% of the Luscar mine had been reclaimed as of NRCan's 2014 report. Albertan species, including the grizzly bear, bighorn sheep, elk, and Athabasca trout, have returned to the area (NRCan 2014b)

BAs can be important tools when it comes to environmental impact mitigation. According to O'Faircheallaigh (2015), agreements, such as BAs, underpin the option to seek legal action regarding environmental enforcement. In fact, many BAs in Canada and Australia require companies to have insurance to do environmental remediation work (O'Faircheallaigh 2015). Furthermore, through BAs or EIAs, communities can get involved in the environmental planning, permitting, and monitoring of projects (O'Faircheallaigh, 2015; Kirchoff et al. 2013; Gibson 2012). The World Bank (2010) observes that effective monitoring can increase transparency and accountability when appropriate metrics are established.

4.4.2 Social and cultural heritage impact management

Social issues can be created or exacerbated by mining (Prno et al. 2010). Some researchers maintain that Aboriginal communities, especially in Canada's north, have borne the brunt of the social impacts of mining (e.g., Rodon and Levesque 2015). As an example of the impacts of mining on the social and cultural structure of Aboriginal society, Rodon and Levesque (2015) studied Inuit's perceptions of the socioeconomic impact of mining over time. They found that mine development often has negative impacts on family life, due to separation when someone is away to work in the mine, and increased substance abuse. Furthermore, environmental impacts on the land and water near a mine can sometimes impact a community's food security, as contamination and noise can disrupt the traditional land based economy of hunting, fishing, and trapping (Rodon and Levesque 2015).

Cultural heritage has been impacted by mineral development (O'Faircheallaigh 2008). According to Rodon and Levesque (2015), Inuit often fear that language or traditional knowledge about how to use the land will be lost as a result of mine development. O'Faircheallaigh (2008) points out that cultural heritage sites can be permanently damaged or destroyed by resource development and its externalities. Traditional hunting, fishing, and trapping can be threatened by concerns of contamination from mine pollution (Rodon and Lévesque 2015). Furthermore, a mine's work schedule can obstruct an employee's participation in the traditional economy (Rodon and Levesque 2015). Researchers Rodon and Levesque (2015) point out, however, that extra income from employment in mining can be used to buy better equipment for traditional activities and that newly built infrastructure may provide easier access to hunting grounds through new roads.

There have been attempts to manage the social and cultural heritage impacts of mining. According to researcher O'Faircheallaigh (2008) legislation has been ineffective at protecting Aboriginal heritage, at least in Australia, because the laws have been too weak to enforce protection. It is considered best practice to include mechanisms to protect Indigenous cultural heritage in BAs (Indigenous Support Services and ACIL Consulting 2001), and many best practice toolkits recommend that corporations conduct a baseline study of the cultural heritage of the area (ICMM 2015). In addition to legislation and BAs, court decisions and protests have also been used to protect cultural heritage (O'Faircheallaigh 2008).

4.4.3 Revenue for subnational governments and local investment

Governments receive large amount of revenue from taxes associated with mining. As mentioned above, in section 3.1.2., taxation is a tool that governments employ to benefit from resource development. In Canada, subnational governments are supported by revenue from resource development. Between 2003 and 2012, mining companies have paid over $71 billion in taxes, approximately 58% of which went to provincial and territorial governments (MAC 2015; Table 10). From our reading, financial benefits to governments are often larger than those to communities.

Table 10: Direct revenues to the Canadian government from the mining sector

Revenues ($ millions)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Royalties/Mining Taxes	586	1,336	1,576	2,640	3,967	5,279	2,187	3,176	3,880	3,060	27,687
Corporate Income Tax	1,773	1,943	2,393	4,005	4,213	3,204	1,083	2,408	2,437	1,244	24,702
Personal Income Tax	1,732	1,732	1,731	1,784	1,970	2,047	1,687	1,861	1,987	2,277	18,808
TOTAL	**4,090**	**5,011**	**5,700**	**8,429**	**10,150**	**10,529**	**4,957**	**7,445**	**8,304**	**6,581**	**71,197**
-of which federal	2,609	2,760	2,799	3,707	4,005	3,547	1,905	2,963	3,045	2,471	29,811
-of which provincial	1,481	2,251	2,901	4,722	6,145	6,982	3,052	4,482	5,259	4,110	41,385
Provincial share (%)	36.2	44.9	50.9	56.0	60.5	66.3	61.6	60.2	63.3	62.5	58.1

Source: MAC (2015), p. 21

Resource development can provide a revenue stream for the local community that is scaled to the project's operation size or profitability. According to recent papers, this practice is common in BAs negotiated in the extractive industry (O'Faircheallaigh 2015; O'Faircheallaigh and Gibson 2012), although Dupuy (2014) notes that securing revenue streams for local governments and communities can be mandated and Heisler and Markey (2014) state that EIA processes can be used to secure financial commitments from projects. It is important, however, that the community has a plan to manage that profit to achieve short-term and long-term goals and turn the revenue into assets and development for the community (CCCR 2009). In communities, revenue is often secured through a royalty system or obtaining an equity share in the BA (O'Faircheallaigh and Gibson 2012), or through revenue sharing agreements with government (McMillan LLP 2007).

Revenue instruments exist in many community benefit agreements, and there is a dilemma for how to structure those instruments—which usually do not benefit from any regulatory direction. Important factors to consider when designing taxation regimes are the degree of certainty in generating tax revenue, the economic certainty of the commodity and project, and the risk tolerance of the jurisdiction (O'Faircheallaigh and Gibson 2012). When calculating the project risk, the following should be considered: the project developer, including the company's experience, diversity of assets, and financial resources; the nature of project, including the terrain, the physical and political environment, and local natural disaster risk; and the commodity, including price fluctuation of that mineral and any political opposition (O'Faircheallaigh and Gibson 2012). O'Faircheallaigh and Gibson (2012) argue that jurisdictions should understand how risky the project may be and have a good understanding of their willingness and ability to tolerate risk. The more reliable and diverse a community's revenue stream, the better their capacity to bear risk (O'Faircheallaigh and Gibson 2012). The needs and priorities of the area should be prioritized, so planning as well as population and economic forecasting should inform discussions about how much risk is tolerable. An analysis of the benefits and drawbacks of various taxation regimes designed in communities as part of the benefits from community development agreements was listed above, in Table 5. Although different in size and scope from provincial or federal taxation regimes, the way taxation is designed in BA cases may inform this report, as allowing local taxation to occur on a project to project basis is a tool that can help communities accrue additional benefits from resource development (O'Faircheallaigh and Gibson 2012). In many cases, the tax revenue from BAs can be more significant than the provincial revenue-sharing agreement (O'Faircheallaigh and Gibson 2012).

The "value of production" taxation model works well, so long as the company does not manipulate prices. In the Pilbara region of Australia, the mining company Rio Tinto entered into BAs with local communities regarding an iron ore mine they were developing in the area. Unexpectedly, the commodity price of iron ore quadrupled. Communities that had entered into an ad valorem agreement were able to capture the increased profitability, while those who had entered taxation agreements based on 'production volume' benefited only from the increased production. Other communities in Australia, however, have boycotted the 'value of production' taxation regime because of company behavior: companies were selling minerals at low prices to avoid tax (O'Faircheallaigh and Gibson 2012). The issue of so-called transfer pricing, in which the resource company minimizes apparent revenue and maximizes apparent costs in order to reduce their taxation, dogs even national governments with established revenue authorities. In our view, communities should not seek a revenue stream in their BAs which is not already being measured by the national or subnational authorities. Otherwise, they may be subject to disadvantageous transfer pricing.

4.5 Macroeconomic stability

Unless it is well managed, natural resource extraction can exacerbate the business cycle and create local booms and busts. At the macro level, high resource prices are typically accompanied by higher expenditures on exploration, faster capital investment, and higher tax revenues. If the government does not conduct the correct counter-cyclical fiscal and monetary policy, government spending and inflation will increase during high price periods, exacerbating the boom (and precipitating a more rapid fall when prices decline). At the local level, projects bring a surge in employment and prices and without local savings and planning, regional business cycles can be even more dramatic, and the problem of exhaustibility is more pronounced at the local level.

4.5.1 Natural resource funds (NRFs)

Natural Resource Funds (NRFs) are a tool for stabilizing the economy and achieving long-term macroeconomic objectives (International Working Group on Sovereign Wealth Funds (IWG) 2008). NRFs utilize investment strategies, such as investing in foreign financial assets, and hold, manage, or administer these assets to achieve the fund's objectives (IWG 2008). These funds are created through balance of payments surpluses, foreign currency operations, privatization proceeds, fiscal surpluses, and receipts from commodity exports (IWG 2008). According to IWG (2008), there are three key elements that define NRFs. First, they are owned by the general government. Second, the investment strategies include foreign financial assets, so funds that include only domestic assets are not SWFs. Third, the funds have usually long-term financial objectives. These types of funds are beneficial to both the exporting and receiving countries of their investments, and are purported to support growth, prosperity and economic development, as well as improve public finances management and have increased macroeconomic stability over the long term, and support global markets (IWG 2008). NRFs are increasingly influencing corporate governance practices because of their growing level of asset investment (IWG 2008).

The mining and oil and gas industries have a boom and bust cycle, so policy to manage this fluctuation is important for sustainable government budgets (Freebairn 2012). Historically, there have been five major resource booms, including the one the global economy is currently experiencing (Freebairn 2012). However, these periods are often short lived because resources are depleted, the global economy downturns, or supply overshoots demand for minerals (Freebairn

2012). Thus, it is important to have a system to manage government budgets in the face of mineral economy changes. According to Freebairn (2012), employment of a NRF manages the inflationary effects of mineral sector growth and corresponding income. NRFs are one way to managed the cyclical nature of the non-renewable resource sectors and its corresponding effect on government budgets.

As a general principle, revenue from non-renewable resource development is not income, so should be set aside for the future. From an economic perspective, income from non-renewable resource development is it is the transformation of one type of capital to another, so spending the money generated though non-renewable resource development on present day services and costs is a withdraw from principal capital (Fraser Institute 2013). Natural resource funds (NRFs), a special kind of sovereign wealth fund, were developed to avoid this drawdown (Fraser Institute 2013). NRFs are special purpose investment fund owned by the government and whose principal source of funding is from oil, gas, or mineral sales, and it invests in at least some foreign assets (NRGI 2014b). In an ideal situation, the inflation adjusted value of all non-renewable natural resource extraction income would be saved and only the earnings of these savings, amassed through investment of the funds in lucrative projects, would be spent at present (Fraser Institute 2013). Like a pension fund, a NRF is an extra-budgetary financing mechanism that is used to finance future projects, protect crucial services from budget cuts, and saves revenues for future generations (Fraser Institute 2013; NRGI 2014b). Additionally, NRFs can address macroeconomic challenges like Dutch Disease and keep government spending more consistent throughout time (NRGI 2014b).

It is recommended that NRF money is used to finance public goods. Any investment decisions regarding NRFs should be strategic and long-term in outlook and serve the public interest (Sachs 2007; NRGI 2014b). Commonly, it is recommended to use the money to invest in goods that help the public, such as environmental protection, education, or health care, or are public investments, such as roads, that aid private enterprises (Sachs 2007).

NRFs are unlikely to help society without strict controls. There is not a strong economic logic for the use of NRFs, or inherent better management of natural resources because of their existence (Humphreys and Sandbu 2007). In fact, it is possible to use NRFs to avoid parliamentary process or keep government spending secret. The benefit of the fund comes from its ability to incentivize policy makers, but only if it improves the incentives for more beneficial spending (Humphreys and Sandbu 2007) and a commitment to a spending path that, in its absence, would be hard for politicians to agree to. However, most funds currently have little transparency and few audits, resulting in a high risk of corruption and patronage (NRGI 2014b). Despite the drawbacks, NRFs are increasingly popular: 34 of 58 funds were established since 2000 and a dozen more countries were recently thinking about or planning new funds. As of July 2014, NRFs held about $4 trillion in assets (NRGI 2014b). Furthermore, the trend is towards more regulations over what the funds can be used for. Without a framework for NRF use, there is incentive for the current government to spend all incoming money from resources before the next election period (Humphreys and Sandbu 2007).

Good NRF governance means a lot of rules, diffused responsibility, and frequent audits. Governance of NRFs is crucial to their success (Humphreys and Sandbu, 2007). The Natural

Resource Governance Institute (NRGI; 2014b) summarizes six principles for NRFs that promote good fund governance. First, set clear objectives for fund. Setting single or multiple objectives for the fund makes it easier to create operational rules, such as what investments are too risky for NRF money and where investment can occur (NRGI, 2014b). Second, establish rules for withdrawing and depositing from the fund that align with the fund's objectives: fiscal rules that define how deposits and withdrawals are made help stabilize government spending and generating savings. Moreover, as demonstrated by the case of Alberta's Heritage Fund, depositing rules are essential for growing the fund. Third, create investment rules. It is recommended, for example, to prohibit the use of fund assets as collateral, to make investments through government budgets (as opposed to directly from the NRF), to avoid a destabilizing amount of public spending, and to earmark outgoing NRF funds for specific development goals (NRGI, 2014b). Fourth, have a clear division of responsibilities for authority over the fund and enforce ethical and conflict of interest standards. Roles and responsibilities of the fund's governing bodies should be clearly outlined in laws, and it should be clear that ethical and conflict of interest standards must be upheld or there will be major consequences (NRGI, 2014b). Fifth, regularly audit and disclose key information. Sixth, establish bodies to oversee and monitor fund behaviours and rules (NRGI, 2014b). Regular and extensive audits run by independent bodies ensure rule adherence, give governments the opportunity to improve efficiency, and allow overseers to effectively monitor fund operations and ensure they are being managed in the public interest (NRGI, 2014b). Finally, the Santiago Principles are a recommended guideline for governing funds such as NRFs (IWG, 2008; NRGI 2014b). Outlining all rules in legislation keeps current and future governments committed to a long-term financial vision (NRGI, 2014b).

Alberta's Heritage Fund failed to succeed because there was not a formal depositing rule. Despite high production and historically high oil prices between 1987-2010, only two deposits were made into Alberta's Heritage Fund (AHF) over this period, as there was no formal requirement to deposit non-renewable resource revenues into the fund (Fraser Institute, 2013; NRGI, 2014b). Financial rules, fiscal objectives, and a long-term savings plan were set up in 2013 (NRGI, 2014b). Positive aspects of the fund were the comprehensive investment rules that limit the risks fund managers can take, and a requirement that the Albertan Government has an annual review of fund performance and has annual public meetings on fund activity, which ensures compliance with regulations (NRGI, 2014b). As of the Fraser Institute's 2013 report on the AHF, the statutes governing AHF have only broad guidelines for investing, and the net income of the fund was often transferred to the General Revenue Fund. Overall, the fund has not kept pace with inflation (Fraser Institute, 2013). The primary recommended change is to have an explicit percentage of non-renewable resource income go into the fund (Fraser Institute, 2013).

Alaska's Permanent Fund has been successful because of strict depositing and withdrawal rules. Alaska mandates that 25% of mining related income that enter the Alaska Permanent Fund (APF), has an enshrined formula for how much money can be taken out, and constitutionally decrees that outflows must go to citizens in the form of payments or dividends (Humphreys and Sandbu, 2007; Fraser Institute, 2013). APF invests in projects that are not primarily focused on economic or social benefits. Rather, the fund invests in project that will make money with an acceptable level of risk (Fraser Institute, 2013). Spending of realized earnings are allowed, but unrealized earnings, such as growth due to increased market value of assets, cannot be spent (Fraser Institute, 2013). Overall, APF earnings are almost entirely used to directly pay Alaskans

and protect APF from inflation, and not to finance government expenditures (Sachs, 2007; Fraser Institute, 2013). Key differences between APF and AHF are that APF invests in stocks while AHF often invests in bonds, a separate public corporation acts as a trustee for the APF while the government departments make decisions over the AHF, and there is a mandated depositing rule in Alaska (Humphreys and Sandbu, 2007; Fraser Institute, 2013).

Norway's NRF has had rapid success because of its depositing framework and its "4% of earnings" spending rule. All proceeds from petroleum activities, including CO2 emissions, are theoretically deposited into Norges Bank Investment Management (Humphreys and Sandbu, 2007; Fraser Institute, 2013). Parliament has a spending rule that no more than 4% of funds per year should be used (Humphreys and Sandbu, 2007). Fund money can only be transferred into regular budget with a resolution from Norway's government, and the funds cannot be used to access credit or to invest in Norwegian assets, thereby incentivizing limited political interference with the fund (Fraser Institute, 2013). The fund is fully integrated with the government's budget, so that allocations to the fund are reflected as surplus. The rapid growth of this fund comes from the fact that all non-renewable resource revenues were deposited into it, at least in theory, and the spending rule (Fraser Institute, 2013).

BAs can be used to create NRFs at the local level. Income from revenue sharing, which can be secured through BA, can be used to create a community level equivalent to a NRF that extends the development benefits to future generations (O'Faircheallaigh, 2015). For example, traditional owners of the Weipa Bauxite Mine in Northern Queensland sighed a BA with Rio Tinto Aluminum in 2001 that necessitates investing 60% of the agreement's annual payments into a long-term investment trust. The trust's principal is preserved and any income is reinvested for a 20-year period. Once investments and their income are available, a portion of income equivalent to the BA annual payment is reinvested in the trust while any additional income becomes available for other expenses. After the 20-year period, the trust will have a significant capital base that will generate revenue for the community long after the mining has ceased (O'Faircheallaigh 2015).

4.5.2 Fiscal rules

Much of the benefits of NRFs can be achieved with existing government institutions alongside rules for spending that recognize the volatility of natural resource revenues. The Norway and Alaska NRFs have been successful, in part, because they have rules on how much the government can spend as a function of the amount, or earnings, of the fund. Another successful example that focuses not on the balance in the fund but instead on a country's fiscal situation can be found in Botswana (Budina et al. 2012). Botswana limits the ratio of expenditure to GDP to 40 percent. So, for example, if one year diamond revenues were equal to 50 percent of GDP, then the surplus would be deposited in the Bank of Botswana to be used for stabilization, and then, if there were enough funds in that subaccount, for savings. Within government expenditures, Botswana sets a floor for development-related spending, which includes health, education, and capital spending, at a minimum of 30 percent of expenditures. When Werker was part of a team advising the Government of Liberia on a potential resource revenue management strategy, they recommended a fiscal-rule approach given that the country had existing debt combined with high needs for development spending. The worry was that the economy did not have the "absorptive capacity" to effectively spend high amounts of resource revenue without leading to leakage and inflation, but

that setting aside money for the long future did not make sense in a country that had some of the lowest socioeconomic indicators on the planet.

4.6 Shared infrastructure

4.6.1 Infrastructure

Planning infrastructure so that it benefits the community and the project proponent creates opportunities for synergy. Consider, for example, a mine that requires a rail line, which if open to other users could increase profitability for farmers. Infrastructure and other social investment projects are common items in agreements (RESOLVE 2015). For example, Sierra Leone's *MMA* requires support for public goods, including infrastructure development in the community (Dupuy 2014). When users are willing to pay for infrastructure but are excluded from doing so, the outcome is economically inefficient (CCSI 2014). Despite this, resource companies have historically provided their own infrastructure, with no connection to infrastructure plans in the area (CCSI 2014). According to the Columbia Center on Sustainability Investments (CCSI) (2014), however, shared infrastructure can benefit both the project developer and the local community. Leading practice is to seek involvement of local community members in the design of infrastructure so that infrastructure meets the needs of the community as well as the resource developer (Loutit et al. 2016). When infrastructure is shared, it lowers building costs for the project developer, can cut shipping costs by creating opportunities such as back haulage, and increase trade opportunities (CCSI 2014). From the local or state perspective, sharing infrastructure promotes other development in the area, including promotion of accessible assets, diversifying the local economy by increasing the area's attractiveness to investors, and increasing trade opportunities (CCSI 2014). Many of these benefits also aid government by resulting in more tax (CCSI 2014).

Building infrastructure that can be shared helps the community benefit from resource development in the region. If a jurisdiction decides to engage in a shared infrastructure agreements, the CCSI (2014) recommends four steps. First, the jurisdiction must assess the situation. This includes how infrastructure aligns with the area's objectives and priorities, who the players are, what interests are involved, and whether this is appropriate timing. Second, the jurisdiction should do a cost-benefit analysis, if possible. Third, opportunities for synergies through shared infrastructure should be identified. Fourth, preconditions for shared use should be confirmed. This includes designing a system that is suitable to the jurisdiction's goals and context and ensuring that preconditions for shared use, such as legislation, are in place. CCSI recommends negotiating once these steps are completed.

