Benchmarking Fiscal Benefit Distributions through Impact Benefit Agreements: A Case Study of the Trans Mountain Expansion Project

by

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Abstract

Impact Benefit Agreements (IBAs) are increasingly important in the planning and successful execution of major resource development projects in Canada. IBAs are tools of Indigenous community development and are intended to help return resource development benefits to locally impacted Indigenous communities. Fiscal benefits delivered through IBAs are often a much needed source of community funding. This report presents a methodology to evaluate the quantum of fiscal benefits Indigenous governments receive through IBAs relative to benchmark standards developed though a literature review. The methodology is applied to a case study of the Trans Mountain Expansion Project. The results show that IBAs likely fall short in their objective to deliver an adequate share of fiscal benefits to Indigenous governments relative to the fiscal benchmarks used in the evaluation. This report aims to provide tools and recommendations to aide First Nations in the negotiation of IBAs so as to provide a more equitable distribution of the benefits of natural resource development in Canada.

Keywords: impact benefit agreement; fiscal benefits; community development; consultation & accommodation; natural resource development; Trans Mountain Expansion Project

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Table of Contents

List of Tables

List of Figures

List of Acronyms

BPD	Barrels per day
CAPP	Canadian Association of Petroleum Producers
CBA	Community Benefits Agreement
CER	Canada Energy Regulator
DWT	Deadweight tonnage
EA	Environmental assessment
EPP	Economic Pathways Partnership
FPIC	Free, prior, and informed consent
IAMC	Indigenous Advisory and Monitoring Committee
IBA	Impact Benefit Agreement
MBA	Mutual Benefit Agreement
MOU	Memorandum of understanding
NEB	National Energy Board
NPV	Net present value
PBA	Pipeline Benefits Agreement
ROE	Return on equity
SFU	Simon Fraser University
TMX	Trans Mountain Expansion Project
WMT	Westridge Marine Terminal

Chapter 1. Introduction

1.1 Introduction

Natural resource development is a pillar of the Canadian economy and has the potential to generate significant wealth for those involved. Traditionally this wealth has accrued to private interests and government entities, often at the expense of local communities who bear the costs of resource development. However, the sociopolitical landscape for resource development is always evolving and in recent decades corporate actors have adopted a citizenship role and taken on more responsibility for the social and economic well-being of communities (Blowfield, 2005; Heisler and Markey, 2013). Central to this is the recognition of Indigenous rights and the need to adequately consult and accommodate Indigenous interests as well as acquire free, prior, and informed consent (FPIC) for development projects. (Papillon & Rodon, 2017; ICMM, 2015). One way to do this is through an Impact Benefit Agreement (IBA).

An IBA is a negotiated contractual agreement made between a proponent of resource development and an Indigenous government that shapes the terms of development on Indigenous lands (Gogal et al., 2005, Gibson & O'Faircheallaigh, 2010). These agreements have grown in importance in line with the recognition of Indigenous governments as legitimate government entities and the trend towards devolution (Irbacher-Fox & Mills, 2008). IBAs allow Indigenous communities to share in the benefits of resource development and to be compensated for impacts which are felt locally. However, while IBAs are signed with the implicit understanding that they will benefit a community, the literature has shown that a range of community outcomes (in terms of both positive and negative impacts and expected versus actual benefits) are possible (Caine & Krogman, 2010; Szablowski, 2010; O'Faircheallaigh, 2013).

Benefits sharing can take many forms. Revenue distributions, employment opportunities, and increased environmental protections are some of the benefits that can accrue through IBAs. This report will focus on revenue distributions and investigate a fundamental question on what quantum of fiscal benefits a First Nations community could negotiate for relative to benchmark standards for fiscal benefits.

1.2 Research Rationale & Report Purpose

Although the body of research on IBAs has grown in recent years, there remain significant gaps in knowledge. Existing studies have largely focused on IBA analysis from political science, social science, and legal perspectives, but few have analyzed IBAs using an economic and financial lens (Bradshaw & Wright, 2013; Bradshaw et al., 2016). Given that IBAs are expected to deliver a share of resource development benefits to First Nations communities and that fiscal benefits are a typical form of benefit delivery, it stands to reason that there should be an increased focus on best practices and methodologies for the equitable delivery of fiscal benefits.

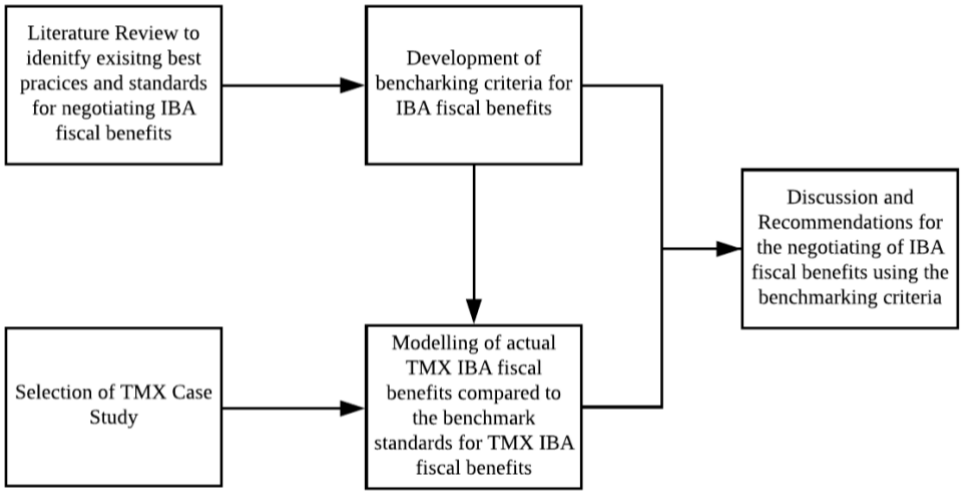
The purpose of this report is to:

1) Introduce a methodology for negotiating a quantum of fiscal benefits evaluated against benchmark standards developed through a literature review
2) Highlight the magnitude of IBA fiscal benefits delivered to Indigenous governments relative to benchmark standards through a case study of a contemporary resource development project
3) Provide recommendations and tools for First Nations specifically looking to negotiate the fiscal components of IBAs

1.3 Report Methodology

There are two methodologies used in this report, as illustrated in Figure 1.1. The first involves a literature review to identify best practices for the negotiation of IBA fiscal benefits and develop benchmarking criteria for fiscal benefits. The second involves quantitative economic modelling to compare IBA fiscal benefits from a contemporary resource development case study to a calculation of hypothetical fiscal benefits based on benchmark levels. The contemporary resource development project that has been used as a case study is the Trans Mountain Expansion Project, a proposed pipeline development project with significant Indigenous engagement. By the end of this report, the combination of the literature review and case study economic analysis will allow for a broader discussion on best practices for negotiating IBA fiscal benefits.

Figure 1. 1 Report methodology



1.4 Report Organization

This report is divided into six chapters. Chapter 1 introduces the research area and outlines the purpose of the report and methodologies used. Chapter 2 provides an overview of IBAs, with specific discussions on history and context, agreement making processes, and content. Chapter 3 highlights relevant literature on best practices and negotiating standards for IBA fiscal benefits and develops benchmark standards for fiscal benefits. Chapter 4 introduces the case study that will be used to evaluate and compare the benchmark standards for IBA fiscal benefits against the actual IBA amounts. The analysis of this is presented in Chapter 5. Chapter 6 discusses the results of the analysis and provides recommendations on negotiating fiscal benefits through IBAs.

Chapter 2. IBA Overview

2.1 Introduction

IBAs are private, bilateral contracts negotiated between First Nations communities, industry, and/or governments that are designed to address the adverse local effects of resource development and return project benefits directly to locally impacted communities (Sosa & Keenan, 2001). They are increasingly important in the planning and successful execution of major resource development projects in Canada and can be used to support Indigenous governance and community development, elicit First Nations support for a project, and reduce political risk and regulatory delays for developers (Bradshaw & McElroy, 2014; O'Faircheallaigh, 2010a; Kennett, 1999; Gilmour & Mallett, 2013). In this chapter, a brief overview of IBAs will be presented with a focus on process, content, and context.

2.2 Canadian IBA History

IBAs[1] began to be negotiated in the mid 1970s in Canada and were then almost exclusively negotiated between a federal or provincial government and industry (Shanks & Lopes, 2006). In these early agreements the government negotiated on behalf of a First Nations community and sought benefits to mitigate negative socio-economic impacts of development (Shanks & Lopes, 2006). This type of arrangement reflected a policy shift that sought to develop Indigenous economic, employment, and other opportunities through private enterprise rather than government mandates (Shanks & Lopes, 2006). As IBAs evolved, they came to be negotiated directly between industry and First Nations communities, although some agreements negotiated between governments and First Nations emerged as well. What is usually regarded as the first modern IBA to be signed is the Raglan Agreement, signed in 1995, and made between a mine operator in Northern Quebec and Indigenous organizations that represented Indigenous community interests (Glencore, n.d.).

[1] Agreements between project developers and communities go by a variety of names including, but not limited to, community benefits agreements, benefit sharing agreements, and IBAs. This report uses the term IBA to refer to all agreements of this nature

Over the last two plus decades, the prevalence of IBAs has grown substantially and they are now negotiated for virtually all major resource development projects that impact Indigenous land use or traditional practices (O'Faircheallaigh, 2013). This is in part due to increasing claims of Aboriginal rights and title on lands used for resource development and the unique relationships between industry and First Nations that are the product of this (Bradshaw & Wright, 2013). In the minerals sector alone, an estimated 455 agreements were signed in Canada between mining and exploration companies and First Nations governments between 2000 and 2017 (NRCAN, 2019). Whether the growth of IBAs is more a reflection of greater Indigenous autonomy and governance or strategic industry investment is a question that remains.

Government to government IBAs have also increased in numbers and scope in recent decades as a means to resolve various land use and title conflicts (Pendakur & Fiser, 2017; PDAC, 2014). B.C., for example, has a resource revenue sharing program that seeks to distribute fees, royalties and taxes collected on certain resource developments through individually negotiated revenue sharing agreements (Pendakur & Fiser, 2017). The province now has over 500 agreements with Indigenous governments in sectors such as mining, forestry, and natural gas and revenue sharing amounts are increasing each year (Province of British Columbia, 2017; Hoekstra & Pynn, 2015).

2.3 The Legal and Regulatory Context for IBAs

In Canada, First Nations enjoy unique rights and title to traditional lands that are protected under the Constitution and based on the occupation and use of lands prior to the arrival of European settlers (Sosa & Keenan, 2001; Wright & White, 2012). Unique Aboriginal rights include any activities that are integral and distinctive to the culture of a First Nation. Traditional forms of governance and land management are two of these rights; however, there remains some ambiguity in the legal system as to the extent of what qualifies as an activity that is integral and distinctive (Sosa & Keenan, 2001).