Shared infrastructure can be used and managed in different ways. There are two broad types of shared infrastructure, according to CCSI (2014). The first is multi-user, where several mining companies in a region use the same piece of infrastructure. This creates an economy of scale that reduces operating costs. The second is multi-purpose, where infrastructure is accessible to non-mining users. This type lowers costs to other users. Loutit et al. (2016) describe the agreement between Newmont Ahafo Development Foundation and Newmont Ghana Gold Ltd (part of a series of BAs for Newmont's Ahafo mine in Ghana) as an example of a shared infrastructure framework. In this agreement, minor infrastructure projects are jointly owned between community and District Assembly, the second subnational level of government under regional government. The responsibility of maintenance and management goes to the District Assembly, who are able to liaise with local government if they need resources or personnel. The projects are designed and

developed the Ahafo Development Foundation, which is run by trustees from both the company and community (Loutit et al. 2016).

A key decision when developing a shared infrastructure framework, according to CCSI (2014), is who owns the infrastructure. One option is to separate ownership between project proponent and government, whereby a third party attempts to maximize profits from infrastructure through user maximization. Second, the newly built infrastructure can be integrated as part of the project development, where project proponent the owns the infrastructure. With this framework, however, it is harder to guarantee that sufficient capacity will be built into the project. Regardless, CCSI (2014) argues that shared infrastructure should have an option to be on a build-operate-transfer basis so that the infrastructure can be eventually transferred to the state.

Shared infrastructure always comes at a cost, but there is often a greater benefit. The ease of negotiating a shared infrastructure framework, and the type of shared infrastructure that is negotiated, depends on the cost and degree of strategy needed to design the required system (CCSI 2014). For example, internet and telephone provision does not require much strategy, so are a lot easier items for which to negotiate a shared infrastructure agreement than transportation infrastructure, such as railways or ports (CCSI 2014). There always is a price to shared infrastructure: often, some tax revenue must be foregone to secure this benefit. However, shared infrastructure is worth the foregone revenue if it achieves economies of scale and inexpensive extra capacity, and if there is a market for marginal low cost capacity (CCSI 2014). Overall, there must be a business case for shared infrastructure to work (CCSI, 2014). Researchers, including Sachs (2007), argue that private enterprises, a key component of development, rely on public goods such as roads. Thus, investing in shared infrastructure can be a way of investing in the public goods needed to support private enterprises.

5 Jurisdictional scan

This section will summarize the broad policy regimes for natural resource management in Canada and internationally, and how each jurisdiction approaches the distribution of socioeconomic benefits from resource exploration and development. First, we will summarize the broad policy regime in Canada to provide context to natural resource management in individual provincial jurisdictions. A short overview of industry initiatives will also be presented to understand how the resource industry has influenced policy across Canada. Second, most provinces and territories aside from the Northwest Territories (found in Section 2) will be overviewed, including each province's resource management approach for each of their major industries, their socioeconomic benefits distribution, and their First Nations community engagement. Finally, three countries with similarities to Canada will be described to demonstrate their different, yet informative, initiatives to allocate socioeconomic benefits to their citizens. Common characteristics among these countries are a sparsely distributed population, the high dependency of their economies on the natural resource sectors, and their high-quality institutions (Fischer 2007).

This jurisdictional scan provides a broad overview of Canada and other high-income countries and their benefit-sharing mechanisms due to the current limited amount of literature evaluating these mechanisms. It is important to note that most literature on benefit-sharing mechanisms has been focused on resource development in developing countries, while the

limited literature on high-income countries, such as Canada, Norway, and Australia, has revolved around specific groups, such as Indigenous Peoples (Söderholm and Svahn 2015). High-income countries must be considered in the context of their well-functioning institutions and developed financial sector. Moreover, few papers provide a general overview of one or more jurisdictions' approach to natural resource management, and their approach to benefit sharing from resource projects within their territory. For this jurisdictional scan, secondary literature, departments of natural resources websites, and the websites of industry associations were searched to gather information on Canadian and international jurisdictions' regimes for natural resource management and benefit sharing.

5.1 Canada

5.1.1 Federal government

While Canada may not have a standardized federal process for natural resource management, the federal government does have measures to ensure benefits from proposed projects return to the economy, and to aid provinces achieve the same goal in their jurisdictions. In Canada, not all land is managed by the Crown; lands were distributed to provinces by the Crown starting in 1870 (Ferguson 2015). The *Natural Resource Transfer Act (NRTA), 1930* allocated the jurisdiction of natural resources to the provinces, thereby giving provincial governments a say in natural resource management and benefit allocation (Ferguson 2015). No transfer was done to Aboriginal governments, however, so these governments rely on other measures, such as agreements and treaties, to gain from proposed projects (Ferguson 2015).

The Government of Canada imposes an income tax and a corporate income tax collected from provinces and territories on their natural resource extractions, according to the *Income Tax Act* (NRCan 2017). In Canada, federal income tax on net income is approximately 15%, and applies to all Canadian resident companies on their income earned worldwide (NRCan, 2017; PWC, 2016). In addition to gathering the federal income tax, the federal government collects corporate income taxes levied by eight provinces and three territories - excluding Alberta and Quebec, which administer their own corporate income tax systems. For instance, within the mining sector, the federal corporate income tax is 15% of taxable income.

The federal government allocates funds and creates programs to encourage further Aboriginal consultation, engagement, and returning benefits from natural resource projects. As mentioned above in Section 3.1.3, one such mechanism for allocating benefits from resource projects is the EIA process, performed both at the federal level and provincial depending on the jurisdiction's authority over a proposed project (Kirchoff et al. 2013). Details about best practices for EIAs, its advantages, public participate, and the design and structure of EIA for acquiring benefits through this tool, are all explored in Section 3.1.3. This jurisdictional scan will provide an overview of the EIA process performed federally and in a few other provinces (i.e. British Columbia and Alberta). Large-scale projects such as oil and pipelines will often trigger both a federal and provincial EIA process (Deyholos and Cuschieri 2013). The jurisdictions can perform their independent assessment, or can enter into a substitution or cooperation agreement where one of the jurisdiction, often the federal government, takes the lead on the EIA. When there is overlap in federal jurisdiction, a joint review panel (JRP) is also an option. For instance, energy projects can have a JRP composed of the National Energy Board (NEB) and the Canadian Environmental Assessment Agency (CEAA). Even if the federal government or JRP are the leads on an EIA,

provincial licenses and approvals are still required (Deyholos and Cuschieri 2013). For example, a mine located in BC and assessed federally by CEAA will still need an environmental certificate from the British Columbia government under the BC Environmental Assessment Act, and require a consultation and accommodation process between the provincial government and Aboriginal communities.

The federal government has taken steps to support Aboriginal employment and training in the natural resource sector and to return benefits to affected Aboriginal communities. The Royal Proclamation of 1763 was the first legislative acknowledgement of what is now called Aboriginal title in Canada: Aboriginal peoples hold title through the use and occupancy of the land. The *Constitution Act, 1867* put "Indians and the lands reserved for the Indians" under the jurisdiction of the Federal Government. Subsequently, the *Constitution Act, 1982* recognized and affirmed Aboriginal and treaty rights and constitutionally enshrined the duty to consult. Section 35(1) of the *Act* affirms responsibility of governments in Canada to Aboriginal peoples: the Crown has a duty to consult and accommodate Aboriginal communities regarding development that has an adverse effect on established or asserted treaty or Aboriginal rights under the *Canadian Charter of Rights and Freedoms* (White & Wright 2012). More recently, the government of Canada has acknowledged the necessity of consulting, engaging, and sharing benefits with Aboriginal communities through Canada's Economic Action Plan (EAP) *Responsible Resource Development* (Government of Canada 2013b; Ferguson 2015). In 2013, the EAP allocated over $600 million in the budget to encourage Aboriginal education and training for future jobs in the natural resource sector (Government of Canada 2013c). However, a weakness of this policy is that it only provides funding and does not specify the amount of education and training that should be provided.

5.1.2 Industry

Industry initiatives have taken steps to build relationships with the governments and communities affected by their projects. While the provinces take initiatives to gain socioeconomic benefits for their residents and aid Aboriginal governments to do the same for their communities, individual industries have also taken steps to promote their relationship with governments and the communities affected by their projects. The initiatives differ by industry, with some industries promoting established instruments to distribute socioeconomic benefits while others only provide guidelines for consultation and public engagement for proponents with no explicit endorsement of benefit instruments.

5.1.2.1 Mining

The mining sector has worked with provinces and Aboriginal communities to share mining operation benefits from mining operations, both voluntarily and to comply with jurisdictional requirements. In the mining industry, the *Minerals and Metals Policy of the Government of Canada*: *Partnerships for Sustainable Development* (1996) set standards for environmental, economic and social needs and benefits (Ferguson 2015). Even so, most government revenues from mining operations (above and beyond income/profit taxes) are gathered through taxes on mining profits and royalties charged by the provinces. Yet, BAs have also been common in this sector since the 1980s, with approximately 150 signed to date (Söderholm and Svahn 2015). To gain a social license to operate, new mining models implement benefit-sharing mechanisms that can sometimes lead to further development in the region. Some mechanisms have been implemented voluntarily by the company, while others have been initiated by governments

through legislation to ensure communities receive mining benefits. The mining industry has made progress in developing its Corporate Social Responsibility (CSR) practices, and other industry-wide sustainability initiatives, such as the Global Mining Initiative (Söderholm and Svahn 2015). Interestingly, in the international minerals sector, there is a range of international standards for company-community relationship (for consultation and interaction with communities), such as the Equator Principles and International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (Bruckner 2015). Meanwhile in Canada, the Mining Association of Canada (MAC) has also made some progress in its benefit-sharing (MAC 2015) in part through its TSM standards.

MAC supports resource revenue sharing between the government and Aboriginal communities. In November 2015, MAC's Board of Directors released a statement supporting an approach to government resource revenue sharing (GRRS) between the Crown and Aboriginal communities that are affected by a mining project (MAC 2015). (This might not be surprising, given the fact that it has no effect on a company's tax bill but satisfies local interest.) GRRS would allow Aboriginal communities to participate in mineral exploration and the mining industry, and bring their communities additional benefits in the form of resource royalties from the projects - which have been taken from the revenue amount that governments have collected directly from companies through royalties, taxes and fees (Prospectors and Developers Association of Canada (PDAC) 2014). MAC also advocates for government programs that support Aboriginal skills training initiatives, employment strategies, and other programs. As of 2014, six provinces and territories announced formal, documented mineral-specific GRRS arrangements with Aboriginal communities in Canada: Yukon, NWT, Nunavut, British Columbia, Quebec, and Newfoundland and Labrador (PDAC 2014; Table 11)

Table 11: Government resource revenue sharing (GRRS) applied in Canadian jurisdictions

Jurisdiction	How the GRRS is applied
NWT	Three signed land claims and interim resource development agreement
Yukon	Signed land claims
Nunavut	Under the Nunavut Land Claims Agreement (NLCA) and through the Resource Revenue Policy under the Nunavut Tunngavik Incorporated (NTI)
BC	A non-treaty GRRS agreement mechanism exists for mining, as well as the forestry, clean energy and oil and gas sectors.
Quebec	Agreement between the province and the Crees of Quebec.
Newfoundland and Labrador	Land claim agreements and applies to resource development within defined areas
Ontario	In 2008, the provincial government announced the implementation of resource benefits sharing, but has not developed a framework
New Brunswick	There are discussion of GRRS and the province is proposing to develop an oil and natural gas royalty regime

Source: PDAC (2014), p. 5

GRRS can be categorized into two types of arrangements, project-specific arrangements or integrated GRRS arrangements which include a formal agreement between a government and Aboriginal communities, and each province adopts a different type (PDAC 2014). The project-specific GRRS arrangements occur within a specific sector and negotiated between a government and Aboriginal community on a case-by-case basis. This arrangement is unique to British Columbia and to the Memorandum of Agreement for the Voisey's Bay project with the Labrador Innu (PDAC 2014). British Columbia applies the case-by-case negotiated GRRS to most of its natural resource sectors: mining, forestry, oil and gas, and clean energy. The approach was taken by BC as a result of other commitments, such as the Transformative Change Accord, the New Relationship, and other policy decisions. The second integrated GRRS arrangements apply to land claim agreements, covering a wide range of sectors that are also include in the land claim agreement between governments and specific Aboriginal communities. The GRRS bring the communities revenues from the resource project in addition to revenues which may be established through their ownership of subsurface rights in the land claim agreement. These arrangements can be found in the Yukon, NWT, Nunavut, Quebec, and Newfoundland and Labrador. Table 12 describes the land claim agreements which have GRRS provisions in Canada. More detail about GRRS within each jurisdiction will be provided within the overview of the province below, if applicable.

Table 12: Land claim agreements with GRRS provisions for Canadian jurisdictions

Jurisdiction	Count	Land claims with GRRS provisions
Yukon	11	Champagne and Aishihik First Nation Agreement Teslin Tlingit Council Final Agreement First Nation of Nacho Nyak Dun Final Agreement Vuntut Gwitchin First Nation Final Agreement Little Salmon/Carmacks First Nation Final Agreement Selkrik First Nation Final Agreement Tr'ondek Hwech'in Final Agreement Ta'an Kwach'an Council Final Agreement Kluane First Nation Final Agreement Kwanlin Dun First Nation Final Agreement Carcross/Tagish First Nation Final Agreement
Northwest Territories	4	Inuvialuit Final Agreement Gwich'in Comprehensive Land Claim Agreement Sahtu Dene and Metis Comprehensive Land Claim Agreement Tlicho Land Claims and Self-Governance Agreement
Nunavut	1	Nunavut Land Claims Agreement
Newfoundland and Labrador	1	Labrador Inuit Land Claims Agreement

Source: PDAC (2014), p. 7

5.1.2.2 Oil and Gas

The Canadian Association of Petroleum Producers does have any guides as to generating socioeconomic benefits or other community measures from their projects. One partial

exception is for a document on "Developing effective working relationships with Aboriginal Communities," which informs the consultation process (CAPP 2006).

5.2 Provinces and Territories

The information for the provincial scan has been taken from provincial government websites, secondary literature evaluating natural resource management regimes, and industry websites; this literature review is not exhaustive and as a result the depth of information reported varies across provinces. Secondary academic literature providing an overview of several jurisdictions was used as a starting point, and the information was supplemented from government websites and industry reports. Since there are only a few pieces of academic secondary literature that offer a comprehensive, updated and accurate overview of how jurisdictions manage their natural resources and distribute benefits, this jurisdictional scan is not all inclusive. A few instruments jurisdictions employ have been explored, but this list is not exhaustive. A comprehensive scan would be many times longer than this entire report.

Provincial and territorial governments can impose corporate income taxes on projects, in addition to the federal income tax and to another tax imposed for certain types of projects (NRCan 2015). While the federal corporate income tax applies to the company's earnings worldwide, the province may only tax income earned within their province or territory boundaries. Table 13 outlines the income tax rates imposed by the federal government and each province/territory on the mining sector, as well as the net combined income tax rate as of 2015. In addition to these taxes, provinces and territories can impose a tax specific to a natural resource activity. For example in the mining sector, the province can impose a corporate income tax as well as a mining tax levied on profits from the mine's operation (Table 14), and royalties for the exploration of the resource (both on and off shore) (Table 14) (NRCan 2015). Even so, mining companies can operate and regain most of their initial capital investment, before they must pay larger tax amounts to the federal and provincial governments (NRCan 2017). More information on taxation can be found in Section 3.1.2 of this report.

Table 13: Mining sector corporate income tax rates for Canadian provinces and territories

Province/Territory	Net Federal Tax Rate on Resource Income (%)	Provincial Territorial Income Tax Rate (%)	Net Combined Federal/Provincial/Territorial Income Tax Rate (%)
Alberta	15.0	10.0	25.0
British Columbia	15.0	10.75	25.75
Manitoba	15.0	12.0	27.0
New Brunswick	15.0	11.01	26.01
Newfoundland and Labrador	15.0	14.0	29.0

Northwest Territories	15.0	11.5	26.5
Nova Scotia	15.0	16.0	31.0
Nunavut	15.0	12.0	27.0
Ontario	15.0	10.0	25.0
Prince Edward Island	15.0	16.0	31.0
Quebec	15.0	11.9	26.9
Saskatchewan	15.0	10.0	25.0
Yukon	15.0	15.0	30.0

Source: Table taken directly from NRCan (2015) Tables on Structure and Rates of Main Taxes

Table 14: Provincial/territorial mining tax and royalty regimes

Province/Territory	**Title of Statute**	**Mining tax or royalty rate**	
		First tier	**Second tier**
Alberta	Metallic and Industrial Minerals Royalty Regulation	1% of mine-mouth revenue	12% of net profits after payout
British Columbia	*Minerals Tax Act*	2% on operating income	13% on cumulative net profit
Manitoba	*The Mining Tax Act*	n.a.	10% (<$50M) 65% ($50-55M) 15% ($55-100M) 57% ($100-105M) 17% ($105M)
New Brunswick	*Metallic Minerals Tax Act*	2% on net reveue	16% on net profit
Newfoundland and Labrador	*Revenue Administration Act*	15%	20%
Nova Scotia	*Mineral Resources Act*	2% of net revenue or NSR (net smelter return)	15% of net income
Ontario	*Mining Tax Act*	n.a.	10% (5% for remote area)
Quebec	*Mining Tax Act*	n.a.	16%
Saskatchewan	*The Mineral Taxation Act*	n.a.	5% (cumulative sales up to 1 M troy oz of precious metals or 1 M metric

			tonnes of base metals) 10% (above the thresholds)
Northwest Territories	Northwest Territories and Nunavut Mining Regulations	n.a.	Lesser of 13% and following formula: 5% ($10 000 -$5 M) 6% ($5 M - $10M) For every additional $5 M annual profit, the rate increases by 1% to a maximum of 14%
Nunavut	Northwest Territories and Nunavut Mining Regulations	n.a.	Lesser of 13% and following formula: 5% ($10 000 -$5 M) 6% ($5 M - $10M) For every additional $5 M annual profit, the rate increases by 1% to a maximum of 14%
Yukon	*Quartz Mining Act*	n.a.	3% ($10 000-$1 M) 5% ($1-$5 M) 6% ($5-10 M) For every additional $5 M, rate increases by 1% to a maximum of 12%

Source: Table taken directly from NRCan (2015) Tables on Structure and Rates of Main Taxes

Oil and gas operations in Canada are taxed by federal and provincial governments based on a three-tier system (PWC 2016). The first tier is a federal income tax, levied on the taxable income of an oil and gas operation; the second are provincial income taxes on taxable income; and the third tier are provincial taxes, lease rentals or royalties, levied on Canadian resource property or the production of oil and gas (PWC 2016). The major oil and gas producing provinces which are concerned regarding this taxation regime are Alberta, British Columbia, Saskatchewan, New Brunswick, Nova Scotia, and Newfoundland and Labrador (PWC 2016). Additional taxes, such as small business income tax, have not been explored in this report, however could be found in the PWC document (2016) in the online Appendix.

Provinces collect royalties for many natural resource projects, which differ among provinces. The royalty for conventional oil will depend on many factors and will differ for every province, which has been described in Table 15 (PWC 2016).

Table 15: Oil and gas royalty rates for Canadian provinces/territories

Province/Territory	Oil Royalty Rate	Gas Royalty Rate	The range and formula depends on
Alberta	Between 0%- 40%	Between 5%- 36%	Price and production (volume)

British Columbia	Between 0%- 40%	Between 0%- 40%	Nature of the production and type of product
Saskatchewan	Between 0%- 45%	Between 0%- 45%	Nature of the production and type of product
Manitoba	1.2% of volume sold for each production month	12.5% of volume sold for each production month	Price and production (volume)
Newfoundland and Labrador	Between 1% -7.5% with incremental royalty rates of 10% to 50% *with exception of projects mentioned in section 5.2.6.1	*Basic royalty* 2% when net back price is $4 10% when the net back price is $8 *Net royalty* 0%-50%	Gross sales revenue and cost index factors
New Brunswick	4% until capital costs recovered, then increase to 25%	4% until capital costs recovered, then increase to 25%	---

Source: PWC (2016)

Industrial benefit planning has gained popularity as a tool to manage positive socioeconomic effects which have been assessed through the EA or a social impact assessment (SIA) (Murphy 2013). Provincial EIAs (which we describe in some detail for the BC and Alberta) mostly focus on biophysical effects and socioeconomic effects from the biophysical effects (i.e. both at the federal and provincial level). Therefore, industrial benefits planning (IBP) has often been used to supplement EIA (Murphy 2013). Not all provinces use this instrument as a requirement, however many industries have developed benefits planning practices that they apply to their proposed projects in differing jurisdictions. IBP aims to maximize the socioeconomic project benefits to local regions and groups, not only through royalties and taxes, but having the project revenues invested into employment, business, and infrastructure (Storey and Shrimpton 2008). Indeed, the IBP tools include the EIA process, as well as benefits plans, special interest plans, studies, and multi-project scenarios (Table 17). An example in Newfoundland and Labrador's petroleum sector is explored in section 5.2.6.1.1.