First Nation legal rights vary across Canada depending on issues such as the nature of treaties signed between Indigenous communities and government. In British Columbia there are few treaties and the legal landscape is complex. The decision in *Delgamuukw vs. British Columbia, 1997* was a notable step in establishing that Aboriginal title in British Columbia is a collective right to the land itself, which includes

the ownership of sub-surface mineral resources. However, *Delgamuukw* also established that Aboriginal title has a limitation, specifically that land cannot be used in a way that destroys the traditional relationship between Aboriginal peoples and their land (Mandell, 1998). The implication of this is that First Nations do not necessarily have the ability to engage in mining, oil and gas, or other extractive practices on their land, as doing so may compromise both the relationship between Aboriginal peoples and their land and the right to Aboriginal title (Mandell, 1998; Sosa & Keenan, 2001; Wright & White, 2012).

At the same time, the *Delgamuukw* ruling determined that traditional and contemporary Aboriginal rights to land must be considered when new development is proposed in regions where Aboriginal title is proved. This was important in allowing Aboriginal peoples greater control over Crown authorized development on Aboriginal tile lands (Mandell, 1998). These issues have been revisited in the courts since *Delgamuukw*, but they remain unsettled and subject to case by case interpretation.

Regardless of the ambiguity, the Crown has a duty to act honourably in their dealings with First Nations and to protect Aboriginal rights as part of their fiduciary duty (Gogal et al., 2005). From this, the duty to consult and accommodate First Nations arises and this duty has been repeatedly affirmed by the Supreme Court, most notably through the *Haida Nation vs. British Columbia (Minister of Forests), 2004* case. In some jurisdictions, such as Alberta, the legal duty to consult is easily triggered because the entire province is covered by treaties. In other jurisdictions, such as British Columbia, where treaties have for the most part not been signed, the burden of establishing whether an Aboriginal right has been infringed upon rests with First Nations and this creates an environment with significantly greater legal and procedural uncertainty (Wright & White, 2012). The ultimate duty of consultation and accommodation rests with the Crown, but it is increasingly common for procedural aspects of consultation to be delegated to relevant third parties, such as industry proponents (Browne & Robertson, 2009; Wright & White, 2012).

IBAs are the product of consultation between a private industry proponent and/or government and a First Nation. In essence, IBAs address infringements on Aboriginal rights by outlining the terms and conditions that allow for a development to proceed on Aboriginal lands (Gogal et al., 2005, Gibson & O'Faircheallaigh, 2010). There is no

comprehensive regulation surrounding IBAs and in most jurisdictions there is no legal requirement for them to be negotiated. However, the *de facto* standard is for industry to ensure that Aboriginal interests are adequately considered in order to avoid potential project delays, avoid additional costs, and to also garner local support, foster good public relations, and acquire a social license to operate (Gogal et al., 2005; Sosa & Keenan, 2001; Fidler & Hitch, 2007). A social license is generally recognized as the informal authorization of a company's actions by a community and is based on trust and confidence. What exactly the social license encompasses, who controls it, and how it is maintained and enforced are questions that remain uncharacterized (Idemudia, 2009).

As mentioned previously, the ultimate duty to consult rests with the Crown and since IBAs are often bilateral agreements between a private project proponent and a First Nation, it is legally unclear as to whether the signing of an IBA constitutes satisfactory Crown consultation, particularly since confidentiality provisions in IBAs inhibit the Crown's ability to even review the agreements (Wright & White, 2012). Indeed, the privatization of consultation and accommodation comes with many pitfalls that do not seem to be addressed through public sector oversight. For example, developers are advised to include provisions that specify that negotiations have not been coerced and some companies specifically include language that characterize their IBAs as satisfying the Crown's duty to consult and accommodate (Gogal et al. 2005; Levitan & Cameron, 2015). Other companies go further and get the Crown to sign off on their IBAs (again, without a review of its substance) to protect against potential challenges to the legitimacy of the IBA as evidence of consultation (Levitan & Cameron, 2015). Additionally, concerns have been raised about the actual mechanics behind the distribution of benefits and their potential to be manipulated so as to limit future benefit streams (Caine & Krogman, 2010). This concern is aligned with broader concerns about the balance of power in negotiations and community objectives that are defined or influenced by industry and poorly aligned with the creation of lasting substantive outcomes for Indigenous people (Caine & Krogman, 2010). Overall, it is likely most appropriate to say that IBAs, through their distribution of benefits, represent a form of accommodation without official Crown consultation (Wright & White, 2012; Levitan & Cameron, 2015).

In addition to the common law legal obligations of the Crown to First Nations as well as the context for IBA negotiations, there are a number of legislated ways in which a

requirement for a benefits agreement may arise. The *Indian Oil & Gas Act, 1985* outlines consultation requirements for all oil & gas developments and both the *Canadian Oil & Gas Operations Act, 1985* and *Canadian Petroleum Resources Act, 1985* require benefits plans to be approved before any oil and gas development approvals are authorized. The *Canadian Environmental Assessment Act, 2012* requires project proponents to mitigate environmental impacts which can in part be done through an IBA negotiated with affected First Nations communities. An IBA may also be negotiated to account for perceived gaps in the environmental assessment (EA) process and as continued accommodation of Aboriginal interests (Fidler & Hitch, 2007). Finally, The National Energy Board (NEB) expects a project proponent to file a copy of its consultation protocol and an IBA (or evidence of an IBA) may be submitted as evidence that satisfactory consultation has taken place (Gogal et al., 2005).

In summary, the context for IBAs primarily stems from recognition of Aboriginal rights and the Crown's fiduciary duty to consult and accommodate. Consultation and accommodation is triggered through: (1) the Crown's legal obligations; (2) regulatory requirements, such as EA; and (3) industry initiatives.

2.4 The IBA Negotiation and Implementation Process

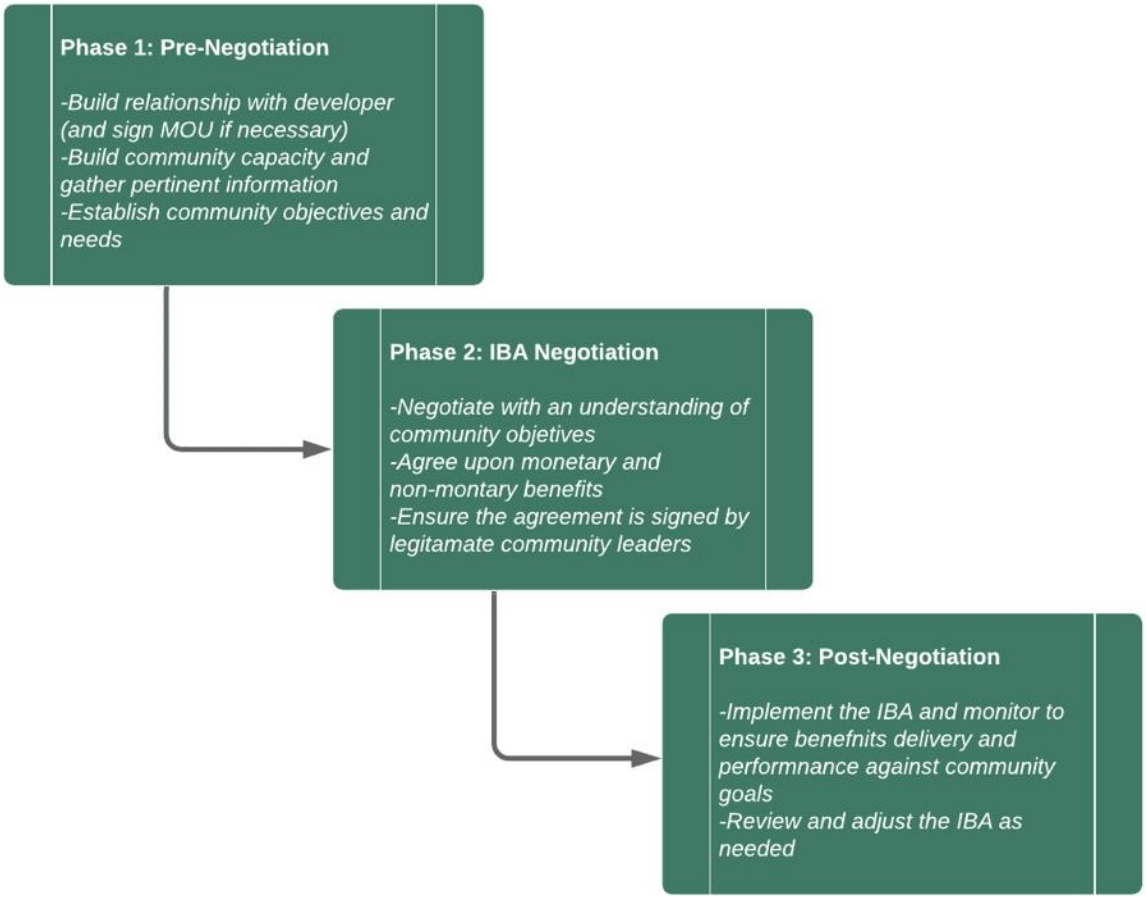
The decision to negotiate an IBA can arise for a number of reasons. A project developer may negotiate an IBA because of legal duty or corporate "good neighbour" policy, while a First Nations government may negotiate an IBA to share in windfall economic opportunities or address environmental and cultural impacts (Browne & Robertson, 2009, Shanks & Lopes, 2006). Regardless of the motivation, the IBA process is characterized by actions before, during, and after the negotiation of an agreement, as highlighted in Figure 2.1. For First Nations communities, the initial phase of the IBA process is focused on information gathering, preparation, and preliminary discussions. A First Nations community can greatly enhance their chances of successfully negotiating an IBA by engaging in relationship building both with the project proponents and within the First Nations community (Gibson & O'Faircheallaigh, 2010). Externally, regular face-to-face meetings with developers can overcome the atmosphere of distrust and dissatisfaction in negotiations as more information is shared and personal relationships are developed (Browne & Robertson, 2009). Internally, community consultation and capacity building, whereby the necessary project information is

reviewed and a unified community negotiation position is established, is equally important (Sosa & Keenan, 2001). During this initial phase, a negotiating team with specific skills can be assembled, a plan for gathering and sharing information can be developed, and a budget for the negotiations can be formulated (Gibson & O'Faircheallaigh, 2010). Capacity constraints can also be addressed during this stage and a community may seek funding for future negotiations through a Memorandum of Understanding (MOU). An MOU is a useful tool to establish how the future negotiations will proceed, who will participate, and which rules will be followed (Sosa & Keenan, 2001). The decision to sign an MOU and to engage with a developer does not imply a decision to consent to a project (Gibson & O'Faircheallaigh, 2010). If new information becomes available or a developer is not willing to meet a community's conditions, a First Nations community is free to terminate discussions at any time. However, by gathering sufficient information, building relationships, building capacity, and generally laying the foundation for negotiations, there is a greater chance of achieving a fair, lasting, and mutually beneficial agreement. While the content of an IBA is often the focus of negotiations, this initial phase is as critical as the content is to its success and to the outcomes it delivers (Gibson & O'Faircheallaigh, 2010).