Table 16: Industrial benefits planning tools used in North America

Industrial Benefits Planning Tools Categories	**Specific Tools**	**Examples**
Environmental Assessment	SEIAs Environmental Protection Plans	---
Benefits Plans	Supplier development Procurement	Newfoundland offshore oil industry (1985 Federal-Provincial Accord; section 5.2.6.1.1)

	Education, training, hiring, succession planning Technology transfer	Red Dog Zinc Mine, Alaska (i.e. Development/Operating Agreement 1982; section 5.4.2)
Special Interest Plans	IBAs Diversity/Equity Plans	Ekati Diamond Mine, NWT (i.e. SEA and four IBAs; section 2.2.3.1) Vancouver Island Highway Project (i.e. Diversity initiative for women and Aboriginal employment)
Human Resources, Infrastructure, Business Studies	Gap analysis Requirement/capability analysis	---
Multi-project Scenarios	Strategic Assessment Cumulative effects assessment Legislation	---

Source: adapted from Storey and Shrimpton (2008)

5.2.1 British Columbia

The unique relationship between the provincial government and Aboriginal peoples in British Columbia influences the agreements reached regarding proposed projects. Unlike in other provinces and territories, British Columbia has large areas not covered by historic or modern treaties, and the rights of Aboriginal Peoples over the lands and waters are unsettled (Brownee and Roberston 2009). The Crown must consult and accommodate the First Nations potentially impacted by their projects. The province views revenue sharing as a form of accommodation - yet revenue sharing is not a requirement for oil, gas, and mining revenues, hydro projects, or forestry (Brownee and Roberston 2009). The negotiation of BAs in any sector is done for a "social license" for the proponent or as part of reconciliation with First Nations: there are currently no legislative requirements that proponents negotiate and sign BAs or accommodation agreements with First Nations in BC outside of Treaty Settlement Lands (Brownee and Robertson 2009). However, some First Nations leaders set their own standards for BAs (Brownee and Robertson 2009). Thus, in the case of mining, revenue-sharing in mining is considered on a case-by-case basis. Even so, BC is the first province to directly share revenues from mining with Indigenous people, due to the Resource Revenue Sharing Policy of 2008 (Söderholm and Svahn 2015). Over time, there has been a shift in the province from benefits in the form of employment towards contracting opportunities, equity participation, and revenue sharing.

British Columbia also manages its natural resources through legislation. For instance, in the mining sector, the main pieces of legislation that govern major mines in BC are the Environmental Assessment Act (assessing potential impacts, expanded on below), the Mines Act (minimizes health, safety and environmental risks) and the Environmental Management Act (manages potential environmental harms) (BC Mine Information n.d.).

Environmental Assessment is a tool used by British Columbia to ensure project impacts are considered. The BC Environmental Assessment Act is the legislation for the EA process in British Columbia, administered by the BC Environmental Assessment Office (EAO) who also develop the framework for EAs in the province based on regulations, policies, and practices (EAO n.d.). A proposed project will trigger an EA process according to its size or production capacity, as outlined in the Reviewable Projects Regulation (B.C. Reg 370/2002). The project can also undergo a review if the BC Minister of the Environment (MOE) believes the review is necessary due to significant adverse effects, or if the proponent opts into the EA. The assessment comprises the effects of the project on "valued components" (i.e. environmental, economic, social, heritage and health effects), which can be both positive or adverse. The assessment most often is performed by the BC EAO, however the MOE can also appoint a hearing panel or a commission instead. The *BC EAA* contains time limits for the completion of the assessment and for the proponent to answer information request, however other details on conducting EAs are not included. Public comments are permitted through the EA process, and the province must consult and accommodate First Nations.

In British Columbia, a legally binding condition for proponents seeking to receive an Environmental Assessment Certificate is the development of a Socioeconomic Effects Management Plan (SEEMP). A framework for the development of SEEMP has been composed by the Ministry of Community, Sport and Cultural Development (BC MCSCD) and the Environmental Assessment Office (EAO) (BC MCSCB 2014). The framework offers proponents with a certificate direction on how they can develop their own SEEMP and ensure that they consider the effects of their infrastructure and services on socioeconomic factors and suggest ways to manage these effects. Each SEEMP should aim to clarify a proponent's role in the management of their project's socioeconomic effects (i.e. identification of SE effects, their communication, quantification, and mitigation). The framework suggests that a SEEMP cover the baseline content included in Table 18, for three overarching categories. The measures taken to address each of the points listed in Table 18 are then reviewed by the MCSCD which will in turn recommend to the EAO whether the SEEMP is satisfactory and that all stakeholders have been made aware of the plan. The MCSCD also reviews the proponent's monitoring and implementation protocol as well as the final report which is submitted at the end of the construction stage of the project.

Table 17: Required content within a Socioeconomic Effects Management Plan of BC

Economic Effects	Social Effects	Management Plan Relationships
Regional Labour Supply and Demand	Infrastructure and Services	Health Care Services Plan
Business Procurement	Community Populations	Emergency Response and Protection Services Plan
Contracts/Opportunities	Housing Availability and Affordability	Environmental Management Plan
Skills and Training	Health Care Infrastructure and Services	Waste Management Plan
Labour Supply	Community Utilities and Services	Worker Accommodation Plan
Housing Costs	Emergency Response and Protection Services	Business Opportunity Plan
		Labour and Training Plan

	Other Community Infrastructure and Services	Aboriginal Training and Inclusion Plan Work Camp Management Plan Transportation Plans Access Management Plan Aboriginal Consultation Plan GHG Emissions Management Plan Local Government Plans (i.e. Official Community Plan)

Source: BC MCSCD (2014)

5.2.2 Alberta

The oil and gas sector is a major industry in Alberta, which has benefited its residents, among others, through the creation of trust funds and tax reductions. Nearly 80% of oil and gas production in Alberta occurs on Crown land, for which the provincial government collects royalties (Fischer 2007). As described in further detail in Section 4.6.1, above, the province uses the revenues from oil and gas to keep low taxes for its residents and fund public goods (Fischer 2007). Returns to the public, in theory, come from the revenues placed in the Alberta Heritage Savings Trust Fund, which are invested into capital projects, health care, education, roads, and tax reductions.

Alberta has several main statutes and regulations that govern oil and gas in the province, as well as an EA process that applies to a number of resource projects (Deyholos and Cuschieri 2013). The Mines and Minerals Act (R.S.A. 2000, c. M-17) applies to mines on provincial lands (both their drilling and exploration activities), oil and gas leases and royalties. The act establish rules to prevent oil and gas waste and requirements for the economic development of oil and gas. Alberta also contains several acts to employ the EA process in order to manage benefits. The Alberta Energy Regulator (AER) is the single regulatory body that took over responsibilities of the Alberta Environment and Sustainable Resource Development (AESRD) and the Alberta Environment and Energy Resource Conservation Board in October 2014 (AER n.d.). The AER is responsible for issuing environmental and water permits, and regulatory investigations for proposed energy developments. The AER now administers several acts aimed at sustainable resource development, and environmental and human health protection. Energy projects are subject to the Responsible Energy Development Act (R.S.A. 2012, c. R- 17.3), the Environmental Protection and Enhancement Act (EPEA) (R.S.A. 2000, c. E-12) and the Alberta Energy Regulator Rules of Practice (Alta Reg 99/2013), among others. The *EPEA* aims to protect air, land and water by regulating the process for EAs, approvals and registrations. Under EPEA, an employee appointed by the Ministerial Order becomes the Environmental Assessment Director who decides whether a proposed project will undergo an EA based on the Environmental Assessment (Mandatory and Exempted Activities) Regulation. The EA process is composed of four regulatory steps: the EA process, public interest decision, approval with conditions, and compliance. Public comments are allowed through the EA process.

5.2.3 Saskatchewan

Saskatchewan has established many joint processes between governments (i.e. federal, provincial and First Nations) in order to manage its resources and distribute fair benefits among the governments. In the mining sector and in the 1990s, the province established a regulatory framework composed of a tripartite process involving the provincial, federal and Aboriginal governments in the mining sector. The regulatory framework gathered benefits for Aboriginal and local communities from: royalty agreements, labor market planning, procurement planning, regional development planning, communications and taxation (Söderholm and Svahn 2015). Additionally, the Northern Saskatchewan region has a joint venture-type process for mining projects which incorporates government, industry, and local communities that focus on investment funds (taxes), local employment and procurement, and staff training (Söderholm and Svahn 2015).

Mining companies operating in Saskatchewan often enter into surface lease agreements or human resource development agreements. According to the Government of Saskatchewan website (2016), mining companies have committed to benefiting Saskatchewan's northern communities from their mining projects. The commitments are outlined in individual company surface lease agreements or in human resource development agreements, which are considered socioeconomic agreements by the provincial government. Surface lease agreements are mandatory according to the Ministries of Environment and Government Relations, and so are human resource development agreements by the Ministry of Economy. The agreements report on employment rates, business opportunities, training and education initiatives, and employee services. As of 2015, northern Saskatchewan had seven mine or mill operating in the region, and of these five are uranium projects: McArthur River mine, Key Lake mill, Rabbit Lake mine/mill, Cigar Lake mine and McClean Lake mill (Government of Saskatchewan 2016). All projects reached a total of 12 agreements for the projects outlined in Table 18 (note: the agreements are not accessible online and thus are not included in the online Appendix). McArthur (1983) performed an evaluation of a few older agreements: the Cluff Lake and Key Lake surface lease agreements. McArthur demonstrated that early agreements were faulted in terms of job creation for northerners. The jobs were not only filled by northerners, especially during the construction phase and in supervisory and management positions - which require more expertise. Moreover, the enforcement and monitoring commitments made in the agreement were not properly fulfilled, with members of the monitoring committee having minimal decision-making authority and limited information (study can found in the online Appendix). It is important to note that many aspects of the agreements may have been updated since the agreements were reached.

Table 18: Uranium mines in northern Saskatchewan with agreements bringing SE benefits

Projects	**Operators**
Cigar Lake	Cameco
Key Lake	Cameco
McArthur River	Cameco
McClean Lake	AREVA
Midwest Project (part of McClean Lake)	AREVA

Rabbit Lake	Cameco
Seabee	Claude Resources
La Ronge Gold Project	Golden Band Resources
Beaverlodge	Cameco
Cluff Lake	AREVA
Konuto	Hudbay Minerals
Parks Lake (part of Rabbit Lake)	Cameco

Source: Government of Saskatchewan (2016). These projects include operating mines, mines in care and maintenance, decommissioning, and reclamation.

Specifically to uranium mining, a committee has been developed to monitor the sector's operations. Northern Saskatchewan Environmental Quality Committee (NSEQC) was established in 1995 to monitor uranium mining in Northern Saskatchewan and ensure that all environmental measures and socioeconomic commitments are applied (Government of Saskatchewan, n.d.). The Committee is composed of 34 municipalities and First Nations which have an interest in the northern mining operations, who were initially identified in the Human Resource Development Agreement of any uranium mine proposed. The Committee represents an effort at collaborative decision-making between northerners, government and the uranium mining industry, establishing communication measures and informed dialogue. The Committee is supported by the Northern Mines Monitoring Secretariat, which in turns is supported by several ministries including the Ministry of Government Relations and the federal Canadian Nuclear Safety Commission (Government of Saskatchewan, n.d.).

In the forestry sector of Saskatchewan, First Nations have clearer decision-making authority. The Meadow Lake Tribal Council (MLTC) is composed of elected chiefs from nine First Nations, responsible for negotiating with the federal and provincial government. In 2001, the federal government and MLTC signed a self-government agreement-in-principle; and together with the province, also signed a tripartite agreement-in-principle for any economic developments happening on the lands of the MTLC members (Brownee and Roberston 2009). Moreover, the *NorSask Forest Management License Agreement* provides MTLC First Nations hiring priority, as well as harvest rights and reforestation responsibilities

5.2.4 Manitoba

Manitoba manages its resources and their benefits through legislation, industry programs, and development agreements, among other modalities. Policies for land use management, Aboriginal communities, public consultation and mining activity are included in the Mines and Minerals Act (M162), the Mining Tax Act (M165), the Crowns Land Act (C340), and the Environment Act (E125). The province has the Minister's Mining Advisory Council to ensure Aboriginal communities and the public are considered in decision-making regarding mining and other resource development projects within the province (Ferguson 2015). In 2012, the mining sector was the second largest natural resource industry in Manitoba, and the excess revenue from

the mining sector to the province was used to set up health, social, educational, and environmental programs (Ferguson 2015). The Mining Association of Manitoba also established some industry programs, which included the development of prospecting courses, job training, outreach, and cultural awareness courses for Aboriginal communities and for all interested parties (Ferguson, 2015).

The province also has development agreements within the hydroelectric sector, which pose a good example for benefit-sharing. In 2012, the World Bank released a framework for ensuring that local communities receive benefits from hydroelectric projects, titled "A Guide for Local Benefit Sharing in Hydropower Projects" (Buckland and O'Gorman 2014). This report recommends that projects practice: stakeholder consultation, monetary benefit-sharing, transparent and efficient implementation of the benefit-sharing program, and mitigation of harmful effects. Manitoba's Joint Keeyask Development Agreement (included in the Appendix) has been evaluated relative to the World Bank framework for benefit-sharing from hydro-projects (World Bank 2010). It aligned with the framework's non-monetary benefit sharing objectives. The agreement was joined by the Hydro Northern Training and Employment Initiative (HNTEI), offering training and employment opportunities not only for the Keeyask project, but also for northern Manitoba members wanting to work on other projects. The agreement also supported community initiatives such as Cree language support programs, resource access programs and oral history programs.

5.2.5 Quebec

The Quebec government has obligations to Aboriginal communities. Their obligations to the Cree people is included in section 28 of the James Bay Agreement 1975 and *The Crees of Quebec and the Quebec La Paix des Braves Agreement, 2003*. The agreements allow revenue sharing and joint management of mining, forestry and hydroelectric resources on traditional Cree lands between the Cree and Quebec governments. (Söderholm and Svahn 2015). Moreover, proponents looking to develop in the province negotiate with Inuit communities. For instance, Falconbridge negotiated with the (Inuit) Makivik Corporation about the Raglan mine in Northern Quebec on the basis of merit due to a Inuit claim recognized by federal government, forming a bilateral agreement with payments to a fund for local procurement, employment and staff training for Inuit people (Sosa and Keenan 2001). On the fiscal side, as of 2014, Quebec implemented a policy to ensure mining companies pay a minimum mining tax, and a proposed progressive tax on profit to promote mining (Söderholm and Svahn 2015).

5.2.6 Newfoundland and Labrador

After the fisheries collapse on the east coast, the province of Newfoundland and Labrador has turned to benefits from industrial development, particularly offshore petroleum and mining (Murphy 2013). The resources are managed by government boards that outline policies aiming to achieve sustainable development. The Mines and Energy Branches develop resource policy and coordinate/facilitate sustainable development and management (Newfoundland Department of Natural Resources (NLDNR) 2017a). They develop and monitor supporting regulatorions and initiatives that aim to optimize benefits for any on-shore activities. Off-shore activities are managed by a federal-provincial joint regime, the Canada-Newfoundland and Labrador Offshore Petroleum Board. The Department of Natural Resources is responsible for any royalty development for both onshore and offshore petroleum activities. As for electricity

resources such as hydro projects, the implementation duties fall to the Public Utilities Board and Newfoundland and Labrador Hydro.

5.2.6.1 Offshore petroleum

The socioeconomic benefits of off-shore petroleum in Newfoundland and Labrador are managed through the negotiation of benefits agreements between the province and the company, and royalty regimes (NLDNR 2017b). At present, the province has offshore royalty regulations, supplemented by specific royalty agreements with project proponents. All offshore petroleum projects have negotiated BAs between the province and the companies that provide the province with royalties, employment commitments and targets, and industrial benefits. For example, the Hibernia South Extension has a BA that guarantees that the majority of expenses for the project will be provided by local businesses (NLDNR 2017c). The province also contains a few examples of royalty regimes: New Generic Offshore Oil Royalty Regime 2015; Offshore Natural Gas Royalty Regime; Generic offshore oil Royalty Regime; Generic onshore Royalty Regime (NLDNR 2017b)**.** The same royalty regime (between 1% to 7.5% with increments of 10% to 50% on gross sales revenue and cost index factors) applies for offshore oil projects, with the exception of the following specific projects: Hibernia, Terra Nova, White Rose, Hebron, White Rose Expansion and Hibernia South Expansion (PWC 2016). Moreover, offshore oil projects can have negotiations of BAs and establishment of clear regulatory and royalty regimes, employment commitments and targets, and industrial benefits, according to the Offshore Accord legislation (GNLC 2017).

5.2.6.1.1 Industrial benefit planning

The province has also turned to *industrial benefit planning* to derive socioeconomic benefits for the province when reaching development agreements with the petroleum industry (Murphy 2013). Industrial benefit planning (IBP) is a component of the EA process for resource development projects in Newfoundland and Labrador, which also plans for socioeconomic benefits assessed through social impact assessments (SIA) (see section 5.2. for details about industrial benefit planning). The industry has established IBP practices which include commitments to increasing employment in the province.

Newfoundland has faced some constraints with the distribution of socioeconomic benefits from its resources projects, mainly a skills mismatch with the local labour force and the distribution of benefits between the province and community (Murphy 2013). A survey of localresidents in Newfoundland communities showed that they were not satisfied with the benefits received because they were distributed at a provincial level (Porter and Vodden 2012). Additionally, a disconnect has been noticed in the province between the highly-skilled jobs needed by the development projects and the skills local residents have (Murphy 2013). Only a few proponents promoting their CSR have offered skills training in their plans or other strategies, policies and actions.

Since 2007, the province has required women's employment plans for large-scale projects (NLDNR 2007; Murphy 2013). For example, the regulator (C-NLOPB) for the Husky Energy's White Rose offshore development in 2001 made a recommendation proposed by the Women in Resource Development Committee (WRDC) to form a benefits plan specifically for women. Another approach is to work closely with governments and training institutions. The Hebron

benefits plan, for instance, provided support and contributions to post-secondary institutions and communicated expected labour needs to training institutions (Murphy 2013; Hebron Benefits Agreement found in the online Appendix).

5.2.6.2 Mining

The socioeconomic benefits in the mining sector of Newfoundland and Labrador are managed through environmental assessment processes and benefit agreements between the province and the companies. Proponents must describe the potential effects their project may have on business and employment in the province through the EA process managed by the Department of Environment and Conservation (NLDNR 2017d). A provincial benefits plan may be required as part of the approval process. Employment from the provincial labour force has become a standard requirement for regulatory approvals of mining projects in the province (Murphy 2013). For example, several iron ore developments in Labrador needed to provide employment opportunities.

An example of an IBA reached in Newfoundland is the one regarding the Voisey Bay Nickel Mine (VBNC 1997) on the north coast of Labrador. The IBA underwent multiple negotiations between Inco Ltd. (proponent) and other parties, mainly four governments: the Canadian federal government, the province of Newfoundland and Labrador, the Innu Nation, and the Labrador Inuit Association, about the potential local and regional contributions the project may have (Gibson 2006). The negotiations were lengthy (1997-2002) and controversial, however the parties reached an agreement in 2002, covering the mine, mill, concentrator operation, and metal procession/refining operation. The proponent signed impact and benefit agreements (IBAs) with the Innu and Inuit in exchange for permission to enter their traditional territories. The IBA included a human resources survey for assessing employment skills and availability, discussed business opportunities, and provided funding for the communities. Gibson (2006) argued that while the province has been inclined to deny Aboriginal rights and titles, and to argue with the federal government over resources and revenue sharing, during the negotiations the province was focused on long-term plans – advocating for job creation, capturing value-added benefits from provincial resources, enhancing provincial revenues, and economic diversification.

5.2.7 Yukon

The instruments driving socioeconomic benefits in the Yukon are largely land claim agreements, however legislation, several socioeconomic agreements, and royalties programs also play a major role (NRCan 2014b). The main legislation is the Yukon Environmental and Socioeconomic Assessment Act, 2003, as well as the *Yukon Oil and Gas Act, 2002* (Dupuy 2014), which calls for the signing of BAs. The Act requires that the proponent outline how Yukon residents will benefit from the project by acquiring employment and training and the goods and services provided to the communities (Brownee and Roberston 2009; Dupuy 2014).