The second phase of the IBA process is the actual negotiation of the agreement and the benefits therein, but it is worth noting that the negotiation of an IBA should be considered in the context of the EA timeline. An IBA can be negotiated before, after, or at the same time as the EA is completed. The optimal time is when both leverage and information is high (Gibson & O'Faircheallaigh, 2010). IBAs do not have a legislated linkage to EA, but address many of the pitfalls of the EA process and thus stand in as supraregulatory agreements (Fidler & Hitch, 2007; Galbraith et al., 2007). While there is no doubt that IBA negotiations are challenging, they should always be conducted in good faith in a manner that is agreed upon at the start (Gibson & O'Faircheallaigh, 2015). Equally important is to be aware of the broader community goals when negotiating, to ensure that the IBA helps to achieve them, and to avoid negotiating simply because of the desire to reach an agreement (Gibson & O'Faircheallaigh, 2015; O'Faircheallaigh, 2010b). Finally, before an agreement is signed, it is important to ensure that the First Nations signatories are recognized as legitimate community leaders that represent and are accountable to the First Nation. The First Nation leaders may be elected leaders, hereditary leaders, or both (Browne & Robertson, 2009).

The final phase of the IBA process is implementation, monitoring, and review. The signing of an agreement does not always lead to the expected outcomes (O'Faircheallaigh, 2003). The outcomes are determined by the implementation, monitoring, and review processes. Monitoring establishes whether implementation is occurring, and the review allows for an assessment of the implementation mechanisms (O'Faircheallaigh, 2003). One of the more common obstacles that impedes IBA implementation is the failure of parties to communicate, which should be resolved early on in the first phase of negotiations (Gibson & O'Faircheallaigh, 2010; Browne & Robertson, 2009). Care should also be taken to make sure that objectives are measurable and as clear as possible so that all parties can accurately track the extent to which they are meeting their objectives and avoid implementation frustrations (Browne & Robertson, 2009). The parties should also be flexible enough to treat IBAs as living documents and use adaptive management practices to review and ensure that the IBA continues to meet the needs of all parties on an ongoing basis (Diges, 2008; Gibson & O'Faircheallaigh, 2010). In the event of a dispute between the parties, an advisable practice is to agree in writing on dispute resolution mechanisms and fully exhaust these mechanisms before moving on to more costly, adversarial processes (Sosa & Keenan, 2001).

Figure 2. 1 The IBA process in review



2.5 IBA Content:

The negotiated provisions within an IBA are not subject to regulatory oversight or a common standard and therefore, the content found within an IBA can take many forms (Browne & Robertson, 2009; Wright & White, 2012; Shanks & Lopes, 2006). The earliest IBAs focused on employment benefits, but as IBAs have expanded in scope, more modern agreements typically provide for economic development, financial, environmental, and social & cultural benefits (Sosa & Keenan, 2001). A summary of typical content relating to these benefits categories is found in Table 2.1.

Table 2. 1 Summary of IBA content

Benefit Type	Typical Content

Employment	• Hiring policies which give preference to First Nations candidates • Quotas or minimums for First Nations employment • Programs that keep First Nations informed of job or skill development opportunities • Assurances that First Nations employees will not be adversely impacted by layoffs • Provisions to ensure that cultural hurdles for First Nations are removed in the workplace (may include flexible schedules for participation in traditional activities, cross cultural training for Indigenous and non-Indigenous employees, housing and other facility specifications) • Clear procedures for evaluation and advancement • Training, apprenticeship, and educational programs • Requirements for IBA employment considerations to also apply to subcontractors
Economic Development & Indigenous Business Opportunities	• Targets that outline the amount of goods and services provided by Indigenous businesses • Advance notice of contract opportunities before they are publicly advertised • Assistance in the preparation of tenders/bids • Assistance in securing financing • Allowing First Nations businesses to utilize company infrastructure • Unbundling larger contracts into smaller, manageable pieces • Establishment of a Company-First Nations committee to facilitate communication
Financial	• Fixed payments, taxes/royalties, profit sharing and equity arrangements • Compensation to specific individuals or groups who suffer losses caused by the development (e.g. hunters and fishers) • Processes and methods for determining payment amounts • Mechanisms to address how financial payments will be managed
Environmental	• Guidelines and mechanisms to ensure that First Nations participate fully in the EA process (particularly relevant if an IBA is signed before the EA is complete) • Definitions of environmental standards that are suitable for First Nations and are clear, quantifiable, and enforceable (these may be different than the legal standards) • Requirements for baseline environmental studies to be conducted with and shared with First Nations • Specific measures to minimize the impact of a mine on wildlife • Establishment of independent monitoring committees

	• Inventories of all the products and materials that will be used in the development • Trust funds or security deposits to be used for future reclamation activities in the event that these are not addressed by the company
Social & Cultural	• Specific measures to protect burial sites and other sites of cultural importance • Development of social and recreational programs • Financial and infrastructural support for community projects • Requirements for social impact assessments with participation from First Nations community members • Programs to monitor the ongoing social and cultural impacts of a development

Sources: Gibson & O'Faircheallaigh, 2015; Browne & Robertson, 2009; Sosa & Keenan, 2001

Chapter 3. Literature Review

3.1 Introduction

The purpose of this literature review is to identify best practices and benchmark standards that are used to negotiate fiscal benefits provisions in IBAs. Fiscal benefits are the revenue sharing payments that are distributed directly to First Nations from a project proponent or developer. Fiscal benefits typically form part of the overall benefits package negotiated in an IBA, alongside benefits related to employment, economic development, community development, and environmental protection.

3.2 Background & Context

Natural resource development projects have the potential to generate economic rent, which is surplus revenue in excess of all costs including a normal return to capital. These economic rents can accrue exclusively to extractive industries when the ownership of *in situ* resources is held privately. However, where *in situ* resources are publicly owned (as in the case of resources on Crown land in Canada), it is generally expected that rents will be returned to the public (by way of government) through fiscal regimes.[2] Rents that have been redistributed to the public can be reinvested into productive capital and contribute locally to sustainable development. Resource rents may enhance government budgets, help to fund health, educational, and social services, or maintain public infrastructure, among other things (Markey & Heisler, 2011; Segal, 2012). The theoretical underpinning of fiscal regime design is to maximize the net present value (NPV) of rents collected over the life of a project for the public owner of the natural resource (IMF, 2012; Garnaut & Clunies Ross, 1983). But in practice, fiscal regime design for natural resource development projects is often challenging because of factors such as commodity market volatility, long capital investment cycles, and information asymmetries between developers and governments. Ultimately, the design of a fiscal regime needs to align with key governmental objectives, which are summarized and described in Table 3.1.

[2] A fiscal regime refers to the composition of fiscal instruments (such as royalties and taxes) employed to capture resource rents.

Table 3. 1 Key governmental objectives in fiscal regime design

Fiscal Regime Evaluation Criteria	Description & Objective
Revenue Raising Potential	The ability of the fiscal regime to capture a proportion of economic rents over the lifetime of a project. A well designed fiscal regime should maximize the NPV of the rents collected.
Administrative Burden	The level of administrative complexity needed to manage the fiscal regime. An optimal fiscal regime is one that is easy to administer and/or matched to the capacity of the government.
Neutrality	The impact the fiscal regime has on the private investment decision or operating behaviour. True neutrality means that the fiscal regime will have no impact on investment or production decisions and should be the encouraged in regime design.
Responsiveness to Windfall Profits	The ability of a fiscal regime to capture windfall rent in situations where it accrues. A fiscal regime should typically be designed to capture a proportional amount of windfall rents
Income Stability	The variability or volatility of revenues received by a government over time. An optimal fiscal regime should provide a stable and predictable flow of revenues throughout the lifetime of a project.
Payment Timing	The timing of the receipt of revenues by a government. Government regimes should be coordinated with their specific funding needs in present and future time periods.
Involvement in Project Decisions	The amount of project decision making power a government may have under a given fiscal regime. Ideally, a regime will provide some level of influence in key project decisions.

Source: Gunton et al., 2020

The fiscal regime design considerations that First Nations governments have when negotiating for fiscal benefits packages through IBAs are similar to the considerations that national or regional governments have when negotiating tax and royalty remines. Although the quantum of fiscal benefits that a First Nations community receives from a given IBA can vary drastically (O'Faircheallaigh, 2013), most IBAs employ one or several fiscal instruments to obtain an agreed upon level of revenue (O'Faircheallaigh, 2006; Gibson & O'Faircheallaigh, 2010; Gogal et al., 2005). The most commonly used fiscal instruments in IBAs are briefly discussed in Table 3.2.

Table 3. 2 Summary of fiscal instruments commonly used in IBAs

Fiscal Instrument	Description
Fixed Payments	• Payments of specific dollar amounts that the project operator distributes on specified dates over the life of a project • Payment dates can be tied to project milestones (such as the beginning of construction or production) or simply be on a timed basis (such as quarterly or annually) • Payment structure is dependable and easy to administer • Does not allow for a community to share in the benefits from a project that increases its production or profitability above forecasts
Volumetric Royalties	• Royalties levied as a fixed sum per unit of a resource extracted, produced, or transported • Administratively simple, particularly when coordinated with third party audits or reporting processes • Can be an attractive payment mechanism for a community that is looking to receive stable revenues proportional to the size of the project • Payments do not vary with commodity prices and thus do not collect windfall benefits generated by strong commodity pricing • Can be difficult to set neutral royalty rates that collect economic rents because the royalty is based on volumes of production and not on profitability • Possible for the royalty to decline in real dollars adjusted for inflation unless it is clearly specified that the royalty is tied to inflation rates • Best suited to bulk, low value commodities
Ad Valorem Royalties	• Royalties tied to the market value of a resource and typically expressed as a percentage of the sales value • Payment stability is subject to market fluctuations and thus, while a strong market price can yield significant financial payments to communities, the opposite is also true • Generally easy to administer • Royalty rates need to be set so that they do not impede investment or operating decisions as high royalty rates on sales may inhibit project profitability and fail it capturing the economic rents.
Net Income (Profit Based) Royalties	• Royalties levied as a percentage of the net income that a project generates after all applicable costs have been deducted from the total revenues • Effectively the same as income taxes

	• Allows a community to benefit from rising resource prices, operating efficiencies, and economies of scale, but provides less certainty on the payment amounts as the profitability of a project can fluctuate year over year • Comes with administrative complexities associated with verifying project costs and benefits and may not result in significant payments until the latter stages of a project once the primary capital costs have been fully depreciated • Tied to profitability and unlikely to have a significant impact on the development investment decision or operating behaviours • Typically allow for a larger share of the economic rent to be collected than other fiscal instruments
Property Taxes	• Taxes applied as a percentage of a property's value • Property values may be determined by the market value of the land and added capital, the book value, or the NPV of the *in situ* mineral resources • Can provide a high degree of income stability, but typically fail to raise substantial revenues • May distort the development decision if the taxation rate is set too high • May create administrative complexity if a property is located outside of a community's municipal jurisdiction • Property taxes also may not capture much of the project rent because they are not based on the profitability of the project
Joint Ventures	• Joint venture equity arrangements allow First Nations communities to partially own (and potentially manage) a resource development project and benefit from the corresponding capital gains and dividends that flow to shareholders • A community may realize substantial benefits from a project that enjoys sustained profitability, but there is also the risk that a project remains unprofitable and is unable to return benefits to its shareholders • An additional layer of risk is introduced if a community needs to fund their equity investment with third party debt • Joint ventures are complex to administer and require substantial capacity within a community to be effectively implemented

Source: Gunton et al., 2020

Each of these fiscal instruments have advantages and disadvantages when evaluated against the key governmental objectives (Gunton et al., 2020). The optimal design of IBA fiscal regimes likely uses a combination of fiscal instruments to generate a

maximum amount of revenue with a high degree of payment stability (Gunton et al., 2020).