Settled land claim agreements are foundational in the Yukon, as they administer legal powers and responsibilities to the FN who have entered into these self-government agreements. Negotiated Final Agreements have been settled for eleven of fourteen First Nations in the Yukon (PDAC 2014). The Yukon Umbrella Agreement (also known as the Umbrella Final Agreement (UFA)) and these individuals Final Agreements refer to royalties and GRRS arrangements. Royalty sharing for Treaty First Nations is a requirement built into the treaties of

signatories Nations (Brownee and Roberston 2009). Any development on their Category A lands (core Treaty lands) will provide the Nation with 100% of the royalty revenues. If the royalties are transferred to the provincial government, the First Nation receives 50% of the first $2 million in addition to the Yukon First Nation Royalty (which is 10%).

The Yukon also plays host to benefit agreements between companies and First Nations. Six IBAs signed between 1991 and 2005 have been established in the Yukon for the following project: Mt. Hundere, Kudz Ze Kayah Exploration, Wolverine, Faro, Mt. Nansen, and Brewery Creek (NRCan 2014b; IBA Research Network, n.d.). These agreements are not accessible online, however there is still some information out there. The Faro Mine agreement, with the Ross River Dena First Nation, was studied in a UNBC Master's thesis (Dreyer 2004). The IBA came out of a court case involving the ownership of the mine after the company, Curragh Resources Limited, declared bankruptcy. The court ruled that the purchasers of the mine sign an IBA with the Ross River Delta Council (RRDC), representing the Ross River Dena First Nation – a sign of progress for the Nation after 25 years of conflict over their rights (Dreyer 2004). The Faro Mine IBA included provisions for employment, business opportunities, training, housing, scholarships, and trapline support. The Kudz Ze Kayah IBA was also negotiated by the RRDC. The exploration of this mine stopped when the minerals proved costly to process. The research revealed that community members from the Ross River Dena Nation were more satisfied with the positive benefits received in the Kudz Ze Kayah IBA than the Faro Mine IBA (Dreyer 2004).

The provincial government developed guidelines to improve relationships between mining proponents and First Nations in the Yukon. The Department of Energy, Mines and Resources developed a handbook in 2006 which generally informs the potential socioeconomic effects for Yukon mining, oil and gas projects, as well as their mitigation measures, determination of significance, monitoring, and adaptive management (Kishchuk 2006). A Yukon-specific guide was developed to help mining, exploration, and development companies to establish working relationships with Yukon First Nations and communities, titled *Engaging with Yukon First Nations and Communities: A Quick Reference Guide to effective and respectful engagement practices (2012)* (NRCan 2014b). The guide has been successful and helpful for the mining industry in Yukon, as it provides descriptions of Yukon's unique environment, the regulatory, permitting, and land operating contexts, and information about each First Nation in Yukon.

5.2.8 Nunavut

The land ownership structure in Nunavut differs from other provinces and territories, which affects the distribution of benefits from resource projects. Mineral resource ownership in Nunavut either belongs to the federal government or to the Inuit, according to the Nunavut Land Claims Agreement (NLCA) (1993) (PDAC 2014). The NLCA is implemented by Nunavut Tunngavik Incorporated (NTI), which also ensures that the federal and territorial governments perform their obligations. Any major development project proposed in Nunavut will require an Inuit Impact Benefit Agreement (IIBA) as per Article 26 of the NLCA- which includes exploration and development of resources. The IIBA consider the establishment of employment, capital cost, and even national parks/sanctuaries. Nunavut also has water compensation agreements if water bodies are impacted by the project. (Brownee and Roberston 2009). The Inuit receive a share of all royalties from development activities that the federal government gets, which is outlined in Article 25, Resource Royalty Sharing, in the NLCA (PDAC 2014).

5.3 International

5.3.1 Norway

Norway provides a good example of sharing resource benefits with its citizens. In fact, in 2003, Norway ranked first out of 58 countries on the Resource Governance Index evaluated by the Natural Resource Governance Institute (2013). Norway has a legislative framework which ensures its residents receive benefits from resource projects. Not only are the role of the managing authorities (i.e. Petroleum and Energy Ministry, the Petroleum Directorate and Statoil) clearly defined, but the country governs its resource income effectively (NRGI 2013). Norway's resource revenue management uses revenues from resource development to invest into its country using a well-governed, transparent central budgeting and saving system (Fischer 2007), in the form of a natural resource fund (NRF) monitored by the Finance Ministry (NRGI 2013). Norway established the Government Pension Fund Global, (i.e. previously known as the Government Petroleum Fund) which is managed by Norges Bank Investment Management for the Norwegian people. The NRF has a spending rule of 4% of funds a year (section 4.6.1 expands on this NRF and its success at managing non-renewable resource income). In 2013, the fund was valued at $613 billion (NRGI 2013) and at $850 billion in 2014 (Bauer and Toledano 2014). Revenues from oil contained in the fund have been invested into sustainable growth in the public sector employment and social security, and indirectly by avoiding public debt accumulation and interest payments (Fischer 2007). Even so, compared to Alaska and Alberta, Norway's taxes for residents remain high.

5.3.2 Alaska, USA

Alaska receives its benefits through established property rights for native communities and royalties from companies. Alaska has been receiving many royalties from the mining industry since the 1960s (Söderholm and Svahn 2015). In 1976, the Alaska Permanent Fund was established as a large-scale benefit-sharing mechanism (Söderholm and Svahn 2015) and is the destination for at least 25% of mineral payments to the state (Alaska constitution, Article IV, Section 15). The value of the assets in the fund as of 2014 were an estimated $52.4 billion (Bauer and Toledano 2014). The benefits from the fund are paid by dividends or payments to citizens of Alaska, and rarely invested into projects focused on social or economic benefits (see section 4.6.1 for details) (Fischer 2007; Fraser Institute 2013). At the project level, the operators of the Red Dog mine, a joint venture between NANA Regional Corporation (i.e. a Native corporation) and Alaska Teck Cominco, have been paying royalties to native land owners for education, essential services, and prioritized construction projects (Storey and Shrimpton 2008). In this case, the property rights of the native landowners were well established due to the Alaska Native Claims Settlement Act of 1971, which among other things, initiated for-profit corporations with only Native shareholders (i.e. NANA Regional Corporation), allowing them to benefit from the employment and advancement opportunities brought forth by the mine. NANA then signed the Development and Operating Agreement in 1982, permitting Alaska Teck Cominco to develop the mine and share economic revenues. NANA received $1.5 million and an additional $1 million every year until the mine's production stage, in which case it received 4.5% of the smelter's net returns (Loeffler 2015). The mine has had generally a positive effect on the communities nearby, according to a study by Loeffler (2015).

The State of Alaska is also considering a taxation mechanism on mining projects which would benefit communities. As of 2013, there was discussion in the Alaska Minerals Commission

to allocate tax revenues from the State of Alaska Mining License Tax back to communities affected by mining projects (Alaska Minerals Commission 2013). The Commission was considering basing the mechanism on a similar, existing revenue-sharing approach in the fishing industry (Alaska Minerals Commission 2013; Alaska Minerals Commission 2016). The Commission aimed to avoid discouraging investment from mining projects in the state by deciding on the timing and rate of tax (Alaska Minerals Commission 2016).

5.3.3 Australia

Aboriginal communities in Australia have benefit-sharing mechanisms with mining companies, yet have not always received extensive direct benefits (O'Faircheallaigh 1991; Fischer 2007). Most mining companies have established benefit-sharing mechanisms with Aboriginal communities in Australia (Söderholm and Svahn 2015), with a common financial regime being the collection of royalties according to the Land Rights Act (Fischer 2007; Söderholm and Svahn 2015). The Act also grants Aboriginal communities some control over the exploration activities and mining projects that will take place in their lands, and negotiate contracts with the companies. Even so, the financial regime did not follow a structured policy framework and transparent practices. The allocation of funds was uneven for most of the first benefit-sharing agreements. The Act established the Aboriginal Benefit Reserve (ABR) to receive and distribute mining royalties to the Aboriginal communities affected in the form of "mining royalty equivalents" (MREs) which change every year (Fischer 2007).

Frameworks have been created to instill some order in the BA process, including in the more recent oil and gas space (Limerick et al. 2012). There are many examples of agreements and their description in Table 20. Certain agreements were reached under legislation, such as the Aboriginal Land Rights (Northern Territory) Act 1976 or the Native Title Act 1993, created to provide a legislative framework to arrange native title claims. As per section 31 of the Native Title Act 1993, Aboriginal communities with resolve title claims have a right to negotiate (RTN). Failure to reach agreement with the peoples can be resolved by taking the matter to the National Native Title Tribunal (NNTT). Other agreements were signed through Indigenous land use agreements (ILUAs), a framework introduced in 1998, allowing Aboriginal communities to openly negotiate with companies even without having determined native title. ILUAs are statutory agreements which allow the negotiation of access and management, compensation and agreement on future development, among others.

Australia has seen some unsuccessful older agreements, countered by some recent successful agreements (Söderholm and Svahn 2015). For example, the Nabarlek uranium mine (1979) had a poor financial reporting system, and the benefits were distributed as cash payments or in consumer goods (e.g. vehicles, houses, boats). The Ranger uranium mine (1981) established an investment fund, which provided services such as infrastructure, school lunches and mechanical maintenance - that fluctuates in quality and stability, and among local and Aboriginal communities. On the other hand, recently the agreements reached between companies and Aboriginal communities have been more successful. For example, the Argyle diamond mine and Aboriginal communities signed an agreement in 2004 that provided long-term benefits: partnering in the community, supporting education and training, improving health, building economic independence, and sustaining law and culture. The state government also provided annual funds in addition to the companies for the Weipa bauxite mine (Rio Tinto Alcan) and the Aboriginal communities, supporting local capacity building and business development. Yet in the region of

Western Australia, annual reinvestment of the mining royalties (around 25%) have been reinvested into mining infrastructure, which increases the dependence of the state on the resource extraction sector (Söderholm and Svahn 2015).

The Argyle Diamond Mine is considered a successful Indigenous land use agreement that has brought many benefits to Aboriginal communities (Limerick et al. 2012; Loutit et al 2016). A package of agreements between Argyle Diamond Mines Pty Ltd (Argyle), the Kimberly Land Council, and the traditional owners of the land included a Participation Agreement and a Management Plan Agreement (which can be found in the Appendix). An ILUA usually covered native title issues, and commitments and implementation were covered in other agreements - allowing flexibility in the amendment of non-title related agreements (Limerick et al. 2012). Moreover, Argyle involved not only the traditional owners of the land (i.e. recognized by the Australia's Native Title Act) and the Kimberly Land Council to participate in the negotiation of an agreement, but other community members with a right or interest under the Aboriginal laws and customs (Loutit et al. 2016). The preparation for the negotiations took years with many communication tools (i.e. poster, videos, workshops) used to ensure communities understood the project and the content of the negotiations. Participation funding as an initial grant, provided by the proponent and the government to ensure adequate participation, was seen as crucial to the success of the negotiations (Loutit et al. 2016).

Some of Australia's Aboriginal communities have also developed trusts to manage funds received from agreements with mining companies. The Warlpiri Education and Training Trust (WETT) was established in 2005 after negotiations between Newmont and the Central Land Council (CLC), which was representing the Warlpiri Nation (Limerick et al. 2012). The trust is managed by a landowner association named Kurra which considers the suggestions of an advisory committee composed of Warlpiri members, the CLC, the Northern Territory Government, and the Commonwealth Government, often investing the funds into community development programs. The WETT gathers around $1.2 million a year and since 2009, Kurra has invested into five programs: the Warlpiri language and culture support; early childhood care and development program; youth and media program; secondary student program; and the learning community centre program (Limerick et al. 2012). The success of the trust and programs has been attributed to strong community-based support and involvement with a well-established governance structure, taking ongoing expert advice and learning from other experiences, good consultation with Aboriginal members, partnerships for community based organizations with appropriate resources, and finally a good design of programs (Limerick et al. 2012).

Table 19: Oil and gas sector BAs in Australia

State/Territory	Agreement	Description
Northern Territory	Mereenie Oil and Gas Field	Agreement between Aboriginal landowners and Santos Ltd under the Aboriginal Land Rights (Northern Territory) Act 1976, negotiated by the Central Land Council in 2002 and 2003
	Amadeus Basin	Exploration agreements under the Aboriginal Land Rights (Northern Territory) Act 1976 and the Native Title Act

	Beetaloo Basin, near Daly Waters	Oil and gas exploration agreement by Sweetpea Petroleum with the Northern Land Council in 2003
South Australia	Cooper Basin, north-east SA	Exploration and developments in Moomba area, operated by Santos and the development of Cultural Heritage Management Plans with the Dieri, Boonthamurra and Yandruwandha Yawarrawarrka Traditional Owners.
	Officer Basin, north-west WA	Agreement between Pitjatjantjara Council and Indonesian petroleum explorer, Ahava
Queensland	Gladstone Liquefied Natural Gas	Santos signed 42 individual ILUAs with Aboriginal communities in 2010 for the GLNG project, from Gladstone through to Roma
	Queensland Curtis LNG project	QGC reached ILUAs with eight Native Title claimant groups in 2010, with a focus on implementation and ongoing governance
Western Australia	Burrup and Maitland Industrial Estates Agreement	In 2003, the Burrup and Maitland Industrial Estates Agreement Implementation Deed with three Aboriginal groups was signed. The Burrup Agreement established the Murujuga Aboriginal Corporation (i.e. an Aboriginal Body Corporate) to manage financial and other benefits of the agreement.
	Browse Basin	In 2009, Woodside, the Western Australian Government and the Kimberley Land Council (KLC) signed a Heads of Agreement to build a LNG Precinct at James Price Point, bringing $1.5 billion to local Aboriginal communities of social and economic benefits over 30 years, including $250 million from Western Australian Government. Yet the lacking consent from all native title parties led to the Western Australian Government announcing compulsorily acquirement of the land in 2010.
Northern Territory	Wickham Point LNG, Darwin	A 1999 agreement with the Northern Land Council included payments to Aboriginal land owners, a liaison committee, and an Aboriginal employment strategy.
	Ichthys Project, Darwin	In 2009, the Larrakia Development Corporation and INPEX signed an MOU for employment, training and business opportunities for the Larrakia, and support with other initiatives.
	Bonaparte Basin (Blacktip field)	This project's 2009 agreement was also subject to a long term lease agreement as per the Aboriginal Land Rights (NT) Act

		1976 - agreements with the Northern Land Council representing the National Native Title Tribunal.

Source: Adapted from Limerick et al. (2012); ILUA stand for Indigenous Land Use Agreements

5.4 Jurisdictional expertise

The jurisdictional scan does not offer a comprehensive analysis of natural resource management and benefit sharing within each jurisdiction since in most cases we were unable to find reports that sought to do this. Moreover, the approach in law may not always line up with the experience of administrating or navigating the development of large projects. Indeed, properly researching any single jurisdiction—let alone 12 or more—would be beyond the scope of this report. To get a sense of the overall approach to regulating and incentivizing socioeconomic benefit-sharing from natural resource projects, we reached out to a handful of experts who are knowledgeable about a policy regime in particular. We drafted some questions, and conducted semi-structured interviews. We share curated versions of those interviews in Appendix 1.

The interviews revealed fundamental weaknesses with the current system of proponent- and community-driven BAs. As Tom Gunton shared with us about the government perspective in British Columbia, and Jordon Kuschminder shared with us about the investor and community perspectives in Alberta's oil sands, investors face uncertainty, governments struggle to make sense of the system, and outcomes are very divergent across communities. Moreover, as Byambajav Dalaibuyan related from Mongolia, which recently mandated an organized approach to BA implementation at the subnational level, so-called best practices are hard to transport from one jurisdiction to another.

6 Incentivizing positive corporate behavior

This section will describe some of the language used in the SEAs in the NWT and compare it to language used to derive similar benefits in other agreements and jurisdictions. The objective is not to provide a legal opinion, which at any rate we are not qualified to do, but instead to point out where in other contexts different tactics have been used. Agreements, policies, and laws differ in their *de jure* levels of accountability and the power of incentives insofar as they attempt to elicit corporate behaviour that enhances the generation of socioeconomic benefits. Of course, *de jure* clauses and requirements are one thing, and *de facto* enforcement is another. Voluntary corporate action, pre-emptive corporate action (anticipating court challenges or stakeholder opposition, for example), or behind-the-scenes negotiation with government regulators may also differ substantially across jurisdictions, whatever the strength of formal clauses in contracts and law. It may be the case that in some places, "strong" laws or agreements are not accompanied by results that matter, in terms of improved socioeconomic prospects of affected populations, whereas in other places, "weak" agreements form a common and pragmatic understanding that results in good outcomes.

There are many socioeconomic benefits covered in the SEAs but for ease of comparison this section will focus on employment of residents and contracting to local firms. These goals are nearly ubiquitous in natural resource contracts and policies, so provide a useful starting point to contrast language and incentives. Rather than analyze all of the SEAs, we will examine the two most recent ones: the De Beers Gachho Kue Project (2013) and the Diavik (amended 2015)

agreements. For ease of exposition, we will focus on direct employment efforts, for now ignoring employment through contractors. Similarly, we will focus on direct contracting rather than the compelling of contractors to subcontract to local firms.

There are a variety of publically available resources containing agreements between governments and natural resource extracting firms. First, "model" agreements have been developed to assist governments with consistent and strong language, for example the Model Mining Development Agreement (MMDA) Project, http://www.mmdaproject.org/?p=1727 or Otto (2010) for a model community development agreement. For petroleum and mineral agreements, there are some 1500 contracts and documents available to search at http://resourcecontracts.org/ and they are searchable based on clauses. For land, agriculture, and forestry agreements, there are nearly 200 available at http://openlandcontracts.org/. For community benefit agreements, around 30 are available at http://ccsi.columbia.edu/work/projects/community-development-agreements-frameworks-and-tools/. In addition to these documents, other public policies and agreements are often publicly accessible. This section does not attempt to comprehensively search these agreements for "best practice," but rather pull out salient examples.

6.1 Employment targets

The employment clauses in the NWT SEAs represent aspirational, or soft, targets without penalties for noncompliance and with few actions required of the company. In the Gahcho agreement, De Beers Canada (DBC) shall use "best efforts" (3.4.2) to apply the hiring priorities outlined in the agreement, which stipulate a continuum from Aboriginal Authorities to persons non-resident in the NWT. It shall use "reasonable efforts" (3.4.3) to achieve specific numerical targets—from 35% of the workforce who are NWT residents during construction up to 55% during closure. But the SEA also states that both DBC and the GNWT "acknowledge that the achievement of NWT Resident employment is subject to the availability of NWT Residents with the required skills, training and experience and ability to pass training program entrance requirements" (3.4.4), that "developing qualified workers" is a "shared responsibility" (3.4.5), and that if employment targets are not met, then "working together" to understand and address the challenges is "appropriate and adequate mitigation" (3.4.6). DBC commits to take concrete steps to meeting employment targets, including facilitating travel to the work site and offering appropriate schedules (3.6) as well as a variety of human resource development activities (4). In the Diavik agreement, Diavik Diamond Mines (DDM) also signals its intent to hire along a continuum of priorities from Aboriginal persons to non-Canadians "subject to the availability of persons in these priority groups with the required skills, training and experience" (A.1), with "special emphasis" on training and employment at a list of selected communities (A.2). The agreement specifies that it will take "all reasonable steps, acting in good faith" to reach numerical targets, from 40% of workforce are Northerners in the construction phase to 66% in the operations phase, with Aboriginal employees reaching 40%, but that these figures are, again, "[s]ubject to the availability of Northerners with the required skills, training and experience" (A.3). DDMI aspires to reach a 100% Northerner project workforce, using various incentives and programs determined at "its sole discretion" (A.5) though it reserves "the right to make independent decisions, in its sole discretion" regarding qualifications and other terms of employment (A.6). However, DDMI commits to a set of activities that ought to increase the chance of hitting these targets including "endeavor[ing] to develop work schedules compatible with the traditional pursuits of Aboriginal employees" and

"promot[ing] and encourage[ing] partnerships with local schools for work experience" (A.8). The company also commits to providing transportation to the mine site for workers from key local communities (A.10) without committing to further actions outside those communities (A.11 and A.12).

The language can be strengthened through (a) hard targets and (b) penalties for noncompliance. Most mining agreements are similar to the above SEAs to the extent that they cover local employment, in that they establish a norm for hiring locals but with substantial discretion allowed to the contractor. For example, in the MMDA the language is fairly weak: "In selecting employees to carry out its Mining Operations under this Agreement the Company shall give preference to qualified and competent [the State] executives, officers, engineers, consultants, technicians and skilled and semi-skilled labour." (The entire section on local employment from the MMDA, including the example contract mentioned below, is reproduced in the Appendix.) However, example #2 from actual contracts—the country and company identities are hidden, but we identified it as the Mongolia Oyu Tolgoi project with Rio Tinto—shows the potential for harder targets.

The Oyu Tolgoi copper-gold mine in Mongolia demonstrates the potential of harder targets and penalties.[20] Its clause 8.4 notes that "[i]n accordance with Article 43.1 of the Minerals Law, not less than 90% (ninety percent) of the Investor's employees will be citizens of Mongolia." A fine for employing foreign nationals within that limit must still be paid, equal to twice the minimum monthly wage (8.6); if the limit is breached, the fine is ten "times the minimum monthly salary for each foreign national in excess of the specified percentage" (8.7), and the government will use some of the funds collected to train its citizens. Among other initiatives, the company must hit specified targets on scholarships to Mongolians at national and international universities in a specified timeline (8.15).

Even in countries with a shortage of skilled employees, contracts can specify between skilled and unskilled positions. In Liberia, for example, an oil agreement with Exxon stipulated a generic clause on local employment: "The Contractor shall employ Liberian citizens in the performance of Petroleum Operations in Liberia whenever suitably qualified and available for employment" (29.1), yet it goes on to say that "the Contractor shall hire only citizens of Liberia for unskilled labor positions within Liberia" but without specifying what constitutes an "unskilled" position. The contract also includes specific financial targets that the company must meet in terms of budgeting on training programs as well as a contribution to the University of Liberia.

Northern BAs have special reference to employment generation in remote, Aboriginal communities. For example, the Qikiqtani Inuit Association and Baffinland Iron Mines Corporation (2013, section 7, included in the online appendix) IBA requires the company to post a job first in the priority Inuk communities: "If no qualified candidates are identified and hired within 28 days through this posting system, the Company may recruit from wherever qualified staff can be hired" (7.7.1). The IBA also requires that the company provide free transportation to the mine site and make an effort to employ those Inuit who lack fluency in English, but for positions where "fluency does not compromise safety" (7.4.1). Additionally, noting the cyclical nature of mining activity, the agreement stipulates that "[i]n the instance of a temporary closure or

[20] The larger contract from which the example is drawn, Oyu Tolgoi (2009), is included in the electronic appendix.

reduction in the workforce, Inuit employees will be the last to be laid off from any specific job category" (7.1.3).

A very different approach was taken with the South African Broad-Based Black Economic Empowerment (BEE) Charter for the mining and minerals industry, which sought to redress the wrongs from decades of apartheid through clear and incentivized targets. BEE came about as a negotiation between business, government, and labor as a vehicle to allow the post-apartheid government to redress wrongs of the past while still maintaining the viability of South African businesses (Tangri and Southall 2008). Different charters were negotiated across different industries. BEE is probably best known for its linking of government contracts and mining licenses with a minimum required equity participation of black, or previously disenfranchised, South Africans. Yet the mining charter (South Africa 2016), included in the electronic appendix, includes very specific and ambitious employment targets that are required for firms to maintain their licenses. In undertaking a review of the previous charter—the first one was adopted in 2002—the Department of Mineral Resources noted that there was "a paucity of companies… that have fully embraced the spirit of the Mining Charter" and rather there was a "compliance-driven mode of implementation, designed only to protect the 'social license to operate'" (p. 8). That said, the charter requires licensees to have at least 50% Black South African representation on the board, 60% in senior management, 75% in middle management, 88% in junior management, and at least 2% of Black employees should be disabled (2.4). Minimum targets are commensurately set for Black females. There are similarly targets for investing in skills development. Penalties for non-compliance are set across the various categories of the charter, and are stipulated as follows: "Mining right holders who have not complied with the ownership, housing and living conditions and human resource development elements as well as those who fall between level 6 and 8 of the Mining Charter scorecard will be regarded as noncompliant with the provisions of the Charter and the MPRDA shall render the mining right holder in breach of the MPRDA and subject to sanctions provided for in the Act."

6.2 Contracting and linkages

As with any benefit stream detailed in an agreement, increasing the opportunities for local businesses can be thought of as undertaken by a "push" or a "pull" strategy. "Push" strategies incentivize or require inputs such as making opportunities known to local businesses. "Pull" strategies incentivize outcomes such as targets for local procurement. Both "push" and "pull" strategies can have hard or soft incentives attached to them. In a broad sense, "push" strategies are probably best if the channel of impact is well understood but organizational capabilities are not responsive; "pull" strategies are probably best of the channel of impact is not understood and experimentation is needed, as well as if organizational capacity is strong. With respect to monitoring and enforcement, one or the other may be easier to monitor and enforce, and the strategy that is easiest for the regulator or government agency to monitor and enforce may be the superior strategy, all things equal.

In the NWT's SEAs, there is a preference towards a detailed "push" strategy that outlines a number of steps that the company and government are to make in order to maximize opportunities for local businesses but with limited "pull" factors. Both the Gahcho and Diavik agreements stipulate at least 10 steps that the companies must take, including to "prepare a business opportunities forecast to identify foreseeable procurement requirements of the Gahcho Kué

Project, and provide it to Aboriginal businesses and NWT businesses annually" (5.4h Gahcho) or "prepare an annual business opportunities forecast which will identify the reasonably foreseeable procurement requirements of the Project" (AC9a Diavik); "prepare a business development strategy for Aboriginal Authorities" (5.4b Gahcho) or "work closely with northern communities to co-operatively achieve success in creating long-term business and employment opportunities" (AC9i Diavik); and "identify possible opportunities for joint ventures with NWT and Aboriginal businesses" (5.4d Gahcho) or "identify possible opportunities for joint ventures by Northern Businesses, and particularly by Aboriginal Businesses" (AC9s Diavik). The Diavik agreement goes into greater detail on how to count local content when a NWT business is acting in a joint venture, effectively marketing or reselling another service or good. However, the "pull" factors are comparatively weak. Though, in the Gahcho Kue agreement for example, there are numerical targets for what percentage of goods and services should be purchased from NWT businesses, the overall language is one of "[w]herever practical, and consistent with sound business practices" (5.1), "fair and open competition" (5.2.1), "using reasonable efforts" (5.2.3), and "subject to the availability of NWT Businesses with the required skills, experience, interest and competitive pricing" (5.2.4). Similarly, in the Diavik SEA, "[w]henever practicable, and consistent with sound procurement management" (AC1), "all reasonable steps, acting in good faith" (AC3), setting priorities across business categories but "subject to the ability of businesses in these priority groups to supply goods and services" (AC5).

The language in the NWT SEAs is stronger than in the model mining development agreement, as well as any of the example agreements in the MMDA project. The clause suggested for the model agreement is the comparatively weak "The Company shall, when purchasing goods and services required with respect to Mining Operations, give first preference, at comparable quality, delivery schedule and price, to goods produced in the State and services provided by the State citizens or businesses, subject to technical acceptability and availability of the relevant goods and services in the State" (MMDA 21.0). This and example agreements are included in the appendix. None of the example agreements have much to offer to the GNWT in terms of stronger or creative language.

The Qikiqtani IBA agreement in Nunavut looks more like a NWT SEA with respect to local contracting opportunities but has some interesting additions. A Business Capacity and Start-Up Fund, along with its manager, is funded by the company but run by the Inuit association (6.3). In addition to the annual listing of anticipated contracts that might be suitable for Inuit firms (similar to in the SEAs), the IBA requires that an executive committee "will review annually the list of contracts awarded by the Company in the previous Year to assess Inuit content in contracting" (6.6.2). With respect to actual contracts, there is language indicating that the company should work with a "Designated Baffin Inuit Firm" and otherwise a "Designated Inuit Firm" but there are a number of circumstances such as when a "contract calls for a contractor or supplier to be selected on the basis of specialized experience, or specialized technical or commercial capabilities" or when there is "an out-of-the-ordinary situation and [the company] does not have sufficient time to contract through a request for proposals or an invitational tender" (6.8.1). The net effect of the language suggests that the IBA also relies on a "push" strategy to generate local business opportunity.

A community development agreement attached to the Oyu Tolgoi project in Mongolia requires a procurement policy that is informed by community consultation as well as non-mining development. In the agreement (Mongolia Umnugobi 2015), the company is required to maintain a "South Gobi Supplier Development Procurement Policy" and to "seek discussion, feedback and suggestions for refinement of the" policy (Schedule 9, 2a). In addition to some of the usual goals for increasing capacity and setting targets, the agreement also implicitly recognizes that contracting opportunities in the mining sector expose the community to additional volatility. It requires the parties to the agreement "to support a local business and economic development (a LBED) program to develop non-mining economic opportunities in the Partner Communities" and to also get consultation for refinement of that program (Schedule 9, 2f).

A stronger "pull" strategy can be found in the South African BEE mining charter, which specifies hard targets for BEE contracting (clause 2.2). A mining right holder "must procure a minimum of 60% locally manufactured capital goods from BEE compliant manufacturing companies" of which a minimum percentage is reserved for small (BEE compliant) businesses. Similarly, targets are established of 70% (locally manufactured consumables), and 80% (services), with commensurate minimum percentages for small businesses. Companies are BEE compliant when designated minimum percentages of their equity ownership, workforce, contracting, etc. is of a previously disenfranchised group. If multinational suppliers are brought in, they "must annually contribute a minimum of 1% of annual turnover generated from local mining companies towards socioeconomic development of local communities, capacity building for BEE suppliers of goods (Capital and Consumable) and services into a Social Development Trust Fund established by the Minister for that purpose."

7 Future research and reflections

Since this paper has been a desk review of instruments and benefits used to generate socioeconomic benefits from natural resource projects, as well as a scan of different jurisdictions' approaches to the problem, there is limited scope to make immediate policy recommendations to the GNWT. Each case of course is unique, responding to unique challenges in different places. The study team has not researched the instruments and successes of the NWT SEAs and other policies and laws in any depth, nor consulted with policymakers and stakeholders in the NWT. The specific ingredient we are missing to think carefully about how the status quo of policies and law in the NWT could be improved upon is a thorough examination of what is going well and not well, and how stakeholders perceive the system. It would thus be premature for us to draw specific conclusions for the GNWT. However, we hope that the variety of content introduced in the paper can provide fodder for discussion and brainstorming among those familiar with the NWT experience.

Further studies could be designed to better estimate the causal impact of mining on communities in the NWT. Most of the research that has been referenced in this paper has been of the case-study variety, highlighting examples of resource governance or benefit creation, usually from a "success stories" perspective. Indeed, the SEAs themselves are one such example, having been highlighted as good practice for resolving an array of complex issues including intercultural cooperation (Couch 2002). The *Communities and Diamonds* and *SEA Implementation Report* put out by the GNWT do an admirable job of describing government programs and tracking

data in the communities. But what all of the existing literature is missing is an appreciation of the "counterfactual"—what would have happened in the absence of the mine. The best-practice papers describe a policy intervention and its roll-out. The tracking of different variables at the community levels get a good picture of life in NWT communities but cannot distinguish between changes induced by mining, by mitigation and positive programming associated with the mine, and finally by broad changes in society that have nothing to do with mining. To get a better sense of what needs to be done to improve the socioeconomic impact of mining on NWT residents, one would want to know what is the current impact. One potential accessible methodology is called a "difference in differences" approach that tracks indicators in mining communities as well as a sample of otherwise comparable communities from before exploration through production. One can then ascribe the changes observed in the mining communities *relative to the control communities* as plausibly driven by the mining. To the extent that there is variation in the degree of impact mitigation or positive job creation and contracting programs, the researcher can attempt to measure the effectiveness of the SEA and IBA tools.

It is hard to say with any certainty whether legislation or non-legislative policy instruments are most effective in generating development benefits. The best paper we found that summarized the policies of resource development and benefit sharing in developed countries, Söderholm and Svahn (2015), was recently published in the top journal in natural resource governance, *Resources Policy*. They observe that "[a]n important finding is that this is still an under-researched field, e.g., with little insights gained on the relative merits of different types of benefit-sharing mechanisms" and conclude that "much relevant research on benefit-sharing in the mining sector remains to be done. This concerns the relative merits of different types of mechanisms (e.g., employment and local procurement targets versus investment funds). More in-depth comparisons of voluntary versus state-led benefit-sharing mechanisms are also called for." In other words, there are simply too many jurisdictions trying too many things with different contexts, and not enough careful research, to draw definitive conclusions on which of these modalities and instruments, competently administered, would work best. On top of that, there has been movement in norms, especially with regard to social license, land claims, and court rulings. Thinking not only which instruments are best today, but which will be able to deal with changing norms and divergent bargaining capabilities of different communities, which are easiest to administrate and monitor, which can handle fluctuating resource prices, and which have the most legitimacy across stakeholders, is also necessary.

Reporting on SEA implementation could recognize the challenge of causality versus correlation. Given how hard it is to ascribe changes in socioeconomic outcome variables (like income, health, education) to the mitigation and benefits of SEAs, it may make sense to separate the reporting into two classes of outcomes. First, are the things that SEAs are designed to affect, principally from the company obligation: for example, percentage of workforce from priority groups, value of contracts to local businesses, existence of promised programs like training and business development. These variables would not be reported in isolation but against the targets in the agreements themselves. The goal here would not be to prove causation, but rather monitor compliance, even if there are a number of factors beyond the control of the company at play. For instance, you don't need to know why the temperature in your house on a sunny day is due to the heater or the sun, but you can still turn up the heat if you want it warmer. Second, are the things that mining in general might affect, like teen pregnancy (on the negative side) and earnings (on

the positive side). These variables could be reported against outcomes in similar "control" communities so as to give policymakers and other stakeholders a dynamic tool to monitor the plausible impact of resource communities in general, just as bank regulators monitor non-performing loans and other data that they might respond to.

Beyond measuring impact, there may be potential for a comprehensive NWT strategy for resource-led development. One thing that was clear from the research is that there are lots of moving parts in the governance of extractive activities, from various pieces of legislation to fiscal policy, environmental monitoring, and separate community-level agreements. Communities differ in their ability to bargain, special interests influence legislation, and different resources might have different cultures or even modalities for being governed. It is easy to end up with a jumbled and inconsistent approach to resource development. That's why most countries rich in resources do not elevate their prosperity and social outcomes in the way Norway has done. Another thing that was clear is that the stakes in the NWT for getting it right or wrong are enormous, given the outsized role that natural resources play in the economy. Having a coherent strategy with wide buy-in from the NWT's diverse population could create a "constitution" of sorts to inform the countless decisions involved in policy and legislative development and their implementation.

A comprehensive strategy with an accompanying consultative process could get a consistent approach to tackling the hard questions that might otherwise divide—or, maybe worse, ignore—the NWT's various constituents. Such a process would ask: what do we want to use resource wealth for? At what price are we prepared to sell? What are the interests of our different constituents and how can everyone be made better off? What does it mean to have a diversified economy in the north—what economic activities should we aim for, and expect to, host on our territory? Should we tie the happenstance of the location of resources to local prosperity or seek to equalize returns? How can we prepare for both new discoveries and stranded assets, windfall prices and low prices? What do we want our economy to look like after resources have been mined, and how does that interact with climate change?

This report has identified a number of good practices that the NWT might consider investigating further as part of a comprehensive strategy.

- A formal framework for organizing, negotiating, monitoring, and enforcing BAs between Aboriginal groups and project proponents with a predictable and consistent role of government and with transparent monitoring and censuring of publicly-accessible agreements
- Well-resourced and experienced representatives, like in Australia, to negotiate and follow up on behalf of individual First Nations
- A territory-wide approach to generating linkages and creating strong local companies
- A natural resource fund and accompanying fiscal rules to minimize volatility and save for the future
- More aggressive fiscal and royalty rates consistent with the quality of the resource bodies
- Harder targets in SEAs with consequences for failure to meet the targets, and more direct monitoring
- Multi-stakeholder bodies to improve best practices and learn across experiences
- Linking infrastructure investments of major projects with potential long-run plans around economic diversification

Appendix A1: Interviews

Interview with Dr. Tom Gunton
Professor and Director in the School of Resource and Environmental Management, Simon Fraser University
gunton@sfu.ca

Dr. Tom Gunton is a former senior policy advisor and deputy minister for the government of British Columbia. After eleven years in these positions, he spent twenty years working as a consultant for many First Nation groups and government. He has also had a long career in academic research, and is currently a professor and director of the Resource and Environmental Planning program at Simon Fraser University.

Eric Werker: In your experience, what types of instruments are used to generate socioeconomic benefits from natural resource projects in British Columbia?

Tom Gunton: It has evolved over time, so I'll take an historical perspective. In the 1960s and 70s, British Columbia mandated that value added industries be developed in conjunction with rapid resource development. At that time, there were mandated requirements to create other jobs in the area. For example, the Forestry Act required development of a local pulp and paper sector and local sawmills.

In the 1980s, BC's coal fields, the largest megaprojects to date, were developed. Special coordinating offices were created to manage project activities, including everything from new infrastructure to labour. The offices also helped coordinate labour training programs to encourage local hiring.

Starting in the 1990s, the provincial government started developing specific agreements with various entities. For example, BC hydro now signs impact benefit agreements with affected communities, and other entities have signed interim agreements and revenue sharing agreements with the government.

Today, government signs agreements with First Nations and local municipalities on a case-by-case basis to provide revenue to these communities. LNG development is a big focus in BC, so a new ministry, the Ministry of Natural Gas Development & Responsible for Housing was created to manage development of the industry, essentially fulfilling the same coordinating role as the project coordinating offices of the 80s.

E: Are the agreements required, or are certain details prescribed?

T: It is a combination. While agreements are not legislatively required, it is mandatory that government consults First Nations about resource development projects. This responsibility can't be delegated to companies or other entities. You could make the case that past court decisions have made agreements mandatory. The provincial government has policy for agreements, and some general protocols surrounding agreement making, including, for example, how to engage with First Nations.

E: What was not covered by this framework?

T: The province has not pursued major obligations, such as local hiring, and agreements between the province and company have no socioeconomic clauses. Those might be part of the First Nations - company agreements, which are confidential.

E: How is the distribution of socioeconomic benefits monitored and enforced?

T: There are many unique and confidential agreements, so it is hard to generalize. If the province is a signatory, it is their responsibility to deliver on commitments. In LNG agreements, for example, the province commits to tax rates and other concessions to create a certain regulatory and tax environment, and in forestry agreements with First Nations, there are provisions for revenue sharing with the government as well as a portion of timber set aside for First Nations' harvest. The province does not play a role in enforcing agreements that are outside of the public realm, but the BC court system can be used to resolve grievances.

E: In your opinion, is this system successful?

T: It's like the "Wild West": there is no overarching policy framework to guide companies, governments, or agreement making, so each agreement is done on a case-by-case basis. As it is now, a developer doesn't know whether they have to do a BA with the local community, or if that is the job of government. In the case of the Kinder Morgan pipeline, for example, the company developed and signed agreements, in the LNG sector both the provincial government and private companies have signed agreements with First Nations. In theory, this system means agreements can be tailored to each First Nation's circumstances and context, but most Nations don't have sufficient capacity to negotiate strong agreements, and the companies all take different approaches.

E: What should be done to improve the system?

T: I think the key is to develop an overall policy framework to figure out what needs to be done. As it is now, a pipeline developer doesn't know whether they have to do a BA with the local communities or if that is a job for the government. In the case of the Kinder Morgan pipeline, for example, the company did it, but the provincial government has done all the pipeline agreements in the LNG industry. It is a chaotic environment where no one knows what the rules are, so people are doing what's necessary to get the project through.

E: What will it take to get to a coordinated province-wide approach?

T: It might be hard to get a coordinated approach that everyone agrees to. Instead, the province may end up negotiating individual framework agreements with each First Nation. For example, the Tahltan Nation has an explicit resource policy that details how to proceed and what steps a developer needs to go through to get projects developed on their land. Another example is Coastal First Nations in BC, who have laid out protocols for government and companies who

want to work there. What we're seeing in BC is an emergence of explicit policy frameworks, but from the bottom up.

Interview with Jordon Kuschminder[21]
Founder and Consultant at Independent Social Performance
j.kuschminder@independentsp.com

Jordon Kuschminder has nearly a decade of consultation experience in the oil sands region of Alberta. He has worked for the Oil Sands Environmental Coalition, First Nations, and various oil and gas corporations. In his career, he has facilitated and negotiated socioeconomic agreements and impact agreements from both the community and the corporation sides of the table. He left Alberta in 2009, and since then has founded Independent Social Performance. He specializes in community relationships and social performance during projects' early stages.

Eric Werker: In your experience, how are socioeconomic benefits generated from natural resource development in the oil sands in Alberta?

Jordan Kuschminder: There are two broad categories of industrial benefits from companies: those that are legally required to go ahead with the project, and those that are not. In the second case, benefits are negotiated between the company and community. These benefits are negotiated in three stages.