It is worth noting that the literature on IBAs tends to focus on mining projects (Gibson & O'Faircheallaigh, 2010), but the prevalence of IBAs and similar benefits agreement has grown significantly in the last 20 years. They are now frequently seen in oil & gas, pipelines, forestry, hydropower, and other large industrial sectors (Egre et al., 2007; Browne & Robertson, 2009; Wright & White, 2012). Because of the different economic characteristics of these industries, some fiscal instruments may be favoured over others in certain situations. Certainly, this is the case on projects where resource rents do not accrue because of natural monopoly regulations or other external influences.[3] Regardless, the choice to use a fiscal instrument, or combination of fiscal instruments, is largely an act of balancing risk with reward (O'Faircheallaigh & Gibson, 2012). Once a choice is made, there remains the fundamental question of what total revenue a First Nations government should negotiate for? If an ad valorem royalty is chosen, what royalty rate should be used to achieve the desired revenue level? If a net income royalty is chosen, what should the tax rate be? If a fixed payment is negotiated for, what should the payment amount be?

The literature is largely silent on these questions and on what benchmark standards are appropriate for measuring fiscal benefits distributions. Of course, this is not entirely unexpected given that each community ultimately must make its own decisions based on community objectives (O'Faircheallaigh, 2010b). Furthermore, each resource development project is unique and produces both impacts and benefits on varying scales (Shanks & Lopes, 2006). Attempting to align community interests with project dynamics makes it difficult to negotiate IBAs on anything but a case by case basis. At the same time, the negotiating table is often characterized by power imbalances and information gaps that favour project developers and can lead to low quality or negative outcomes for First Nations communities (Caine & Krogman, 2010; Szablowski, 2010; O'Faircheallaigh, 2013). IBAs can lead to problems that extend well beyond the principal impacts of resource development. Examples of this include public health issues that are perpetuated by the unfettered flow of money into a community,

[3] Oil and gas pipelines in Canada, which are regulated entities that do not generate rents, constitute a good example of this.

mistrust between leaders and citizens resulting from confidentiality agreements, and added burdens on human and financial resources that are not accounted for (Diges, 2008; Shandro et al., 2011). This failure to fully benefit from resource development, or be left worse off, is akin to what is commonly referred to as the resource curse. Additionally, IBAs may lead to dependencies on corporations that ultimately impede or undermine longer term objectives of exerting title and obtaining control and autonomy over Indigenous lands (Levitan & Cameron, 2015). On the more positive side, IBAs have been shown in some circumstances to redefine the community-developer relationship and change the distribution of project benefits and costs in fundamental ways (O'Faircheallaigh, 2013). Thus, while it may be impossible to define a definitive benchmark standard for fiscal benefits distributions, the identification of benchmarks that can be used as a starting point in IBA negotiations serves to level the playing field and reduce the potential occurrence of negative or uncertain outcomes resulting from IBAs.

There are no formal regulatory guidelines on negotiation standards for IBAs in Canada (Sosa & Keenan, 2001) and even in jurisdictions like Nunavut, where IBAs are mandated under land claims agreements, there is still a lack of guidance on what an IBA should include (O'Reilly & Eacott, 1998). This lack of guidance has been noted as an impediment to achieving public policy goals (Sosa & Keenan, 2001) and has led to calls for a standard IBA model to be developed with basic standards for the typical clauses so that parties can focus on the issues unique to their situation (Diges, 2008). As the body of research on IBAs continues to increase in scope, questions on standards and benchmarks remain. Fiscal benefits provisions are of course only one element of an IBA, but they will be the focus of this literature review. The literature reviewed in the remainder of this chapter will be segregated by sources into two categories:

1) Best practices and standards for fiscal benefits from the IBA literature

2) Best practices and standards for fiscal benefits from leading, publicly available IBAs compiled in the SFU IBA Fiscal Instrument & Regime Research Database

3.3 Literature Review Methods

Sources for this systematic literature review were found by searching the SFU Library database and Google Scholar using the keywords “Impact Benefit Agreement”, “IBA”, “Community Benefit Agreement”, “Negotiated Agreement”, “Indigenous”, “Aboriginal”, “Negotiation”, “Standards”, “Benefits”, “Compensation”, “Fiscal”, “Financial”, “Economic”, “Monetary” in various combinations. These keywords were also searched in Google to identify sources from non-peer reviewed journals. Finally, the list of sources was rounded out by consulting the reference lists from the papers found during the preliminary search and identifying additional relevant sources. The literature summarized in this chapter is presented chronologically and thematically, specifically looking at the best practices and standards for fiscal benefits provisions that have developed over time. Based on the literature reviewed, I propose three benchmark standards for fiscal benefits that are aligned with the direct fiscal regimes of other levels of government and one that is based on precedent setting agreements.

3.4 Best Practices and Standards for Fiscal Benefits Provisions from the IBA Literature

O’Reilly & Eacott (1998) summarize the proceedings of a National Workshop on IBAs in this early IBA paper. This workshop served to provide Aboriginal IBA participants with a forum in which to share early IBA experiences and increase their effectiveness. The authors summarize a number of the early agreements that were discussed at the workshop, the most relevant IBA being the Raglan Agreement which was signed in 1995. This was one of the first benefits agreements signed in Canada (Glencore, n.d.a), is available to be reviewed by the public, and is often considered the benchmark standard for benefits distributions (Wall & Pelon, 2011; Glencore, n.d.a). The Raglan Agreement is discussed in more detail in section 3.5, but as one of the few publicly available agreements with a known quantum of payments, it is likely that the Raglan agreement has served as a standard for many Indigenous communities negotiating mining IBAs. O’Reilly & Eacott also summarize group discussions on revenue sharing and identify another potential financial benefits standard from the Nunavut and Yukon. In both of these territories, First Nations are entitled to a share of mineral, oil, and gas royalties from projects on Crown land. The specific redistribution of

benefits, and apparent government standard, is 50% of the first $2 million in Crown royalties and 5% of all Crown royalties thereafter. This standard however is part of a larger land claims settlement in the North and is less likely to be used as a stand-alone IBA standard.

Kennett's (1999) paper serves to summarize and analyze IBA negotiation and implementation issues and suggest policy related to these issues. In this paper, prepared for the Department of Indian Affairs & Northern Development, Kennett pays particular attention to cash payments arising from IBAs noting that there is a lack of clarity around appropriate methods for determining the appropriate magnitude of payments. The conventional method of unstructured bargaining over cash payment amounts results in the relative bargaining power of each party and/or the expected profitability of the project (as presented by the developer) serving as the *de facto* negotiating standards for cash payments. Kennett recognizes that a process is needed to determine what an equitable amount of cash benefit payments are and suggests coordination with the federal government's fiscal tax and royalty regimes as an appropriate and logical means of distributing project benefits. However, he cautions that a tax and royalty regime needs to be designed so that it is predictable and does not constitute an impediment to development.

One of Kennett's suggestions on how to do this is to tie the fiscal regime to profitability so that marginal projects are not unduly penalized. Consistent with this argument, Kennett does not advocate for predetermined fixed annual payments as they may exist outside the objective of neutral governmental tax and royalty regimes. However, recognizing that fixed annual payments are frequently negotiated as the form of payment in IBAs, Kennett proposes several best practices for considering fixed payments alongside tax and royalty payments. First, Kennett suggests that a predictable maximum total financial obligation should be established on mining companies through the combination of taxes, royalties, and fixed payments. Second, IBA policy should require fixed payments to be linked to specific metrics such as project profitability or revenues. Third, payments should be calculated using established principles and processes as a means to disseminate the perception that fixed payments are "payoffs" as opposed to benefits distributions. Fourth, Kennett cautions that these fixed payment principles should only be strictly considered for benefits distributions and are unrelated to the principles underlying compensation for impacts While Kennett does

not go so far as to suggest what these principles and processes should be, this paper is one of the earliest sources to address financial payments and suggests the use of established fiscal regimes (namely, the federal mining taxation and royalty regime) as a standard for calculating IBA fiscal benefits payments.

Sosa & Keenan's (2001) seminal paper provides an IBA overview and expands on early IBA research by incorporating perspectives from First Nations that have been involved in IBA negotiations as well as perspectives from independent organizations such as MiningWatch Canada. The article's specific discussion of financial and equity provisions offers little specificity on what these provisions should look like, but does note that the lack of formal regulatory guidelines for the negotiation of IBA provisions leads to inconsistent outcomes. The authors conclude by recommending that IBAs be as specific as possible and that their purpose is to ensure that a community receives a share of the wealth generated on a community's territory.

Shanks & Lopes' (2006) research report fort the Public Policy Forum is specific to the negotiation of IBAs, the role of IBAs in resource development, and the alignment of private and public interests. A key point from the analysis is the "very obvious" fact that IBAs are negotiated without any guidelines or rules. The report notes that informal information sharing amongst First Nations has led to precedents being set each time a new IBA is signed and previously negotiated outcomes (whether positive or negative) being used as benchmarks even when the circumstances of the development differ. Furthermore, the tendency to use previously negotiated outcomes as a base case to indiscriminately adjust benefits upward creates an IBA negotiation environment that taxes resources and is riddled with antagonistic behaviour.

Egre, Roquet & Durochet (2007) focus their paper on dam development in Quebec, but the discussion on returning resource revenues to local communities is applicable across all resource sectors. The author's review international literature and identify five mechanisms that can be used to return resource rents to communities, specifically contextualized to dams:

(1) Redistribution of part of the dam's revenue to local or regional authorities in the form of royalties tied to power generation or water charges;

(2) Establishment of development funds financed from power sales;

(3) Part or full ownership of the project by local populations (equity sharing);

(4) Levying revenue generating property taxes by local authorities; and

(5) Granting preferential electricity rates and fees for other water related services to local companies and local populations.

While this paper lacks specificity as to what quantitative benchmarks should be used for these mechanisms, it is one of the few papers that suggests levying property taxes as an instrument for capturing resource revenues. It also highlights the need for project and industry specific recommendations on appropriate fiscal instruments to employ through benefits agreements.

Diges (2008) presents IBAs as "living documents" that must both anticipate a range of future outcomes as well as retain enough flexibility to evolve as circumstances change over time. The focus of this paper is largely on the challenges of amending an IBA once it is agreed upon as well as enforcement and implementation issues. However, Diges makes some specific points on financial clauses that merit review. Specifically, Diges notes that one of the main difficulties in IBA negotiations is developing an appropriate financial model that balances both the fiscal mechanism decisions with the capacity of both sides at the negotiating table. For this reason, Diges states a uniform standard for IBAs needs to be developed which would help to streamline the negotiation process and allow the parties to focus on issues unique to their situation. While this recommendation does not come with any specificity, the call for standards and uniformity in IBA negotiations is made clear.

Irlbacher-Fox & Mills' (2008) discussion paper on devolution & resource revenue sharing provides an overview of progress made in Canada's North on sharing the benefits of resource development with multiple layers of government and promoting intergenerational equity. The paper draws on the experiences of Indigenous governments in the Yukon, Northwest Territories, and Nunavut who have seen their political presence grow in line with increasing regional administration and control of lands and resources in the territories. Historically in the North, resources have been developed with national as opposed to local interests in mind. However, as territorial and Indigenous governments have reached self governance agreements, there have been growing calls for the sharing of resource revenues. The questions on the revenue

split between government layers and applicable royalty rates are still to be addressed. Canada's policies have typically favoured lower royalty rates for Northern resource extraction, but a report authored by the Pembina Institute has found that higher royalties and taxes in other jurisdictions do not appear to discourage resource development (Taylor et al., 2004). Irlbacher-Fox and Mills make two important points in this paper. First, they recognize Indigenous communities are government entities that have a right to share in resource revenues. Second, they compare royalty rates between jurisdictions with the inference that Indigenous governments have a right to similar resource royalty revenues collected by territorial and provincial governments. The authors do not answer the question about what royalty rate should be used in Northern resource development.

Browne & Robertson's (2009) guide to benefit sharing agreements in B.C. is intended to support the successful negotiation and implementation of benefits agreements and ultimately contribute to enhancing ecosystem based management. The authors of this guide note that financial provisions in benefit sharing agreements are frequently centred around acknowledgment and accommodation of Aboriginal rights and financial compensation is regularly used as a way to privately address unsettled Aboriginal land claims. Regardless of the motivation to negotiate financial benefits, the patchwork of *ad hoc* compensation packages seen in B.C. suggests that there are large discrepancies in outcomes and that the playing field is not always level at the negotiation table. Browne & Robertson do not explicitly suggest ways in which to mitigate these challenges but do suggest that profit sharing and royalty arrangements should be proportionate to the project and degree of impact, proportionate to the royalties and taxes paid to other governments, and within a reasonable range of what a company can bear to remain competitive.

Caine & Krogman (2010) analyze IBAs through a lens grounded in the theory of power dynamics and show that IBAs, despite their good intentions, are mechanisms that fail to overcome power inequalities at the negotiating table and ultimately favour project proponents. This analysis does not specifically address financial provisions, but does more broadly note that Indigenous communities are particularly disadvantaged in negotiating for equitable benefits when they lack the resources, information, or past experiences that industry representatives have. In this sense, tools and best practices that can be employed to level the negotiating table are of critical importance for fiscal benefits negotiations.

Gibson & O'Faircheallaigh's (2010) IBA Community Toolkit is a valuable resource for communities looking to understand and negotiate IBAs. The authors devote a section of their toolkit to the monetary aspects of IBAs and suggest best practices for negotiating financial benefits, which have been detailed in Figure 3.1.

Figure 3. 1 Best practices for negotiating financial benefits from Gibson & O'Faircheallaigh (2010)

- Financials payments must cover the current and expected impacts (environmental, cultural, and economic) of the resource development.
- Communities should receive additional compensation if the impacts are greater than expected and/or the development increases in size.
- The company should pay so many dollars to a community for each hundred that the company gets for the resource.
- Financial payments must be made over the life of the [project]mine.
- A minimum payment should be made to a community each year.
- Payments must be paid two times a year.

These recommendations appear to be somewhat arbitrary and do not distinguish between resource revenue sharing and impact compensation. Nonetheless, they lay the groundwork for communities looking for guidance on negotiating financial benefits. Gibson & O'Faircheallaigh also note that the extent of the financial benefits received can often be a function of the strength of the community bargaining position. Using an appropriate financial model (or combination of models) and understanding the risk profile of a development and developer are two ways that a community can strengthen its bargaining position. Furthermore, it is very important for communities to consider which fiscal instruments will best serve their interests and balance payment stability with community funding requirements. The recommendations on financial benefits from this toolkit are useful as general information, but as a comprehensive guide to IBAs, this toolkit lacks specificity on what financial models and standards should be employed to achieve desired financial outcomes.

O'Faircheallaigh (2010b) acknowledges that the use of contractual agreements between mining companies and Aboriginal communities are now commonplace in Australia and Canada and that these agreements raise issues regarding Aboriginal relations with other political institutions. The paper reviews a significant number of IBAs, including many that are confidential but which the author had privileged access to

through his role as either a negotiator or researcher. From this review a number of strategies are presented to maximize benefits for community development. O'Faircheallaigh does not propose a specific benchmark to be used for maximizing fiscal benefits, but does highlight the 2001 Cape York agreement from Northern Queensland, Australia as an agreement that has generated long term income streams from a mining development. Under this agreement, the Indigenous signatories have established capital funds used to support intergenerational wealth by investing 50% of their revenues in long-term investment funds. Interest income from the investment funds can be used to fund community expenditures while the capital base remains intact. The Cape York agreement is presented as an IBA that maximizes fiscal benefits and the standard that is effectively being presented is one where fiscal benefits provide a minimum amount needed to support intergenerational capital funds tied to community development spending requirements. However, this approach may not be scalable and requires sophisticated levels of planning, cooperation, and governance.

O'Faircheallaigh & Gibson (2012) provide an assessment of the issues and choices facing Indigenous communities when designing mineral taxation regimes with a specific focus on economic risk. The authors highlight how unlike standardized state taxes, Indigenous mineral taxes are imposed on a case by case basis and can be tailored to specific circumstances within the limits of feasibility. The author's note, however, that there is little guidance in the literature on Indigenous peoples and mineral taxation. There is a specific absence of published research on approaches that can be used to extract financial benefits from resource projects while recognizing the particulars of a given project and a given community's needs. The typical design of an Indigenous taxation regime is based on the preferences of leaders, the influence of technical advisers, or precedents from early agreements. The resulting regimes tend to be relatively standardized and used across a number of different projects and regions. There is room for a taxation regime to be designed and negotiated in such a way that it can be specific to a project which will then render it more acceptable to both sides. There is however no suggestion of best practices on tailoring a taxation regime to a specific project or community, beyond the notion of managing various types of risk.

Bradshaw & Wright's (2013) Gap Analysis Report identifies knowledge gaps in the IBA literature and areas of future research. While the report does not spend any significant time on the financial aspects of IBAs, the author's note an applicable piece of

research from an O'Faircheallaigh study. It is assumed in the negotiation process that all parties will seek to maximize their potential for economic benefits. This economic rationality should theoretically lead to desirable economic outcomes for Indigenous communities, but the empirical evidence suggests that that is not always the case (O'Faircheallaigh, 2000). O'Faircheallaigh explains this as the result of a lack of perfect information which inhibits the development of economic maximization strategies. Bradshaw & Wright use O'Faircheallaigh's study to formulate a research question on the amount of information that is shared between companies and communities, but the question can also be extended to consider what tools and models are shared and how these could be used to develop an economic maximization strategy.

Suderholm & Svahn (2014) present empirical research on the impacts of mining on regional development as well as the role of various benefit sharing instruments. The impacts of mining are determined by forward, backward, final demand, and fiscal linkages to regional economic activity, with fiscal linkages being the tax and royalty revenues used by governments to develop infrastructure. The authors note that government developed infrastructure usually benefits mining companies, but also spills over to other companies and households as well in ways that are specific to each development. Mining revenues have historically been appropriated by central governments and financial benefits that trickle down to regional communities only come through centralized government spending. However, in the last two decades, the rise of sustainable mining practices has induced tripartite discussion amongst companies, communities, and governments in order to make mining more inclusive. Benefits sharing regimes have emerged as tools to ensure that economic benefits from mining are retained locally. Suderholm & Svahn note that the literature on the trade-offs between various types of benefits sharing instruments is sparse and instead focuses on the management and allocation of resource revenues over time. Their specific recommendation is to employ the use of investment funds in order to make resource wealth permanent and support regional sustainable development in perpetuity. The author's specific best practices for the use of investment funds are highlighted in Figure 3.2.

Figure 3. 2 Best Practices for the use of investment funds in the delivery of fiscal benefits from Suderholm & Svahn (2014)

- Have a clearly defined strategic vision for the fund, outlining its role as a development actor in the local environment
- Make the fund single purpose (i.e., either community investment, compensation or government transfers, but not a combination)
- Have a representative multi-stakeholder governing body
- Maintain high levels of co-financing and collaboration
- Incorporate transparent practices and associated accountability on how the revenues are used
- Avoid excessive expenditures beyond a regional economy's ability to absorb them productively
- Use efficient administrative structures to maximize development delivery
- Remain flexibility to adapt to changing development practices and operating conditions
- Design of taxation regimes that allow the regional government to capture a share of the mineral rents without discouraging investment

Importantly, in this paper the authors note that there is already extensive literature on designing efficient and acceptable taxation regimes and thus conclude that a standard for fiscal benefits based on already developed taxation regimes is most appropriate.

O'Faircheallaigh's (2016) book, *Negotiations in the Indigenous World,* provides a comprehensive assessment of negotiated agreement outcomes and factors that influence outcomes. The key research development in this book is criteria for the evaluation of negotiated outcomes as opposed to negotiating processes. This distinction is key because it is not the agreements themselves which represent the outcome, but it is the product of the clauses in the agreements. For example, in terms of fiscal benefits, the financial provisions within an IBA shape the quantum and form of payments and the ultimate impact these payments have. O'Faircheallaigh's evaluation of fiscal outcomes from Canadian & Australian agreements reviewed revealed that total IBA payments ranged from 0-3.05% of total project revenues and that total payments of 2-3% of revenues could be considered a highly favourable negotiated outcome for Indigenous communities. This is an important standard for fiscal benefits because it is scalable to projects of varying sizes. However, at the same time it reinforces the notion of standards that are based on previously negotiated outcomes and does not provide any idea of what Indigenous communities could be getting. O'Faircheallaigh himself shows that of the 45 agreements he reviewed, 33 agreements (73%) provided fiscal payments

of less than or equal to 1% of project revenues. This fact again highlights that there may be a sizeable gap between the fiscal benefits Indigenous communities are currently receiving versus what they could be negotiating for.

O'Faircheallaigh (2018) provides a systematic analysis of the ways in which mineral revenues can support positive community outcomes. Using examples from Australia and Papua New Guinea, O'Faircheallaigh presents initial theoretical insights and attempts to lay a foundation that supports informed choices about the use and management of mineral revenues. While O'Faircheallaigh doesn't provide any specific quantitative recommendations on how to negotiate for fiscal benefits, he notes that fiscal benefits can create significant planning obstacles, consistent with literature on the resource curse. Resource revenues can create false prosperity, especially when prices increase sharply and generate windfall payments, and this undermines prudent financial planning, encourages wasteful behaviour and disincentivizes savings. O'Faircheallaigh suggests the employment of mechanisms that guarantee savings and investment as a best practice to avoid the pitfalls of the resource curse. Quantitative specificity is again lacking in this recommendation.