The first stage is a relationship agreement, which is not always necessary but sets the tone of the relationship. These are especially important when the parties have an historically poor rapport. The agreement outlines past communications and disagreements, as well as the steps to take before the parties are ready to negotiate a BA. The relationship agreement is not about benefits (financial or otherwise), but about process as it often includes details like who funds the BA negotiation process, who will negotiate, the location of the meetings and the participation of technical experts. The second agreement stage is an IBA. In Alberta, IBAs are tied to impact assessments (environmental and socioeconomic), which are often conducted by company-hired consultants and can be six or more 3" binders worth of information. The third stage is if/when a party decides it wants to renegotiate the BA.

E: How are these agreements monitored and enforced?

J: When I was involved, it was mostly during the negotiation stages of the IBAs. The Provincial and Federal governments were often seen as those responsible for ensuring the regulatory commitments and conditions were met. On issues beyond the scope of a single operator, the Cumulative Environmental Management Association (CEMA) was established to bring industry, First Nations, NGOs, and Provincial and Federal Government ministries to the table to address cumulative effects and issues. Communities could occasionally successfully raise concerns at the working group table. Formally, at the time I was involved, there was little monitoring and enforcement as most projects were at some level of construction. The communities were aware

[21] This version contains minor revisions from the 04/23/2017 draft. They were made 08/31/2018.

of the need for monitoring and enforcement and felt that they had to do it themselves but also lacked capacity and funding.

E: In your opinion, has this framework been successful?

J: At the negotiating table, I saw environmental impacts being leveraged for socioeconomic gains. I don't fault negotiators for this, as these gains coincided with community priorities and it was hard to tell, at the time, whether communities were getting a fair deal. A major challenge in Alberta was that BAs were settled before project construction would start, so there was limited understanding of a project's impacts on the community and a level of uncertainty as to if these agreements could be modified in the future. At the same time, there was confusion over what the company was supposed to provide, versus the government (there was a simultaneous early-stage discussion with the provincial government during this time for there to be a Government-to-First-Nations benefits agreement). This led to instances where a company would not complete certain activities or provide certain benefits because they saw those tasks as being part of the government's job and not their own. Overall, I don't think this "Wild West" paradigm is the optimal approach.

There is also a huge imbalance of power. At the negotiation table, you would find six graduate level educated experts on one side of the table, all talking about environmental issues, and the Head of the Elders Committee and I, and maybe one consultant, on the other. Negotiations were nearly always held in Calgary or Edmonton, rarely ever in Fort McMurray or the community. The distance made it more difficult for community members to understand what was going on at the negotiation table physically removed the negotiation team from the actual land where impacts being discussed would ultimately occur.

Turnover, and the associated poor knowledge transfer, is another issue. There was poor institutional knowledge transfer within parties, which is the opposite of what a professional bureaucracy and regulatory system should produce. Social capital is built during negotiations, so a change at the table often posed a challenge.

E: What is it that corporations are looking for in these situations? And what are they trying to avoid?

J: The generic answer is clarity. Most companies do a rapid social baseline to understand local context. As a project advances, companies may arrange meetings with government to better understand regulations and legislation. The first question they always want answered is, "How do we get our proposed project approved?" As they gain more clarity, the focus often shifted toward understanding "What does consultation mean in Alberta?" and "Where do we set our bar for meaningful consultation?" The tenure acquisition process is often sensitive, as the company wants to keep their activities and interest in potential assets confidential.

Later, once the project is more public, companies aim to mitigate public opposition. They do everything in their power to get the prescribed level of approval from the groups with standing in the project, as conflict can be costly and time consuming. From a company perspective, negotiating and creating BAs with the communities was necessary to get the project through and

companies would become aware that some communities had the ability to threaten the approval process (because of their proximity, credibility, etc.) while others were not seen as able to significantly influence an approval decision. Industry sees BA benefits as tied to the stage of the project. However, communities often have higher expectations for benefits, because they see the development as an open pit mine. We, as a company, were often trying to manage expectations while providing benefits appropriate to the stage of the project.

E: Any suggestions for what should be done in the area?

J: The balance of power between communities and corporations needs to be addressed. Also, it is important to understand that each party has different accountability: governments are accountable to citizens, companies are accountable to shareholders, and community leaders are accountable to their members. Parties need to understand this framework to understand what motivates other parties.

One possible option for the area is to use a model BA. Standardizing the process could be beneficial, but negotiation generates knowledge and builds both relationship and capacity in the process, and that might be lost with a model agreement, so there is a tradeoff.

Interview with Byambajav Dalaibuyan
Honorary Research Fellow in the Centre for Social Responsibility Mining (CSRM), University of Queensland
b.dalaibuyan@uq.edu.au

Dr. Byambajav Dalaibuyan's Ph.D. thesis was on environmental movements in civil society in Mongolia, including conflict between communities and mining companies. Following that, he spent four years as a researcher at the CSRM, studying agreement making in Mongolia and the role of local governments, including the cooperation agreement signed in relation to Rio Tinto's Oyu Tolgoi mine. In September 2016, he moved back to Ulaanbaatar to consult on mining and community agreements.

Eric Werker: Can you provide some insight into the history of mining and socioeconomic benefits in Mongolia?

Byambajav Dalaibuyan: In 1990, Mongolia went through a "double transition:" it went from being a socialist nation with a planned economy to a free-market democracy. The nation's policy was to develop a private-sector based mining industry led by foreign investment. In 1997, the government introduced a new mining law that simplified the licensing process and, resultantly, promoted a surge in mining development. However, there were few structures to govern or monitor environmental impacts.

By the 2000s, the World Bank had highlighted that mine host communities in Mongolia were receiving limited socioeconomic benefits but many environmental impacts. At that time, grassroots protests and movements were growing in the country, claiming that mining companies ignored environmental management and impacts of mining projects.

In the mid 2000s, Mongolian NGOs started advocating for consultation and consent of local communities before resource development could occur. In 2005, they proposed an amendment to Mongolia's mineral law requiring local consultation and a cooperation agreement. Mongolian parliament amended the law, but with only one watered-down sentence: mining license owners should establish an agreement with local government regarding mine development, infrastructure related to mine development, job creation, and environmental management. The new legal clause had no follow-up procedures or guidelines.

In 2014, the government of Mongolia an almost 18-month process of developing a comprehensive, mandatory model agreement. However, the model agreement was narrowed as it went through the parliamentary process. It was accepted in 2016.

E: How has the governance structure of Mongolia shaped agreement making?

B: Mongolia has a unitary, centralized government. Subservient to the national government, there are Aimag governments at the regional level, Soum governments at the local level, and local community administrative units called Baks. Generally, agreements with the Aimag address concerns about broader economic issues, infrastructure development, and financial contributions, while agreements with the Soum are more concerned with environmental impact and jobs. The new model agreement states that big projects should make agreements with Aimag while smaller projects should negotiate with the Soum government. There is no requirement, and it is in fact legally challenging, to make agreements with local communities or their representatives. Not having agreements with local communities is not controversial because, unlike Canada or Australia, Mongolia is fairly ethnically homogenous.

E: How is the distribution of socioeconomic benefits monitored and enforced?

B: It depends. Some agreements, such as the Oyu Tolgoi agreement in South Gobi, have an independent review built into the agreement and mandatory public reports. Many other agreements do not have clear or comprehensive monitoring and review processes. Some have a few sentences about reviewing the agreement, but there is no clear procedure for how the review or reporting should be done.

E: Overall, would you say this system is successful?

B: I can't say for sure. The recent changes have been seen as controversial by some, but introducing a local agreement was a step forward, in my opinion. Implementation of that provision, however, has been very limited, as many officials and stakeholders don't understand its purpose. Agreement making between local government and the private sector is new to Mongolia, so more time is needed to understand the role of agreements in the mining industry local government.

Last year, a new administrative law was introduced that requires that any agreements that may affect the public interest to have a public hearing process. So, now, any agreement between the Soum government and mining company that concerns the public and has socioeconomic interest and environmental impacts is publically distributed. However, this requirement is new so not yet

well understood or implemented. Despite these changes, there are still issues in the system, including lack of clarity around what should be included in agreements, how agreements should be implemented, and how they should be governed.

E: How do you think the case of Mongolia relates to the state of resource governance in other parts of the world?

B: The development of BAs in Mongolia is an example of the mining industry's global trend towards sustainable development. The idea of BAs came from settler countries with Indigenous communities. Mongolia used the idea of BAs in a different context. So far, we have tried to integrate the idea into our legal political and economic systems. There have been problems, but I think the results will improve in coming years with greater integration of the concept into the systems and better understanding of a BA's purpose.

Appendix A2: MMDA employment and training of local citizens[22]

24.1 Minimum Employment Levels

In selecting employees to carry out its Mining Operations under this Agreement the Company shall give preference to qualified and competent the State executives, officers, engineers, consultants, technicians and skilled and semi-skilled labour.

24.2 Investment in Skills of Local Work Force

The Company shall develop and implement an annual training plan with the objectives to:

(a) Organize training of its employees to upgrade employees' skills and provide further practical experience;
(b) Train employees in line with the Company's short and mid-term human resource plans; and
(c) Upgrade selected employees' qualifications by enrolling them in studies inside or outside the State on a contractual basis to further upgrade their professional qualifications.

24.3 Labour Training and Capacity Enhancement

The Company shall develop and implement a comprehensive training program for the State personnel in the State and in other countries, if necessary, and carry out such program for training and education in order to meet the requirement for various classifications of skilled and semi-skilled full time employment for the Project.

24.4 Management Training and Capacity Enhancement

The Company shall develop and implement training for the State personnel in the State and in other countries, if necessary, in order to qualify them for technical, administrative and managerial positions, with the objectives to:

(a) Establishing and operating a vocational and training institute to provide vocational, technical and advanced training programs in the community;
(b) Furnishing on-the-job counterpart training, not only in the State but to the extent reasonably feasible in the offices of the Company in the State, in order that the beneficiaries may receive training in the overseas aspects of the Company's shipping, marketing and accounting functions;
(c) Providing scholarships for inhabitants of affected communities to pursue studies, including advanced studies in the the State or abroad; and
(d) Enhancing such training and educational opportunities as already exist in the vicinity of the local community.

*Some of the below examples are the full labor sections of actual agreements and may cover issues that are dealt with elsewhere in the MMDA, such as 19.2 Company Hiring Decisions and 16.0 Expatriates.

Example 1
ARTICLE 6 Employment and Training of Host Country Citizens

6.13

(a) [Company] shall employ [Country] personnel to the maximum extent practicable consistent with efficient operations, subject to the provisions of Law.

[22] MMDA 1.0, clause 24, URL: http://www.mmdaproject.org/?p=1658, accessed Mar 31, 2017.

(b) [Company] shall not be limited by the terms of this Agreement in the appointment and dismissal of personnel, which it may do subject to the Law. Nonetheless, due to the particular characteristics of the Project, the [Country] shall grant to [Company], its Affiliates, contractors and/or subcontractors, authorizations related to special work schedules that permit the execution of the Project in accordance with the international standards applicable to mining and the Laws.
(c) [Company] shall seek to provide direct participation by the citizens of [Country] in the Project through the inclusion of [Country] nationals in the management of the Project. [Company] shall train [Country] nationals to occupy responsible positions in connection with the Project.
(d) [Company] shall conduct a comprehensive training program for [Country] personnel in the [Country] and in other countries, if necessary, and carry out such program for training and education in order to meet the requirement for various classifications of full time employment for its operations in [Country]. [Company] shall also conduct a program to acquaint all expatriate employees and contractors with the laws and customs of [Country].
(e) [Company] and its contractors may bring into [Country] such expatriate individuals and their dependents as in [Company]'s judgment are required to carry out the operations efficiently; provided however, that [Country] may make known to [Company], and [Company] shall duly observe, objections based on grounds of national security or foreign policy of [Country]. [Company] shall make arrangements for the acquisition of all necessary Permits (including entry and exit permits, work permits, visas and such other permits as may be required). [Company] will be allowed to provide specific benefits internationally recognized as expatriate allowances related to offshore assignments.

Example 2

8. Chapter Eight: Labor Relations, Employment and Training

8.1 The Investor and its Affiliates shall comply with the provisions of relevant labor, employment and social security laws and regulations of [Country]. In implementing its remuneration policies, the Investor will ensure fair wages and equal remuneration for work of equal value.
8.2 During the term of this Agreement, the Investor and its Affiliates and the Government will cooperate together to ensure that there is a suitably qualified Project Workforce available to meet the timeframe of the Project.
8.3 A citizen of [Country], foreign nationals, and people without citizenship, employed by the Investor under a contract must be covered by social insurance as required by law.
8.4 In accordance with Article [x] of the Minerals Law, not less than 90% (ninety percent) of the Investor's employees will be citizens of [Country].
8.5 In accordance with Government Resolution Number [x] dated [date] making amendment to the Annexure of Resolution Number [x] of [year] on establishing the quota of work force and professionals to be received from abroad in [year] made under the authority of the Law on Sending Labor Force Abroad and Receiving Labor Force and Specialists from Abroad, the Investor will utilise best efforts to work with entities that contract with the Investor to provide labor to the Project to ensure that:

8.5.1. for construction work during the Construction Period and Expansion Periods, not less than 60% (sixty percent) of the entities' employees will be citizens of [Country]; and
8.5.2. for mining and mining-related work, not less than 75% (seventy five percent) of the entities' employees will be citizens of [Country].

8.6 If the Investor provides employment and income earning works and services to a number of foreign nationals within the specified percentage set forth in Clause 8.4, it shall pay a monthly workplace charge of twice the minimum monthly wage established by the Government for each foreign national to the Employment Promotion Fund.
8.7 If the Investor employs more foreign nationals than the specified percentage set forth in Clause 8.4, the Investor shall pay a monthly fee of 10 (ten) times the minimum monthly salary for each foreign national in excess of the specified percentage.
8.8 After the payment referred to in Clause 8.7 has been submitted to the budget of the relevant [Province] or district under Article [x] of the Minerals Law a portion of this fee shall be allocated to be spent on the OT Training Strategy and Plan specified in Clause 8.13 to train citizens of [Country] to upgrade their skills or learn new skills in accordance with the rules established by the [Government Body] of the relevant [Province] or district.
8.9 Breaches of the labor quotas set out in Clauses 8.4 and 8.5 shall not constitute a breach of this Agreement and Clause 10.7 shall not apply.
8.10 The Government shall provide support requested by the Investor to facilitate and expedite the granting of all Permits necessary for the engagement of such foreign nationals of the Project Workforce.
8.11 The Investor will use its best endeavours to maximize the participation on a competitive basis of qualified citizens of [Country] as engineers for the Project and within 5 (five) years of the Commencement of Production the Investor must use its best endeavours to ensure that no fewer than 50% (fifty percent) of its employed engineers, and within 10 (ten) years of the Commencement of Production that no fewer than 70% (seventy percent) of its employed engineers, shall be citizens of [Country].
8.12 Within 90 (ninety) days after the Effective Date, the Investor will submit to the Government for public release a detailed and comprehensive 5 (five) year [Country] nationals training strategy and plan for the Project ("Training Strategy and Plan").
8.13 The Training Strategy and Plan will focus on training skilled workers for the Project and training them for professions, and improving their vocational and professional skills, relevant to the Project and mining in [Country] generally and specifically in [region].
8.14 The Investor shall, in accordance with its annual training plan:

8.14.1. organize training of its employees at its Core Operations to upgrade employees' skills and provide further practical experience;
8.14.2. train employees in line with the Investor's short and mid-term human resource plans; and
8.14.3. upgrade selected employees' qualifications by enrolling them in studies inside or outside [Country] on a contractual basis to further upgrade their professional qualifications.

8.15 The Investor shall establish a graduate scholarship program for assisting in the education of [Country] nationals in mining related disciplines, with an emphasis on engineering related disciplines, within which scholarships over a 6 (six) year period from the Effective Date will be granted to 120 (one hundred and twenty) students studying at [Country] universities and to 30 (thirty) [Country] students studying at international universities. The scholarship program will cover tuition fees and living expenses. The Investor shall provide the students holding scholarships with an opportunity to participate in work experience and training at the Project or at a suitable international mining operation.
8.16 The Investor shall establish and maintain health and safety systems and procedures at the Project to ensure a safe workplace which complies with the Law on Labor Safety and Health and

all applicable health and safety laws and regulations in [Country] while complying with all requirements under the Labor Law, including in respect of collective bargaining.
8.17 To enable all employees on the Project to be trained to international standards, the Government shall render all support for the adoption, within 6 (six) months of the Effective Date, of an international mining education and training curricula at selected domestic universities and vocational training institutions.

Example 3
ARTICLE 6. Training and Human Resources Management

6.1 The Company will comply with the Training and Human Resources Management Programme applicable from time to time.
6.2 The Company may, with the consent of [Government] (which consent shall not be unreasonably withheld), amend or alter the Training and Human Resources Management Programme, with a view to securing the maximum training of and benefits to [Country] citizens from the Facilities. If the Company is unable to comply with the Training and Human Resources Management Programme due to circumstances beyond its control, then such non-compliance shall not constitute a default under this Clause 6 and the Company may give notice of alternative or revised plans to the part of the Training and Human Resources Management Programme affected.
6.3 Should the Company give notice pursuant to Clause 6.2, [Government] shall within thirty (30) days either:

(a) approve those alternative or revised plans; or
(b) meet with the Company to discuss and agree upon the alternative or revised plans.

6.4 If the discussions under Clause 6.3 do not lead to [Government]'s approval of alternative or revised plans and the Company considers [Government]'s decision to be unreasonable, the Company may elect to refer the reasonableness of [Government]'s decision to a Sole Expert in accordance with Clause 19.
6.5 If the Sole Expert determines that [Government]'s decision is not unreasonable, he shall identify to the Company the changes to the Training and Human Resources Management Programme as will be necessary to bring such programme into compliance with [Government]'s requirements in this regard and the Company shall elect whether to amend the programme accordingly or to retain the original programme. However, if the Sole Expert determines that [Government]'s decision is unreasonable, he shall declare his determination to both Parties and the proposed amendment or alteration to the Training and Human Resources Management Programme shall be deemed approved.
6.6 The Company shall not, save as provided below, be restricted in its employment, selection, assignment or discharge of personnel, provided, however, that the employment and the terms and conditions of such employment and the discharge or disciplining of personnel within [Country] shall be carried out in compliance with (i) the laws and regulations of [Country] which are, from time to time, of general application, (ii) the Collective Agreement and (iii) the terms of individual employment contracts from time to time.
6.7 The Company will, in its recruitment, selection, promotion and assignment of personnel not discriminate against comparably trained, qualified and experienced [Country] citizens.
6.8 The Company acknowledges [Government]'s policy to attract qualified [Country] citizens working overseas back to employment within the [Country] mining and metallurgical industry. In order to facilitate the fulfillment of this policy, the Company will take all reasonable efforts in

its recruitment and employment of employees in professional, managerial, engineering and scientific grades to bring to the attention of such qualified [Country] citizens, positions of employment available within the Company (including, but not limited to the advertising of positions in international press and trade journals likely to have circulation amongst suitably qualified potential employees).
6.9 The Company will honour and perform the terms and conditions of the contracts of employment of the Transferring Employees save that such contracts may be varied provided that any variance shall be made in compliance with all aspects of [Country] law and regulations and the terms of the relevant Collective Agreement.
6.10 The Company will recognise, for collective bargaining purposes, the trade union currently representing the Transferring Employees.
6.11 The Company adopts the Redundancy Terms currently applicable to Transferring Employees (and agrees that years previously worked for [Company] shall form part of the accrued service of such Transferring Employees when calculating any subsequent redundancy payment to which they may become entitled upon being terminated by the Company) and agrees that no amendment or variation will be proposed or made to the Redundancy Terms which would adversely affect the Transferring Employees (or any of them) if such Redundancy Terms were to be implemented without the Transferring Employees' consent.
6.12 Notwithstanding the provisions of this Clause 6, the Company (and its contractors or subcontractors) may bring into and retain in [Country] such non-[Country] citizens as, in the reasonable judgment of the Company's management, are required for the efficient and successful operation of the Facilities and, at the Company's request (which shall be accompanied by such information concerning the education, experience and other qualifications of the personnel concerned as may be required by regulations of [Country] of general application in [Country] from time to time) [Government] shall cause all necessary permits (including entry and exit permits, work permits, visas and such other permits or permissions as may be requested) to be issued to such persons and their dependents without undue delay and without hampering the continuous and efficient operation of the Facilities. Provided that [Government] shall be under no such obligation to issue the permits aforesaid to any non-[Country] citizen who is disqualified from entry by reason of previous criminal convictions, health regulations and like restrictions set out in immigration regulations of general application in [Country] from time to time.
6.13 A committee shall be formed, comprising of one member from each of the Ministry, the Company, Ministry of Labour and the local government, which shall have no powers to bind the Company but shall monitor the implementation of the Training and Human Resources Management Programme.
6.14 Such committee shall operate during the term of this Agreement and the Company shall furnish it with reports every six (6) months outlining the progress of the Training and Human Resources Management Programme, problems encountered, positions filled and the number of local people employed.