Rodon, Lemus-Lauzon, & Schott (2018) focus on strategies for IBA revenue allocation within communities. The authors of this paper suggest that revenues received from resource development should be grounded in sustainability principles, specifically the Hartwick rule which states that rents arising from resource development should be reinvested in productive capital that can benefit future generations (Hartwick, 1977). The authors are therefore suggesting that a standard for financial distributions is an amount equivalent to the natural capital that is lost plus the environmental damage caused as a result of resource development. While this is an appropriate method of mitigating impacts, it does not define the appropriate share of revenues that communities should derive from resource development and is thus not a comprehensive standard that can be used for IBA fiscal benefits negotiations.

The Gunton et al. (2020) guidebook is intended to help communities negotiate a fair distribution of revenues from resource development. The focus of the guidebook is on evaluating fiscal instruments (see Table 3.2) based on multiple criteria (see Table 3.1) and on providing strategies to design fair fiscal regimes that maximize revenue distributions and capture economic rents. This guidebook is an important piece of

literature that addresses the fiscal components of IBAs and bridges the knowledge gap that frequently separates industry actors from Indigenous communities. A standard for fiscal benefits is introduced which is based on the economic rents generated by a project. Indigenous communities should seek a quantum of benefits that is equal to a specified percentage of the rents generated and capture these rents through the employment of various fiscal instruments that meet community objectives. The guidebook also provides salient recommendations on negotiating a fiscal regime, which have been summarized in Figure 3.3.

Figure 3. 3 Recommendations for designing IBA fiscal regimes adapted from Gunton et al. (2020)

- Identify explicit community objectives and develop a proposed fiscal regime based on the predetermined community objectives. Understand that an optimal fiscal regime will both meet predetermined community objectives and respond to the economic characteristics of a development
- Consider the design of a fiscal regime alongside the other proposed benefits provisions (such as employment or community services) to allow for a complete assessment of the tradeoffs between IBA benefit options
- Weight the relative importance of fiscal regime objectives and community objectives when comparing IBA benefit options
- Utilize precursor agreements with developers that provide funding for project economic evaluation and fiscal instrument evaluation
- Develop a financial feasibility model to test various fiscal regimes against community objectives and the use the results of the model to identify a preferred fiscal regime. A preferred regime will likely use multiple fiscal instruments and will have a high benefit to cost ratio (from the perspective of both the community and the developer)
- Ensure that the IBA provides funding at fixed points in the project, so that community revenue is provided if a project is not completed
- Consider options for reducing administrative burden by “piggybacking” on senior government systems when possible
- Ensure that fiscal regimes which are integrated into IBAs are legally enforceable and are able to be monitored, audited, and revised as required

3.5 Best practices and standards for fiscal benefits provisions from the SFU IBA Fiscal Instrument & Regime Research Database

As noted in the literature, *de facto* standards for IBA benefits have evolved based on precedent and informal word of mouth information sharing (Shanks & Lopes, 2006). As such, this section of the literature review constitutes a survey of the financial benefits presented in publicly available benefits agreements in Canada. The SFU IBA Database compiles benefits agreements from around the world and in a range of sectors. Prominent, publicly available Canadian benefits agreements, where financial compensation forms a significant component of the total benefits package are reviewed.

3.5.1 Publicly Available IBAs

Raglan Agreement

The Raglan Agreement was one of the first benefits agreements in Canada signed between a private mining company and Indigenous groups impacted by development (Glencore, n.d.). The mine owner at the time, Falconbridge Ltd., signed the Raglan Agreement in 1995 with five corporations representing local Indigenous interests (Glencore, n.d.). The Raglan mine is a nickel/copper mine operating in the Nunavik region of Northern Quebec and production commenced in 1997 (MDO, n.d.). The mine's initial capital cost was $600 million and had an expected lifespan of 15 years (Glencore, n.d.) The mine's lifespan was later revised to 23 years with production ending in 2020; however, further mineral reserves have been identified and there are now plans to expand the mine further via two new underground extraction sites (MDO, n.d.). For the purposes of this review and analysis, only the initial 15 year mine lifespan is considered. This is to maintain consistency between agreed upon benefits and project expectations at the time the Raglan Agreement was signed. The financial benefits provided by the Raglan agreement are detailed in Figure 3.4.

Figure 3. 4 Financial benefit details from the Raglan Agreement

Guaranteed First Allocation:

- $1,000,000 paid 30 days following the decision and/or approval to proceed with the project
- $1,000,000 paid 30 days after commercial production begins

- $1,500,000 paid at a rate of $300,000 per year for the first 5 years of production
- $2,500,000 paid at a rate of $500,000 per year for years 5-10 of production
- $4,000,000 paid at a rate of $800,000 per years for years 11-15 of production

Guaranteed Second Allocation:

- $4,125,000 paid at a rate of $275,000 for years 1-15

Additional Fixed Payments:

- $500,000 paid at a rate of $50,000 per year for 10 years

Profit Sharing:

- 4.5% of operating cash flow per year. Estimated at $60,00,000 in total based on the mine's initial 15 year lifespan (O'Reilly & Eacott, 1998)

Using these figures, total financial compensation derived from the Raglan Agreement is estimated to be $74,625,000, with $14,625,000 in fixed payments and $60,000,000 in variable payments. On a relative basis, the financial payments from the Raglan Agreement are 12.4% of the initial capital investment.

Mary River Project Inuit IBA

The Mary River Project is an iron ore mine located in the Qikiqtani region of Nunavut (Baffinland, n.d.a). Nunavut law requires project developers to sign IBAs with Indigenous communities when development takes place on Inuit land. The Mary River Project Inuit IBA was signed in 2013 between Baffinland Iron Mines Corporation and the Qikiqtani Inuit Association (a regional community organization representing Indigenous interests) (Baffinland, n.d.b). This project had an initial capital cost of $740 million and an expected lifespan on 21 years, with production starting in 2015 (Loxley, 2019). The financial benefits provided by the Mary River Inuit Agreement are detailed in Figure 3.5.

Figure 3. 5 Financial benefit details from the Mary River Inuit IBA

Advance Payments:

- $5,000,000 paid upon the signing of the IBA
- $5,000,000 paid upon the issuance of the water license
- $10,000,000 paid once the construction decision is made
- $10,000,000 paid at a rate of $1,250,000 quarterly for the 8 periods between the construction decision and the commencement of production

- $2,000,000 paid at a rate $1,000,000 per year for the first two year and for the purposes of an Education & Training Fund
- $2,250,000 paid at a maximum rate of $375,000 per year to match dollar for dollar the contribution by the Qikiqtani Inuit Association to the Education & Training Fund
- $750,000 paid to establish a Wildlife Compensation Fund

Extension Payments:

- $500,000 paid at a rate of $250,000 per year for the 2 periods between the signing of the IBA and the start of commercial production for the purposes of a Business Capacity and Start Up Fund
- $525,000 paid at a rate of $25,000 per year for the life of the mine for the purposes of a scholarship fund

Royalties:

- 1.19% of Net Sales Revenue

Estimates of the total financial compensation expected to be achieved through the Mary River IBA range from $175,00,000 to $363,000,000 (Adebayo & Werker, 2020). However, it is worth noting that although the final capital cost for the project was $740 million, the financial compensation estimates are based on the original project capital cost of $4.1 billion (Adebayo & Werker, 2020; Loxley, 2019). The primary fiscal instrument used to deliver fiscal benefits through this IBA is an ad valorem royalty and consequently, while the magnitude of the final compensation figure is not conclusively known, it is scalable to the size of the project and production. Therefore, on a relative basis, the financial compensation figures range from 4.3% to 8.8% of the project capital cost. Adebayo and Werker (2020) also estimate the royalty payments as a percentage of revenue to be 1.06%, which they suggest may an indicative estimate of the level of fiscal benefits that a mining company must share in order to prevent the community from opposing a mine development.

Coastal GasLink IBAs

The Coastal GasLink pipeline is an approved and under construction natural gas pipeline project that will transport natural gas from North Eastern B.C. to a liquid natural gas (LNG) facility near Kitimat B.C. (Province of British Columbia., n.d.a). This project is currently under construction at a capital cost of $6.6 billion. IBAs have been signed with 20 First Nations communities along the pipeline route (TransCanada, n.d.), but these agreements are confidential and limited information is publicly available. However, a

recent Globe & Mail investigation determined that five Wet'suwet'en band councils would receive cash distributions totaling $4.6 million per year (or approximately $920,000 per band council per year) (Jang & Stueck, 2020). It is not known what other band councils along the pipeline route have agreed to and it is difficult to assume that all band councils have signed equivalent IBAs since they did not negotiate as a group; however, as a simple measure to estimate the total cash distributions associated with this project an additive approach has been used. Therefore, the cash distribution estimate for each of the 20 Coastal GasLink IBAs is assumed to be $920,000 per year or $18.4 million per year in aggregate. These figures are summarized in Figure 3.6.

Figure 3. 6 Financial benefit details from the Coastal GasLink IBAs and PBAs

Annual Legacy Payments:

- $18,400,000 paid annually

This pipeline has a lifespan that will likely exceed 40 years; however, assessing the project in its first 20 years of operations provides an estimate of the total financial benefits derived from IBAs of $368,000,000. On a relative basis, the Coastal GasLink IBAs return 5.6% of invested capital in the form of Indigenous financial benefits.

3.5.2 Other Publicly Available Benefits Agreements

Coastal GasLink PBAs

In addition to the IBAs, there are also Pipeline Benefits Agreements (PBAs) signed between the Province and First Nations communities which provide additional financial benefit distributions over and above what the IBAs provide. The PBAs are part of the Province's resource revenue sharing program and while there is no direct linkage between the Province to First Nations PBAs and the project proponent to First Nations IBAs (Clark, 2009), the PBAs offer another resource revenue sharing standard. The PBA financial benefit distributions can be considered independently or in conjunction with the IBAs. The financial benefits provided by these PBAs are shown in Figure 3.7.

Figure 3. 7 Financial benefit details from the Coastal GasLink PBAs

Project & Additional Payments:

- $38,257,000 paid at various completion stages on construction

Ongoing Benefits:

- $10,000,000 paid annually following the first anniversary of the in-service date

The payment amounts are to be split between 15 first Nations who have signed PBAs on a yet to be determined proportional basis. Assessing the project in its first 20 years of operations provides an estimate of the total financial benefits derived from PBAs of $238,257,000. On a relative basis, these PBAs return 3.6% of the capital invested in financial benefits.

If the Coastal GasLink PBAs and IBAs are considered together, the total financial benefit distributions associated with this project are estimated to be $606,257,000 or 9.2% of the invested capital.

Prince Rupert Gas Pipeline PBAs

Like the Coastal GasLink Pipeline project, the Prince Rupert Gas Transmission Pipeline project is a natural gas pipeline that is intended to deliver natural gas from North Eastern B.C. to an LNG processing facility near Prince Rupert (Province of British Columbia., n.d.b). This project has a forecasted cost of $5 billion, but is unlikely to proceed in the near future. Nevertheless, PBAs were signed between the Province and First Nations communities. If the project was to proceed, these PBAs would be supplemental to IBAs signed between the developer and First Nations communities. The financial benefits provided by the PBAs are noted in Figure 3.8.