Example 4
ARTICLE 25. Employment of Host Country Personnel
25.1 During the term of this Agreement, [Company], and/or the Operator, and their Affiliates and subcontractors agree to:

a. Employ [Country] personnel to the extent they have equal qualifications.
b. Prepare and establish a comprehensive program for training [Country] personnel,

c. Ensure the housing of workers employed on site in conditions of health and safety conforming to existing or future regulations.
d. Respect the existing and future sanitary laws and regulations in force from time to time.
e. Respect the existing and future labor laws and regulations relating specifically to conditions of work, minimum wages, the prevention and remedying of work-related accidents and occupational illness, as well as relating to professional associations and trade unions.

Example 5
Section XIII
Employment and Training of (Country) Personnel

13.1. The (Contractor) agrees to employ, to the extent possible, qualified (Country) personnel in all types of mining operations for which they are qualified; and after Commercial Production commences shall, in consultation and with consent of the (Government), prepare and undertake an extensive training programme suitable to (Country) nationals in all levels of employment. The objective of said programme shall be to reach within the timetable set forth below the following targets:
[table]
13.2. Cost and expenses of training such (Country) personnel and the (Contractor's) own employees shall be included in the Operating Expenses.
13.3. The (Contractor) shall not discriminate on the basis of gender and shall respect the right of women workers to participate in policy and decision-making processes affecting their rights and benefits.

Appendix A3: MMDA use of local goods and services[23]

The Company shall, when purchasing goods and services required with respect to Mining Operations, give first preference, at comparable quality, delivery schedule and price, to goods produced in the State and services provided by the State citizens or businesses, subject to technical acceptability and availability of the relevant goods and services in the State.

*See additional examples at 5.1 Customs Duties.

Example 1

4. Procurement

4.1 The Company shall, on a periodic basis, identify and invite registration of businesses in [Country] (particularly in the [Region] and with particular emphasis on businesses directly or indirectly majority owned by [Country] citizens) which are capable of supplying materials, equipment and services to the Company.
4.2 Where materials, equipment and services required for the implementation of the Scheduled Programmes are manufactured or substantially assembled (or in the case of services, are procurable) within [Country] from a business or businesses registered pursuant to Clause 4.1, such business(es) shall have the opportunity to tender and if a tender submission from any such business:

(i) meets the specifications of the invitation to tender;
(ii) is competitive in price with international sources; and
(iii) meets the quality standards and delivery requirements of the Company;
then the Company shall not discriminate against such business(es) in its award of such tender.

4.3 In assessing the tenders from local contractors and suppliers, the Company will consider the extra costs it would incur if it was to grant the contract to a foreign supplier or contractor. These extra costs shall include, but are not necessarily restricted to, wharfage costs, shipping costs, stevedoring costs, customs clearance costs, customs duties, and demurrage charges.
4.4 A Committee shall be formed, comprised of one member from each of the Ministry, the local government, the Company and a representative of the Ministry of Commerce, Trade & Industry, which shall monitor the supply and procurement of goods and services to the Facilities.
4.5 The Committee shall operate during the term of this Agreement and the Company shall furnish it with reports every six (6) months comprising the following information:

(i) a list of successful tenderers which shall include the items supplied, residence of tenderers and the reasons for awarding the tender; and
(ii) a list of unsuccessful locally based tenderers which shall include reasons for not awarding the tender.

5. Local Business Development

5.1 The Company shall:

(a) comply with the Local Business Development Programme so as to encourage and assist the establishment of businesses within [Country] (particularly in the [Region] and with a particular emphasis on businesses directly or indirectly majority owned by [Country] citizens) to supply materials, equipment and services to the Company, provided that the Company shall not be

[23] MMDA 1.0, clause 21, URL: http://www.mmdaproject.org/?p=1652, accessed Mar 31, 2017.

obliged to grant or lend money to any person or provide technical or other support to them;
(b) conduct an annual review of progress being made on the implementation of the Local Business Development Programme and make such variations to it as required by changing circumstances; and
(c) designate a responsible person experienced in setting up and managing small business enterprises:

(i) to assist [Country] citizens who wish to or have set up businesses to offer services to the Company and the Facilities;
(ii) to assist in the implementation of the Local Business Development Programme and variations thereof;
(iii) to liaise with the appropriate officials from [Government]; and
(iv) to compile and maintain the register referred to in Clause 4.1.

5.2 The Company may, with the consent of [Government] (which consent shall not be unreasonably withheld), amend or alter the Local Business Development Programme, with a view to securing the maximum benefit to the establishment of [Country] businesses from the Facilities. If the Company is unable to comply with some or all of the Local Business Development Programme as a result of circumstances or events beyond its control then such non-compliance shall not constitute a default under this Clause 5 and the Company may give notice of alternative or revised plans for the Local Business Development Programme.
5.3 Should the Company give notice pursuant to Clause 5.2, [Government] shall within thirty days (30) either:

(a) approve those alternative or revised plans; or
(b) meet with the Company to discuss and agree upon the alternative or revised plans.

5.4 If the discussions under Clause 5.3 do not lead to [Government]'s approval of alternative or revised plans and the Company considers [Government]'s decision to be unreasonable, the Company may elect to refer the reasonableness of [Government]'s decision to a Sole Expert in accordance with Clause 19.
5.5 If the Sole Expert determines that [Government]'s decision is not unreasonable, he shall identify to the Company such changes to the Local Business Development Programme as will be necessary to bring such programme into compliance with [Government]'s requirements in this regard and the Company shall elect whether to amend the programme accordingly or to retain the original programme. However, if the Sole Expert determines that [Government]'s decision is unreasonable, he shall declare his determination to both Parties and the proposed amendment or alteration to the Local Business Development Programme shall be deemed approved.

Example 2
9.4 Preferences
Notwithstanding its right to contract with any third party and to the extent allowed by applicable Laws, Licensee shall

(i) give preference to equipment, materials, services, and finished products manufactured in [name of host country], provided they are competitive in economic and technical terms, price, operational parameters, and delivery terms; and
(ii) in conducting its Exploration Activities and Mining Activities, give priority to the services of the indigenous people of [name of host country] or businesses owned by them, including using air, water, rail, and other transport services, provided such services are competitive in price and

in efficiency and quality for performing activities of a similar nature and within similar timeframes. Such preferences, however, shall be subject to such indigenous people or businesses providing the same indemnifications and insurances and assuming the same liabilities as those in Licensee's standard contracts with other contractors that are similar in nature.

8 References

Alberta Energy Regulator (AER). (n.d.). Environmental Assessment. Retrieved from: https://www.aer.ca/applications-and-notices/environmental-assessment

Alaska Minerals Commission. (2013). Report of the 2013 Alaska Minerals Commission. *The Alaska Department of Commerce Community and Economic Development, USA.*

Bankes, N. (2007). A Policy Review of the Mackenzie Gas Project Socio-Economic Agreement. *Yellowknife: Alternatives North.*

Basu, P., Hicks, J., Krivokapic-Skoko, B. & Sherley, C. (2015). Mining operations and corporate social responsibility: A case study of a large gold mine in regional Australia. *The extractive industries and society, 2*, 531-539.

Bauer, A., & Toledano, P. (2014). Managing the public trust: How to make natural resource funds work for citizens.

BC Mine Information. (n.d.). Key statutes and regulations for mining in British Columbia. *Ministry of Energy and Mines, Ministry of Environment and Environmental Assessment Office.* Retrieved from: http://mines.nrs.gov.bc.ca/legislation

BC Government. (2016). Petroleum and natural gas royalties. *Government of British Columbia.* Retrieved from: http://www2.gov.bc.ca/gov/content/industry/natural-gas-oil/oil-gas-royalties

BC MCSCD (BC Ministry of Community, Sport and Cultural Development). (2014). Socio-Economic Effects Management Plan (SEEMP) Development, Approval and Implementation Framework. 5pp. https://a100.gov.bc.ca/appsdata/epic/documents/p396/d38282/1416936833346_l0pwJ01QhLtT3GnJwRzm12YHRq5BWhTshGjgHWg3xz3KJ7Qs770T!-231679769!1416934832825.pdf

BHP Billiton. (2016). BHP Billiton and IFC collaborate on new Forests Bond. Retrieved from http://www.bhpbilliton.com/media-and-insights/news-releases/2016/10/bhp-billiton-and-ifc-collaborate-on-new-forests-bond.

Brower, A., Reedy, C. & Yelin-Kefer, J. (2016). Is collaboration good for the environment? Or, what's wrong with the Land and Water Forum?. *New Zealand Ecological Society, 40(3)*, 390–397.

Browne, M. W. & Robertson, K. (2009). Benefit sharing agreements in British Columbia: A guide for First Nations, businesses, and governments. Victoria, BC: Woodward & Company. Retrieved from https://www.for.gov.bc.ca/tasb/slrp/lrmp/nanaimo/cencoast/ebmwg_docs/hw03b_benefit_sharing_final_report.pdf

Bruckner, K. D. (2015). Community Development Agreements in Mining Projects. *Denv. J. Int'l L. & Pol'y*, *44*, 413.

Buckland, J. and O'Gorman, M. (2014). Re-envisioning the North? A Critical Socio-Economic Assessment of Manitoba Hydro's 2012/13 to 2047/48 Preferred Development Plan. *Consumers Association of Canada- Manitoba Brancj (Winnipeg).* Submissiong to public Utilities Board, 1-87.

Budina, M. N., Kinda, M. T., Schaechter, M. A., & Weber, A. (2012). *Fiscal rules at a glance: Country details from a new dataset* (No. 12-273). International Monetary Fund.

Caine, K. J., & Krogman, N. (2010). Powerful or just plain power-full? A power analysis of impact and benefit agreements in Canada's north. *Organization & Environment*, *23*(1), 76-98.

Canadian Association of Petroleum Producers (CAPP). (2006). Developing effective working relationships with Aboriginal Communities. *CAPP Annual Report*

Canadian Centre for Community Renewal (CCCR). (2009). *Aboriginal mining guide: How to negotiate lasting benefits for your community*. Port Alberni, BC, Canada: M. Lewis and S. Brocklehurst.

Caripis, L. (2013). Victorian law change abandons native forests to loggers. *The Conversation*. Retrieved from http://theconversation.com/victorian-law-change-abandons-native-forests-to-loggers-14113.

Cheshire, L., Everingham, J. & Lawrence, G. (2014). Governing the impacts of mining and the impacts of mining governance: Challenges for rural and regional local governments in Australia. *Journal of Rural Studies, 36*, 330-339.

Columbia Center on Sustainable Investment (CCSI). (2014). *A framework approach to shared use of mining-related infrastructure.* New York, USA: P. Toledane, S. Thomashausen, N. Maennling, & A. Shah.

Cullen, A., McGee, G., Gunton, T. and Day, J. (2010). Collaborative planning in complex stakeholder environments: An evaluation of a two-tier collaborative planning model. *Society and Natural Resources, 23(4)*, 332-350.

Deegan, C. & Shelly, M. (2014). Corporate social responsibilities: Alternative perspectives about the need to legislate. *Journal of Business Ethics, 121, 499-526.*

Deyholos, R. and Cuschieri, D. (2013) Canada. *Torys LLP: European lawyer reference series*. Retrieved from: http://www.torys.com/Publications/Publications/AR2013-1.pdf

Dreyer, D. (2004). Impact and benefits agreements: Do the Ross River Dena benefit from mineral projects?. (Unpublished Master's thesis). University of Northern British Columbia, Prince George, BC.

Dupuy, K. (2014). Community development requirements in mining laws. *The Extractive Industries and Society, 1*, 200-215.

Ericsson, M., & Löf, F. (2011). Overview of State Ownership in the Global Minerals Industry; Long Term Trends and Future. *Extractive Industries for Development Series# 20, World Bank, May 2011*.

Environmental Assessment Office (EAO). (n.d.). The Environmental Assessment Office: Genereal Information. *Government of British Columbia*. Retrieved from: http://www.eao.gov.bc.ca/ea_process.html

Exxon Mobil Liberia. (2013). "Restated and amended production sharing contract between the Republic of Liberia by and through National Oil Company of Liberia and Exxonmobil Exploration and Production Limited and Canadian Overseas Petroleum Limited."

EY. (2014a). Botswana: Mining and metals tax guide March 2014. Retrieved from: www.ey.com/miningmetals

EY. (2014b). United Kingdom: Mining and metals tax guide September 2014. Retrieved from: www.ey.com/miningmetals

EY. (2016). Global oil and gas tax guides. Retrieved from: http://www.ey.com/globaltaxguides.

Ferguson, G. (2015). From spaces marginalization to places of participation: Indenous articulations of the social economy in the Bolivian highlands. (Unpublished Master's Thesis). Simon Fraser University, Burnaby, BC.

Fidler, C. & Hitch, M. (2007). Impact and Benefit Agreements: a contentious issue for environmental and Aboriginal justice. *Environments Journal, 35(2).*

Fischer, C. (2007). International experience with benefit-sharing instruments for extractive resources. *Resources for the Future, Washington DC*.

Fluker, S. (2011). Public Participation at the Alberta Energy Resources Conservation Board. *Resources, 111*, 1-8.

Frame, T., Gunton, T. & Day, J.C. (2003). The role of collaboration in environmental management. *Journal of Environmental Planning and Management, 47(1),* 59-82.

Fraser Institute (2013). *Reforming Alberta's heritage fund: Lessons from Alaska and Norway.* Canada: R. Murphy and J. Clemens. Retrieved from: https://www.fraserinstitute.org/sites/default/files/reforming-albertas-heritage-fund.pdf

Fraser Institute (2014). A real game changer: an analysis of the Supreme Court of Canada *Tsilhqot'in Nation v. British Columbia* Decision. *Fraser Research Bulletin.* Canada: R. Bains. Retrieved from: https://www.fraserinstitute.org/sites/default/files/real-game-changer-supreme-court-of-canada-tsilhqotin-decision.pdf

Freebairn, J. (2012). Mining booms and government budgets. *The Australian Journal of Agricultural and Resource Economics, 56*, 201-221.

Galbraith, L. (2005). *Understanding the need for supraregulatory agreements in environmental assessment: An evaluation from the Northwest Territories, Canada* (Doctoral dissertation, Simon Fraser University).

Gibson, R. B. (2006). Sustainability assessment and conflict resolution: Reaching agreement to proceed with the Voisey's Bay nickel mine. *Journal of Cleaner Production*, *14*(3), 334-348.

Gibson, R. (2012). In full retreat: the Canadian government's new environmental assessment law undoes decades of progress. *Impact Assessment and Project Appraisal, 30(3)*, 179-188.

Gogal, S., Riegert, R., & Jamieson, J. (2006). Aboriginal Impact and Benefit Agreements: Practical Considerations. Alberta Law Review, 43(1), 129-157.

Gordon Foundation (2010). IBA community toolkit: Negotiation and implementation of impact and benefit agreements. Toronto, ON: Gibson, G. & O'Faircheallaigh, C. Retrieved from http://gordonfoundation.ca/publication/669.

Government of Saskatchewan. (2015). Northern Benefits Summary: Saskatchewan Mine Surface Lease Agreements. *Government of Saskatchewan.* Retrieved from: http://publications.gov.sk.ca/documents/313/947272015%20Northern%20Benefits%20Summary%20Mine%20Surface%20Lease%20Agreement%20Final%20June%202016.pdf

Government of Saskatchewan. (n.d.). Uranium Mining in Saskatchewan. *Government of Saskatchewan*. Retrieved from: https://www.saskatchewan.ca/business/first-nations-metis-and-northern-community-businesses/economic-development/mining-development-benefits-and-agreements/uranium-mining-in-saskatchewan

Government of the NWT (GNWT). (2014). Communities and Diamonds - 2014 Annual Report of the Government of the Northwest Territories under the Ekati, Diavik and Snap Lake Socio-Economic Agreements. *Government of the Northwest Territories*. Table Document 28-18(2)

Government of the NWT (GNWT). (2015). Communities and Diamonds - 2015 Annual Report of the Government of the Northwest Territories under the Ekati, Diavik and Snap Lake Socio-Economic Agreements. *Government of the Northwest Territories*. Table Document 28-18(2)

Government of the NWT (GNWT). (2015). Ekati, Diavik and Snap Lake Socio-Economic Agreements Implementation Report. *Government of the Northwest Territories: Industry , Tourism and Investment; Education, Culture and Employment; Health and Social Services; Justice; NWT Housing Corporation*. Table Document 28-18(2)

Government of the NWT (GNWT) Aboriginal Affairs and Intergovernmental Relations. (n.d.). Concluding and Implementing Land Claim and Self Government Agreements- Inuvialuit. *Government of Northwest Territories.* Retrieved from: http://www.daair.gov.nt.ca/en/priorities/concluding-and-implementing-land-claim-and-self-government-agreements/inuvialuit

Government of the NWT (GNWT) Aboriginal Affairs and Intergovernmental Relations. (n.d.). Concluding and Implementing Land Claim and Self-Government Agreements. GNWT *Aboriginal Affairs and Intergovernmental Relations.*

Government of the NWT (GNWT) Aboriginal Affairs and Intergovernmental Relations. (n.d.). Inuvialuit. Retrieved from: http://www.daair.gov.nt.ca/en/priorities/concluding-and-implementing-land-claim-and-self-government-agreements/inuvialuit

Government of the NWT (GNWT) Aboriginal Affairs and Intergovernmental Relations. (n.d.). Gwich'in. Retrieved from: http://www.daair.gov.nt.ca/en/priorities/conclure-et-mettre-en-oeuvre-les-accords-sur-les-droits-ancestraux/gwichin

Government of the NWT (GNWT) Aboriginal Affairs and Intergovernmental Relations. (n.d.). Tlicho. Retrieved from: http://www.daair.gov.nt.ca/en/priorities/concluding-and-implementing-land-claim-and-self-government-agreements/tlicho

Gogal, S., Reigert, R., & Jamieson, J. (2005). Aboriginal impact and benefit agreements: Practical considerations. *Alta. L. Rev.*, *43*, 129.

Gordon Foundation (2010). IBA community toolkit: Negotiation and implementation of impact and benefit agreements. Toronto, ON: Gibson, G. & O'Faircheallaigh, C. Retrieved from http://gordonfoundation.ca/publication/669

Government of Canada. (2011). Status of remote/off-grid communities in Canada. Aboriginal Affairs and Northern Development Canada and Natural Resources Canada. Retrieved from: https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/canmetenergy/files/pubs/2013-118_en.pdf.

Government of Canada. (2013a). Benefits Plan Guidelines for the North. Indigenous and Northern Affairs Canada. Retrieved from: https://www.aadnc-aandc.gc.ca/eng/1321288048056/1321288239801

Government of Canada. (2013b) *Aboriginal Peoples' Participation in Canada's Resource Economy*. Canada's Economic Action Plan. Retrieved from: http://actionplan.gc.ca/en/backgrounder/r2d-dr2/aboriginal-peoples-participation- canadas-resource.

Government of Canada. (2013c). *Overview.* Canada's Economic Action Plan. Developing the Mining and Mineral Industry in the North. Retrieved from: http://actionplan.gc.ca/en/page/r2d-dr2/overview.

Gunton, T. (2003). Natural resources and regional development: An assessment of dependency and comparative advantage paradigms. Economic Geography, 79(1), 67-94. doi:10.1111/j.1944-8287.2003.tb00202.x

Gunton, T. & Day, J. (2003). Theory and practices of collaborative planning in resource and environmental management. *Environments, 31(2)*, 5-21.

Harvey, B. & Nish, S. (2005). Rio Tinto and Indigenous Community Agreement Making in Australia. *Journal of Energy & Natural Resource Law, 23*(4), 499-510.

Heum, P. (2008). Local Content Development: Experiences from oil and gas activities in Norway.

Hibernia South Extension Benefits Agreement. (2010). http://www.nr.gov.nl.ca/nr/energy/petroleum/offshore/projects/hse_benefits_agreement.pdf

Hebron Benefits Agreement. (2008). http://www.hebronproject.com/docs/benefits/finalexecutedbenefits.pdf

Heisler, K. & Markey, S. (2014). Navigating jurisdiction: local and regional strategies to access economic benefits from mineral development. *The Canadian Geographer, 58*(4), 457-468.