Figure 3. 8 Financial benefit details from the Prince Rupert Gas Pipeline PBAs

Project & Additional Payments:

- $41,600,000 paid at various completion stages of construction

Ongoing Benefits:

- $10,000,000 paid annually following the first anniversary of the in-service date

Again, this pipeline would likely have a lifespan in excess of 40 years, but using the first 20 years of operations to provide an estimate of total benefits gives a figure of $241,600,000, or 4.8% of the capital investment.

3.6 Summary

While the amount of literature on IBAs has increased significantly since the first studies were published in the late 1990s, clear gaps in knowledge still persist (Bradshaw & Wright, 2013). The usefulness of standards and base case scenarios for negotiating IBAs has been suggested multiple times (Diges, 2008; Siebenmorgen & Bradshaw, 2011), but there remains a lack of consensus on what these standards should be. Particularly with respect to financial provisions in IBAs, the literature lacks specificity on what an appropriate financial package is comprised of and instead primarily focuses on management and use of resource revenues within communities (Suderholm & Svahn, 2014; O'Faircheallaigh, 2018; Rodon et al., 2018). One notable exception to this is the Gunton et al. (2020) guidebook, which evaluates fiscal instruments used in IBAs, their ability to capture economic rents, and ultimately their ability to fairly distribute resource revenues. Regardless, the preeminent method for obtaining and/or distributing financial benefits from resource development largely remains a function of the relative power and capacity of each party at the negotiating table (Kennett, 1999). This is even true for the public, government to government resource revenue sharing agreements in B.C (Pendakur & Fiser, 2017). The outcomes that result from this are highly variable, can impede planning, and perpetuate the resource curse (O'Faircheallaigh, 2010b; O'Faircheallaigh, 2018). Of the studies that highlight positive community outcomes through case studies (O'Faircheallaigh, 2016; O'Faircheallaigh, 2010b; Wright & White, 2012), the focus of the analysis is typically limited to what the outcome is and to a lesser extent, what cultural or institutional variables led to a positive community outcome (O'Faircheallaigh, 2018). No study considers what the community outcome could have been, relative to what it actually is, particularly if objective standards are considered as evaluation criteria. While all prior studies on financial distributions do provide useful knowledge, they are of limited practical use for a community actively attempting to negotiate for financial benefits.

The lack of quantitative standards for financial benefits is predicated by a lack of consensus on what the purpose of financial benefits are and what rights First Nations

communities have to receive financial benefits. Early scholarship on this has focused on the use of financial benefits to acknowledge Indigenous land claims and other rights (O'Reilly & Eacott, 1998; Sosa & Keenan, 2001; Browne & Robertson, 2009), but the more cynical question of "how much money will it take to get the project the green light" has also been posed (Bradshaw et al., 2016). In their early days, IBAs were seen from a developer's perspective as a means to exclusively provide compensation for specific impacts, such as the loss of habitat, but not as a way to share resource revenues (Shanks & Lopes, 2006). Revenue sharing was considered a government duty and a commonly held industry view was that if a company is already paying royalties and taxes to provincial and federal governments, these entities should share revenues with Indigenous governments (Shanks & Lopes, 2006; Browne & Robertson, 2009). Although these sentiments remain, the more contemporary view is that IBAs provide both compensation for specific impacts, a chance for Indigenous communities to share in locally generated resource revenues, and an efficient mechanism for developers to secure Indigenous consent to a project (Gibson & O'Faircheallaigh, 2010; Levitan & Cameron, 2015). Irlbacher-Fox and Mills (2008) highlight that this is in keeping with the trend towards devolution and the right for lower levels of government, particularly Indigenous governments, to share in resource revenues.

I uphold the contemporary view that First Nations are a level of government and therefore have a right to share in resource revenues at a local level and should negotiate IBAs as government entities. In line with this, the literature points to employing fiscal instruments and designing fiscal regimes based on already accepted government standards (Kennett, 1999; Irlbacher-Fox & Mills, 2008; Browne & Robertson, 2009; Suderholm & Svahn, 2014; Gunton et al., 2020). Recognizing First Nations governments in this manner suggests that their responsibilities to provide services are commensurate with other levels of government. This does of course segue into a wider discussion on the autonomy and capacity of First Nations governments and the function of IBAs compared to more traditional tax and royalty regimes, yet, IBAs are the tools that First Nations governments have at their disposal today. They should be used in such a manner to obtain a fair share of local resource revenues.

I propose four benchmarks to evaluate a quantum of IBA benefits (Figure 3.9). Three of the benchmarks (see Figure 3.9, points 1-3) are based on the direct fiscal regime standards of other levels of government. As these benchmarks are tied to the

federal, provincial, and municipal fiscal regimes of a single resource development project, they represent a modest proportion of the total revenues generated by these three tiers of government. The benchmarks do however represent a larger portion of the incremental direct tax payments paid by major project developers to all levels of governments.

Figure 3. 9 Applicable benchmark standards for determining a quantum of IBA fiscal benefits

1) Amounts comparable to revenues generated by federal government mineral and corporate income taxes
2) Amounts comparable to revenues generated by provincial government mineral and corporate income taxes
3) Amounts comparable to revenues generated by municipal government property taxes
4) Amounts comparable to revenues generated by Indigenous governments through comparable IBAs and other revenue sharing agreements

The fourth benchmark (see Figure 3.9, point 4) is based on the precedents set in other IBAs. Although the number of IBAs signed in Canada is now estimated at over 450 (NRCAN, 2019) it remains incredibly difficult to obtain even the most basic information contained within them, let alone the details (NDMF, 2013). The Raglan and Mary River IBAs offer a rare glimpse into agreement specifics and thus allow for comparative analysis of agreements to be conducted. To a lesser extent, the known financial details about the Coastal GasLink IBAs allow for the same. The natural gas pipeline PBAs offer another opportunity for comparative analysis, although this is qualified by the fact that the provincial resource revenue sharing program is supplemental to the confidential IBA revenue sharing agreements negotiated between First Nations and the pipeline companies. The comparable agreement benchmark offers a tangible range of fiscal benefit quantums that can be used as alternate fiscal benefit indicators for comparative purposes. This type of analysis is useful if the other benchmarks are unable to be calculated or are highly uncertain.

3.7 Additional Considerations

It is worth noting that the benchmarks I propose are just one set of possible benchmarks that exists. There is little research which specifies which benchmarks are most appropriate and I do not attempt to evaluate the appropriateness of the

benchmarks I propose. It is certainly possible that the four benchmarks I identify have limitations that undermine their usefulness. However, given that there are effectively no adequate benchmarks that exist for IBA negotiations today, and as a starting point for the purposes of a heuristic exercise, these benchmarks do allow for an illustrative evaluation of a quantum of IBA benefits relative to the range and magnitude of project benefits delivered to other parties.

In addition, the direct fiscal regime benchmarks I propose only capture the corporate income tax payments and property tax payments on a resource development project, which are not necessarily a measure of the economic rent generated and redistributed to government. In many resource development scenarios (such as mining or forestry), a benchmark standard based on the total economic rent available to be returned to various government entities would be an appropriate benchmark to use as a measure of a project proponent's ability to pay. This is discussed further in the Gunton et al. (2020) guidebook. However, in other resource development scenarios (such as regulated pipelines), rent is not generated, and other benchmarks must be considered. It could however be possible to look at a proxy measure for economic rent, which in the case of regulated pipelines could be derived by looking at the incremental revenue (netbacks) that accrues to producers per barrel of oil sold resulting from the pipeline development. This is an alternative benchmark that merits consideration and is again, a measure that could be used in a heuristic exercise to compare a quantum of IBA benefits to the magnitude of rents and overall project benefits generated.

It is likely to impossible to define a definitive fiscal benefit standard for IBAs and the benchmarks I propose simply serve to highlight a standard range of benefit quantums that can be used to reference, evaluate, and negotiate IBA fiscal benefit provisions.

Chapter 4. Case Study Context

4.1 Introduction

The Trans Mountain Expansion Project (TMX) is a contemporary crude oil pipeline development project in B.C. and Alberta. The pipeline path crosses the traditional territory and reserve lands of numerous First Nations and this project is a leading contemporary example of the use of IBAs in pipeline development. This chapter introduces TMX and Indigenous rights in relation to the project, which provides context for using TMX as a case study for researching and evaluating the related IBA fiscal benefits.

4.2 Trans Mountain Expansion Project

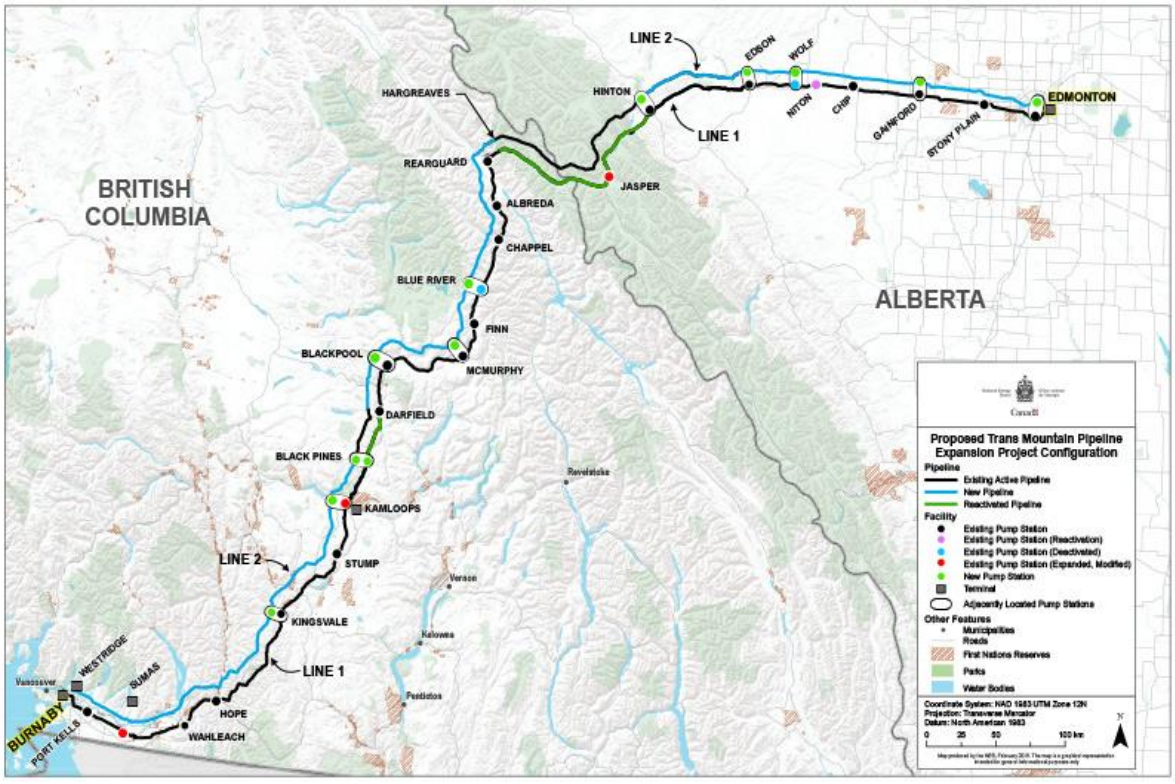
4.2.1 Project Description

The Trans Mountain pipeline system was constructed in 1953 and currently transports a variety of crude oil and petroleum products from production facilities in Alberta to locations in central and southwestern B.C., and Washington State (NEB, 2019a). Much of the refined petroleum products used in B.C. are currently supplied by the Trans Mountain pipeline system (Conference Board of Canada, 2015). The existing pipeline is comprised of a 1,150 km main line running from a tank farm in Edmonton, Alberta to another tank farm in Burnaby, BC. Secondary distribution lines run from Burnaby to a marine loading dock in the Burrard Inlet (the Westridge Marine Terminal (WMT)) and to Washington State (Reconsideration, 2019). 23 pump stations along the main pipeline route maintain the capacity of 300,000 barrels per day (bpd) (Reconsideration, 2019). The existing pipeline was approved in 1951 based on strategic and economic rationale, but the approval process did not include an environmental assessment or consultation with the public and Indigenous groups (Consultation, 2019).