Humphreys, M. & Sandbu, M. (2007). The political economy of natural resource funds. In J. Stiglitz & S. Spiegel (Eds.), *Escaping the Resource Curse*. New York, USA: Columbia University Press.

Hunter, T. (2014). Law and policy frameworks for local content in the development of petroleum resources: Norwegian and Australian perspectives on cross-sectoral linkages and economic diversification. *Mineral Economics, 27*, 115-126.

IBA Research Network. (n.d.). List of known IBAs. Retrieved from: http://www.impactandbenefit.com/IBA_Database_List/

I'll see you in court: Indigenous groups are suing logger, miners and pipeline-builders. (2016). *The Economist*. Retrived from: http://www.economist.com/news/americas/21690096-indigenous-groups-are-suing-loggers-miners-and-pipeline-builders-ill-see-you-court

Indigenous Support Services & ACIL Consulting. (2001). Agreements between Mining Companies and Indigenous Communities. Prahran, VIC: Australian Minerals and Energy Environment Foundation. Retrieved from https://www.icmm.com/document/1131

International Council on Mining and Metals. (2015). *Indigenous peoples and mining: Good practices guide* (2nd ed.). London, United Kingdom: Rogers, P., Brereton, D., Ali, S., & Schleger, A.

International Institute for Environment and Development (IIED). (2012). *MMSD+10: Reflecting on a decade*. IIED Discussion Paper. London, United Kingdom: Buxton, A.

International Finance Corporation (IFC). (2016). The IFC Oil, Gas, and Mining Linkages Program. Washington, D.C., USA. Retrieved from: https://commdev.org/userfiles/OGM_Factsheet.pdf

International Working Group of Sovereign Wealth Funds (IWG). (2008). Sovereign wealth funds: Generally accepted principles and practices, "Santiago Principles".

Johnston, D. (2007). How to evaluate the fiscal terms of an oil contract. In J. Stiglitz & S. Spiegel (Eds.), *Escaping the Resource Curse*. New York, USA: Columbia University Press.

Joint Keeyask Development Agreement. (2009). Retrieved from: https://www.hydro.mb.ca/projects/keeyask/pdf/JKDA_090529.pdf

Kaufmann, F. & Simons-Kaufmann, S. (2016). Chapter 2 Corporate Social Responsibility in Mozambique. In S. Vretigans, S. Idowu, & R. Schmidpeter (eds.) *Corporate social responsibility in Sub-Saharan Africa: Sustainable development in its embryonic form*. Switzerland: Springer International Publishing.

Keeping, J. (1998). Thinking about benefits agreements: an analytical framework. *Canadian Artic Resources Committee-Northern Minerals Program Working Paper No. 4*, p. 24-27.

Kennett, S. (1999). Issues and Options for a Policy on Impact and Benefits Agreements for the Northern Territories. Prepared for the Mineral Directorate, Department of Indian Affairs and Northern Development. Calgary: Canadian Institute for Resources Law.

Kirchoff, D., Gardner, H. & Tsuji, L. (2013). The Canadian Environmental Assessment Act, 2012 and associated policy: Implications for Aboriginal peoples. *The International Indigenous Policy Journal, 4(3).*

Kischchuk, P. (2006). Socio-Economic effect handbook for Yukon Mining, Oil and Gas projects. *Oil and gas and mineral resources division from the Department of Energy, Mines and Resources. Government of Yukon.* Retrieved from: http://www.cbern.ca/content/uploads/sites/4/2016/03/Socio-economic-Effects-Handbook-for-Yukon-Mining-Oil-and-Gas-Projects.pdf

Klein, H., Donihee, J., & Stewart, G. (2004, April). Environmental impact assessment and impact and benefit agreements: Creative tension or conflict? Paper presented at the International Association for Impact Assessment conference, Vancouver, British Columbia, Canada.

Knotsch, C, & Warda, J. (2009). Impact Benefit Agreements: A Tool for Healthy Inuit Communities? Ottawa, ON: National Aboriginal Health Organization. Retrieved from: http://www.naho.ca/documents/it/2009_Impact%20and%20Benefit%20Agreements_Full %20Report.pdf

Kwiatkowski, R. E., & Ooi, M. (2003). Integrated environmental impact assessment: A Canadian example.

Bulletin of the World Health Organization, 81, 434-438.

Let's Talk Royalties. (n.d.). *Let's talk about Alaska.* Retrieved from: http://letstalkroyalties.ca/did-you-know/lets-talk-about-alaska/.

Limerick, M., Tomlinson, K., Taufatofua, R., Barnes, R., & Brereton, D. (2012). Agreement-making with indigenous groups: oil and gas development in Australia.

Loeffler, B. (2015). mining and sustainable COMMUNITIES. *Economic Development Journal*, *14*(2), 23.

Loutit, J. Mandelbaun, J. & Szoke-Burke, S. (2016). Emerging practices in community development agreements. *Journal of Sustainable Development Law & Policy, 7*(1).

Lukas-Amulung, S. (2009). *The Rules of Engagement? Negotiated Agreements and Environmental Assessment in the Northwest Territories, Canada* (Doctoral dissertation, Royal Roads University).

McArthur, D. (1983). Surface Leases and Socioeconomic Considerations with respect to uranium mining. *Mining Law Institute University of Saskatchewan.* Retrieved from: http://library.lawsociety.sk.ca/inmagicgenie/documentfolder/AC5505.pdf

McKinney, M. & Field, P. (2008). Evaluating community-based collaboration on federal lands and resources. *Society and Natural Resources, 21(5)*, 419-429.

McMillan, LLP. (2009). Understanding the new BC resource revenue sharing policy with First Nations. Vancouver, BC, Canada: K. Clark.

McCreary, T., Mills, S. & St-Amand, A. (2016). Lands and resources for jobs: How Aboriginal peoples strategically use environmental assessments to advance community employment aims. *Canadian public policy, 42*(2), 1-12.

Minerals Mining and Sustainable Development (MMSD). (2012). Breaking New Ground: a report of the Mining, Minerals, and Sustainable Development project. Earthscan Publications Ltd: London, UK.

Mining Association of Canada (MAC). (2015). Annual Report. Retrieved from: http://mining.ca/sites/default/files/documents/MAC-Annual-Report-2015.pdf

Mining Association of Canada (MAC). (2016). *Towards Sustainable Mining: 2016 Progress Report.* Retrieved from: http://mining.ca/sites/default/files/documents/TSM-Progress-Report-2016.pdf

Mitsubishi Corporation. (2017). Mozal SA aluminum smelting project: Aluminum business and regional development. Retrieved from: http://www.mitsubishicorp.com/jp/en/csr/management/business/sustainability06.html

Mongolia Umnugobi. (2015). "Mongolia – Umnugobi Khanbogd Manlai Bayan-Ovoo Dalanzadgad – Oyu Tolgoi LLC – 2015 – Agreement."

Moritz, T. Ejdemo, T., Söderholm, P. & Warell, L. (2017). The local employment impacts of mining: An econometric analysis of job multipliers in northern Sweden. *Mineral economics.*

Morgera, E. (2007). Significant trends in corporate environmental accountability: The new performance standards of the International Finance Corporation. *Colorado Journal of International Environmental Law and Policy, 18*(1), 151-188.

Morton, C., Gunton, T. & Day, J. (2012). Engaging Aboriginal populations in collaborative planning: an evaluation of a two-tiered collaborative planning model for land and resource management. *Journal of Environmental Planning and Management, 55(4)*, 507-523.

Murphy, I. (2013). Industrial benefits planning: a bridge between SIA & CSR. *Stantec Consulting Ltd. and International Association for Impact Assessment*.

Nahanni Butte Dene Band submission (2010). Critique of the Socio-Economic Impact Assessment of the Prairie Creek Mine Prepared by Impact Economics for Canadian Zinc Corporation. *Crosscurrent Associates Ltd.* Retrieved from: http://www.reviewboard.ca/upload/project_document/EA0809-002_Nahanni_Butte_Dene_Band_Critique_of_the_Socio-Economic_Impact_Assessment.PDF

Natural Resources Canada (NRCan). (2014). Good Practices in Community Engagement and Readiness: Compendium of Case Studies From Canada's Minerals and Metals Sector. *Natural Resources Canada- Energy and Mines Ministers' Conference*. Sudbury, Ontario. Retrieved from: https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/www/pdf/publications/emmc/Good_practice_Compendium_e.pdf.

Natural Resources Canada (NRCan). (2014a). Diavik Diamond Mine Partnership Agreements. *Natural Resources Canada.* Retrieved from: http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/mineralsmetals/pdf/mms-smm/abor-auto/pdf/Diavik_factsheet_eng.pdf

Natural Resources Canada (NRCan). (2014b). *Good practices in community engagement and readiness: Compendium of case studies from Canada's minerals and metals sector*. Retrieved from: https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/www/pdf/publications/emmc/Good_practice_Compendium_e.pdf.

Natural Resources Canada (NRCan). (2015). Tables on the Structure and Rates of Main Taxes. *Government of Canada*. Retrieved from: https://www.nrcan.gc.ca/mining-materials/taxation/mining-taxation-regime/8890

Natural Resources Canada (NRCan). (2017). Mining Taxation in Canada. *Government of* Canada. Retrieved from: https://www.nrcan.gc.ca/mining-materials/taxation/8876

Natural Resource Governance Institute (NRGI). (2013). Norway: the 2013 Resource Governance Index. *Revenue Watch Institute*. Retrieved from: http://www.resourcegovernance.org/sites/default/files/country_pdfs/norwayRGI2013.pdf

Natural Resource Governance Institute (NRGI). (2014a). *Natural Resource Charter* (second edition). Retrieved from: http://resourcegovernance.org/approach/natural-resource-charter

Natural Resources Government Institute (NRGI). (2014b). *Natural Resource Fund Governance: The Essentials*. New York, NY: A. Bauer, M. Rietveld, & P. Toledano.

Newfoundland and Labrador Department of Natural Resources (NLDNR). (2012). Focusing Our Energy. Newfoundland and Labrador Energy Plan. Retrieved from: http://www.nr.gov.nl.ca/nr/energy/plan/index.html.

Newfoundland Department of Natural Resources (NLDNR). (2017). About the Department. *Newfoundland and Labrador Canada.* Retrieved from: http://www.nr.gov.nl.ca/nr/department/

Newfoundland Department of Natural Resources (NLDNR). (2017). Oil and Gas. *Newfoundland and Labrador Canada.* Retrieved from: http://www.nr.gov.nl.ca/nr/royalties/oil_gas.html

Newfoundland Department of Natural Resources (NLDNR). (2017). Mining. *Newfoundland and Labrador Canada.* Retrieved from: http://www.nr.gov.nl.ca/nr/royalties/mining.html

Newfoundland Department of Natural Resources (NLDNR). (2017). Hibernia South Expansion. *Newfoundland and Labrador Canada.* Retrieved from: http://www.nr.gov.nl.ca/nr/energy/petroleum/offshore/projects/hibernia_ext_royalties.html

Noble, B. (2010). *Introduction to Environmental Impact Assessment: A guide to principles and practice* (2nd ed.). Oxford University Press: Don Mills, Ontario, Canada.

Northern Alberta Development Council. (2013). Benefit Agreements in Canada's North: Priority project on sustainable resource development. Retrieved from: http://www.nadc.gov.ab.ca/Docs/benifit-agreements-2013.pdf

NWT. (2007). The MGP Socio-Economic Agreement Opportunities for the NWT and its Residents. *Northwest Territories Industry, Tourism and Investment.* Retrieved from: http://www.iti.gov.nt.ca/sites/www.iti.gov.nt.ca/files/MGP-SEA%2520fact%2520sheet.pdf

NWT & Mining Chamber of Mines. (2014). Measuring Success 2014: NWT Diamond Mines continue to create benefits. *NWT & Mining Chamber of Mines.* Retrieved from: http://www.miningnorth.com/_rsc/site-content/library/publications/Measuring_Success_NWT_Diamond_Mining.pdf

O'Faircheallaigh, C. (2003). Implementing agreements between Indigenous peoples and resource developers in Australia and Canada. *Aboriginal Politics and Public Sector Management Research Paper No 13*, Centre for Australian Public Sector Management, Griffith University: Nathan, Australia.

O'Faircheallaigh, C. (2004). Evaluating agreements between Indigenous peoples and resource developers. In Langton, M. & Palmer, L. (Eds): *Negotiating Settlements: Indigenous peoples, settler states, and the significance of treaties and agreements.* Melbourne, Australia: University Press.

O'Faircheallaigh, C. (2008). Understanding corporate-Aboriginal agreements on mineral development. *Development and Change*, *31*(1), 25-51.

O'Faircheallaigh, C. (2010). Aboriginal-Mining Company Contractual Agreements in Australia and Canada: Implications for Political Autonomy and Community Development. Canadian Journal of Development Studies / Revue canadienne d'études du développement, 30(1-2), 69-86. Retrieved from http://dx.doi.org/10.1080/02255189.2010.9669282

O'Faircheallaigh, C. (2015). Social Equity and Large Mining Projects: Voluntary Industry Initiatives, Public Regulation and Community Development Agreements. *Journal of Business Ethics, 132*, 91-103.

O'Faricheallaigh, C. & Gibson, G. (2012). Economic risk and mineral taxation on Indigenous lands. *Resources Policy, 37(1)*, 10-18.

O'Reilly, K. & Eacott, E. (1999). Aboriginal Peoples and Impact and Benefit Agreements: Report of a National Workshop. Northern Minerals Program. Working Paper No. 7. Yellowknife, NWT: Canadian Arctic Resources Committee. Retrieved from http://www.carc.org/pdfs/NMPWorkingPaper7OReilly.pdf

Oxfam America. (2013). *Free prior and informed consent in the Philippines: Regulations and realities.* Boston, MA, USA: Magno, C. & Gatmaytan, D.

Oyu Tolgoi. (2009). "Investment Agreement Between the Government of Mongolia And Ivanhoe Mines Mongolia Inc LLC"

Peterson St-Laurent, G. & Le Billon, P. (2015). Staking claims and shaking hands: Impact and benefit agreements as a technology of government in the mining sector. *The Extractive Industries and Society, 2*, 590-602.

Porter, M. and Vodden, K. 2012. An Analysis of Municipal Readiness for Socio-Economic Development Opportunities in the Isthmus of Avalon Region. Final Report. Memorial University, St. John's, Newfoundland and Labrador.

Prno, J., Bradshaw, B. & Lapierre, D. (2010). Impact and benefit agreements: Are they working?. Proceedings of the Canadian Institute of Mining, Metallurgy, and Petroleum conference, 2010 May 11. Vancouver, BC: CIM.

Prospectors and Developers Association of Canada (PDAC). (2014). Government Resource Revenue Sharing with Aboriginal Communities in Canada: A Jurisdictional Review. *Prospectors & Developers Association of Canada Annual Report.*

Public Works and Government Services Canada. (2015). Comprehensive Land Claims Agreement. *Supply Manual Section 1.25-Agreements*. Retrieved from: https://buyandsell.gc.ca/policy-and-guidelines/supply-manual/section/9/35#section-9.35.5.5

PricewaterhouseCoopers LLP (PWC). (2012a). Corporate income taxes, mining royalties, and other mining taxes: A summary of rates and rules in selected countries. Retrieved from: http://www.pwc.com/gx/mining.

PricewaterhouseCoopers LLP (PWC). (2012b). Oil and gas taxation in Canada: Framework for investment in the Canadian oil and gas sector. Retrieved from: http://www.pwc.com/ca/energy.

PricewaterhouseCoopers LLP (PWC). (2013). Canadian mining taxation. Retrieved from: http://www.pwc.com/ca/canminingtax.

PricewaterhouseCoopers LLP (PWC). (2016). Oil and gas taxation in Canada: Framework for investing in the Canadian oil and gas sector. Retrieved from: https://www.pwc.com/ca/en/energy-utilities/publications/pwc-oil-gas-taxation-2016-09-en.pdf

Radon, J. (2007). How to negotiate an oil agreement. In J. Stiglitz & S. Spiegel (Eds.), *Escaping the Resource Curse*. New York, USA: Columbia University Press.

RESOLVE (2015). From Rights to Results. Retrieved from http://solutions-network.org/site-fpic/files/2015/09/From-Rights-to-Results-Sept-2015-FINAL-ENG.pdf

Rio Tinto. (2016). Why agreements matter: A resource guide for integrating agreements into Communities and Social Performance work at Rio Tinto. Retrieved from: http://www.riotinto.com/documents/Rio_Tinto_Why_Agreements_Matter.pdf

Ross, M. L. (1999). The political economy of the resource curse. *World politics*, *51*(02), 297-322.

Sachs, J. (2007). How to handle the macroeconomics of oil wealth. In J. Stiglitz & S. Spiegel (Eds.), *Escaping the Resource Curse*. New York, USA: Columbia University Press.

Samson, C. (2016). Canada's strategy of dispossession: Aboriginal land and rights cessions on comprehensive land claims. *Canadian Journal of Law and Society, 31(1),* p. 87-110.

Schmidt-Hebbel, K. (2012). Fiscal Institutions in Resource-Rich Economies: Lessons from Chile and Norway. *Pontificia Universidad Católica de Chile, Instituto de Economía*. Retrieved from: http://www.economia.puc.cl/docs/dt_416.pdf.

Siebenmorgan, J. & Bradshaw, B. (2011). Re-conceiving Impact and Benefit Agreements as instruments of Aboriginal community development in northern Ontario, Canada. Oil, Gas, & Energy Law Intelligence, 9(4).

Smits, C., Justinussen, J. & Bertelsen, R. (2016). Human capital development and a Social License to Operate: Examples from Arctic energy development in the Faroe Islands, Iceland, and Greenland. *Energy Research and Social Science, 16*, 122-131.

Söderholm, P., & Svahn, N. (2014). *Mining, regional development and benefit-sharing*. research report, Economics Unit, Luleå University of Technology, Luleå, Sweden.

Sosa and Kennan. (2001). Impact benefit agreements between Aboriginal communities and mining companies: their use in Canada. Retrieved from: http://www.cela.ca/sites/cela.ca/files/uploads/IBAeng.pdf

South Africa. 2016. *Reviewed Broad Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry.* Department of Mineral Resources.

Storey, K. and Shrimpton, M. 2008. Industrial benefits planning in North America: Current Practices and Case Studies. In: Proceedings of the Regional Planning in Greenland Conference, Nuuk, Greenland, Denmark.

Susskind, L., ven der Wansem, M. & Ciccarelli, A. (2003). Mediating land use disputes: Pros and cons. *Environments, 31(2)*, 39-59.

Tangri, R., & Southall, R. (2008). The politics of black economic empowerment in South Africa. *Journal of Southern African Studies*, *34*(3), 699-716.

Tordo, S. (2011). *National oil companies and value creation.* World Bank Publications.

Wilcox, J. N. (2015). *Mining regulation and development in Botswana: the case study of the Debswana mining joint venture.* St. Mary's University, MA Thesis.

Van der Ploeg, F. (2011). Natural resources: Curse or blessing? *Journal of Economic Literature*, *49*(2), 366-420.

VBNC. (1997) Chapter 1 - Voisey's Bay Nickel Company Limited Project Description. Retrieved from: http://www.vbnc.com/eis/chap1/chap1.htm#Continue

Wilcox, J. N. (2015). *Mining regulation and development in Botswana: the case study of the Debswana mining joint venture.* St. Mary's University, MA Thesis.

Wolfe, W.J. (2001) Socio-economic impact agreements in Canada 1990-2001: Aboriginal expectations meet conventional legal, financial and business practices. *Prospectors and Developers Association of Canada*. Toronto, ON. Retrieved from: http://www.pdac.ca/docs/default-source/publications---papers-presentations---conventions/wolfe-(t-19).pdf?sfvrsn=4

World Bank. (2010). Mining community development agreements: Practical experiences and field studies. Washington, D.C.: Sarker, S., Gow-Smith, A., Morakinya, T., Frau, R. & Kuniholm, M.

Wright, A. J. (2013). Impact and Benefit Agreements: The Role of Negotiated Agreements in the Creation of Collaborative Planning in Resource Development. (Unpublished master's thesis). The University of Guelph, Guelph, ON. Retrieved from: https://ccednet-rcdec.ca/sites/ccednet rcdec.ca/files/ccednet/pdfs/impact_and_benefit_agreements_the_role_of_negotiated_agreements_in_the_creation_of_collaborative_planning_in_resource_development_full.pdf

Wright, L. & White, J. P. (2012). Developing Oil and Gas Resources On or Near Indigenous Lands in Canada: An Overview of Laws, Treaties, Regulations and Agreements. The International Indigenous Policy Journal, 3(2). Retrieved from: http://ir.lib.uwo.ca/iipj/vol3/iss2/5