In December 2013 Trans Mountain submitted an application to the NEB to construct and operate TMX (Reconsideration, 2019). In this application, Trans Mountain stated that it had received requests from shippers to increase the capacity of the existing pipeline system in order to transport greater volumes of oil products to the west coast of British Columbia and then on to world markets (Reconsideration, 2019). TMX would

result in the twinning of the existing mainline and add 987 km of new buried pipeline along with 193 km of reactivated pipeline (Trans Mountain, n.d.a). Additional construction activities include building 12 new pump stations, 19 new storage tanks at existing storage terminals, and three new tanker ship berths at the WMT (Trans Mountain, n.d.a). The resulting capacity increases from TMX would see up to 890,000 bpd of crude petroleum and refined products flow through the expanded system (Trans Mountain, n.d.a). Currently, the WMT loads five Panamax tankers (less than 75,000 metric tonnes deadweight tonnage (DWT)) or Aframax tankers (75,000 to 120,000 metric tonnes DWT) per month (Reconsideration, 2019). TMX would result in approximately 34 Aframax tanker loads per month along with a corresponding increase in shipping traffic in the Strait of Georgia, Haro Strait, and Juan de Fuca Strait (Reconsideration, 2019). A detailed project map is shown in Figure 4.1 and a map of the near shore tanker shipping routes are shown in Figure 4.2.

Figure 4. 1 Map of the proposed TMX pipeline route and related infrastructure



Source: NEB, 2019b

Figure 4. 2 Map of inbound and outbound shipping lanes for tanker traffic on the B.C. coast

Source: Consultation, 2016

4.2.2 Project Assessment

As a pipeline that crosses a provincial boundary, Trans Mountain and the expansion project is overseen by the NEB.[4] The NEB's role as defined in the *National Energy Board Act, 1985* is to review energy development applications and make recommendations to the federal government on whether an energy project is in the public interest and should proceed (NEB, 2019b). The NEB's mandate also states that their purpose is to promote safety and security, environmental protection, and efficient energy infrastructure and markets (NEB, 2019b). As part of the NEB's review of TMX, a full EA was completed as required under the *Canadian Environmental Assessment Act, 2012*. Under equivalency and cooperation agreements, British Columbia and Alberta relied on the NEB's EA to make provincial decisions regarding their respective EA

[4] In August 2019 the NEB was replaced by the Canada Energy Regulator (CER), which assumed the NEB's responsibilities

approvals. Additionally, as part of the regulatory process a public hearing was conducted where Aboriginal groups and other organizations were invited to participate in the project review process as either an intervenor or commentator (Reconsideration, 2019).

In May 2016 the NEB issued its recommendation to the federal government to approve TMX with 157 conditions, which the government accepted in November 2016 (Reconsideration, 2019). Subsequently, the project approval was challenged in the court system and set aside by the Federal Court of Appeal in August 2018 (Reconsideration, 2019). In this ruling, the Court stated that project related marine shipping was unjustifiably excluded from the initial review and that the duty to consult had not been adequately discharged as Canada had failed to engage in meaningful dialogue and address the real concerns of impacted Indigenous communities (Reconsideration, 2019). The NEB was then tasked with completing a Reconsideration of the environmental effects, including an evaluation of adverse effects on species at risk due to project related marine shipping (Reconsideration, 2019). As part of this Reconsideration a public hearing was once again conducted, in part to consult with Indigenous groups (Consultation, 2019). The NEB issued its Reconsideration report in February 2019 recommending that the project proceed with 156 conditions to be met and the federal government once again accepted this recommendation in June 2019 (Reconsideration, 2019; Trans Mountain, n.d.a).

4.2.3 Public Interest

Pipelines and Alberta oil sands activity has been one of the most partisan issues in Canadian society over the past decade and TMX has generated significant public interest, both in support of and in opposition of the project (Hoberg, 2016). The NEB formally defines the public interest as:

> *inclusive of all Canadians and refers to a balance of economic, environmental and social interests that change as society's values and preferences evolve over time (NEB, 2019).*

In their recommendation to approve TMX, the NEB stated that the benefits of the project outweigh the burdens, the pipeline is of necessity, and is ultimately in the public interest (Reconsideration, 2019). The main benefits of the project are: access to diverse

markets for Canadian oil; job creation across Canada; development of capacity in local and Indigenous individuals, communities, and businesses; direct spending on pipeline materials; and revenues to all levels of government (Reconsideration, 2019). The main burdens (or costs) include: significant adverse impacts of marine shipping on the Southern resident killer whale and impacts on Indigenous cultural use associated with the Southern resident killer whale; increased greenhouse gas emissions; and potential land and marine oil spills (Reconsideration, 2019).

There has been no shortage of opposition to TMX from environmentalists, many First Nations, some municipal governments (particularly in the Greater Vancouver area), and the incumbent B.C. NDP government (Shaw, 2019; Nickel, 2019). Major protests have taken place on Burnaby Mountain in B.C., which have resulted in more than 100 people being arrested (Keller, 2014; CBC, 2018) and some researchers have argued that the project will actually impose a net cost on Canada and is not in the public interest (Gunton & Joseph, 2019; Gunton et al., 2015). However, at the same time, there is support for TMX from the Alberta provincial government, the federal government (who purchased the pipeline from Kinder Morgan Canada in May 2018), along with various construction and industry associations (Nickel, 2019; ICBA, n.d.). Many First Nations support the project as well, including a coalition of First Nations which has expressed interest in purchasing a majority stake in TMX, recognizing the economic opportunity and chance to exercise control over environmental monitoring (Purdon & Palleja, 2019; Shore, 2019). At a national level, polling in early 2019 determined that 53% of Canadians support the pipeline expansion and by mid 2019 this figure rose to 58% (ARI, 2019). Opinion shifted in early 2020 once revised capital cost estimates were announced and national support dropped to 48% (ARI, 2020).

Assessing the public interest in TMX is immensely difficult, in part because the benefits and costs of the project (particularly those related to marine shipping) are not evenly distributed across the country, or even just across B.C. and Alberta (Reconsideration, 2019; Conference Board of Canada, 2015). Regardless of the NEB's recommendation, it is likely that TMX will remain a divisive project and will continue to face opposition, both through public protests and legal challenges, before the pipeline is constructed and made operational.

4.2.4 TMX Project Timeline

As a major energy project, a number of notable regulatory, political, legal, and public events have occurred to date in the history of TMX. A detailed timeline of these events is presented in Table 4.1.

Table 4. 1 Notable dates and events in the history of TMX

Date	Key Event
May 23, 2013	Trans Mountain files its Project Description with the NEB
August 13, 2013	The NEB writes to 131 Aboriginal groups to inform them of the project and the potential for establishing a hearing process
December 16, 2013	Trans Mountain files its project application with the NEB
January 15, 2014	The NEB begins its Application to Participate process and invites participants to apply for intervenor and commentator status
August 27, 2014	The NEB begins hearing oral traditional evidence on project impacts from Aboriginal groups
September 8, 2014	The NEB begins a supplemental Application to Participate process specifically related to the preferred pipeline corridor through Burnaby Mountain
October 9, 2014	The NEB hears oral arguments from the City of Burnaby on access to Burnaby Mountain
November 2014	More than 100 arrests are made on Burnaby Mountain as protesters attempted to stop construction and drilling work
August 18, 2015	Commenters file letters of comment
August 21, 2015	Public hearings are postponed after the NEB announced it was striking economic evidence prepared by Mr. Steven Kelly due to a conflict of interest. Mr. Kelly was appointed as full time board member of the NEB after previously acting as a consult to Trans Mountain. Trans Mountain is asked to submit replacement evidence
December 14, 2015	Commentators file letters of comment addressing the replacement evidence
December 15, 2015	Trans Mountain files its written argument-in-chief
January 12, 2016	Intervenors file their written argument-in-chief
January 12, 2016	Alberta NDP Premier Rachel Notley provides a written submission that states that TMX is in the public interest of Alberta and Canada

January 27, 2016	The Federal Liberal government announces that the TMX assessment will now take into account greenhouse gas emissions
May 19, 2016	The NEB recommends that the Governor in Council approve the project, subject to 157 conditions
November 26, 2016	Prime Minister Justin Trudeau approves TMX
January 10, 2017	B.C. issues an Environmental Assessment Certificate for TMX
January 11, 2017	B.C. Liberal Prime Minister Christy Clark announces her support for TMX
May 25, 2017	Kinder Morgan makes its final investment decision to proceed with TMX, estimated to cost $7.4 billion
June 29, 2017	The B.C. Liberal government loses a no-confidence vote, which paves the way for NDP leader John Horgan to become premier. A coalition formed by the NDP and Green parties vows to stop the project
August 10, 2017	Former B.C. Supreme Court Justice Thomas Berger is hired by the B.C. NDP government to provide legal advice for challenges to TMX
December 7, 2017	The NEB allows Trans Mountain to bypass Burnaby bylaws despite a failure to obtain municipal permits from the City of Burnaby.
March 15, 2018	The B.C. Supreme Court grants an indefinite injunction preventing protesters from coming within five metres of work sites in Burnaby
March 23, 2018	Green Party Leader Elizabeth May and New Democrat MP Kennedy Stewart are arrested at a protest against the pipeline expansion.
March 23, 2018	The Federal Court of Appeal dismisses a B.C. government challenge to an NEB ruling that allows Kinder Morgan Canada to bypass local bylaws.
April 8, 2018	Kinder Morgan Canada suspends non-essential spending on TMX and sets a May 31 deadline to reach agreements with stakeholders.
May 16, 2018	The federal government offers indemnity to help ease the political risks for any investors to ensure the project could proceed.
May 16, 2018	Alberta passes legislation giving it sweeping power to intervene in oil and gas exports
May 22, 2018	The B.C. government filed a constitutional lawsuit countering an Alberta government bill that would limit fuel being sent to the province
May 24, 2018	The City of Vancouver and Squamish Nation lose legal challenges aimed at quashing an environmental assessment certificate issued by British Columbia for the pipeline expansion.

May 29, 2018	The Canadian government announces that it will buy the Trans Mountain pipeline and expansion project for $4.5 billion
August 30, 2018	The Federal Court of Appeal overturns the Federal government's approval of the pipeline expansion in *Tsleil-Waututh Nation v. Canada (Attorney General)*. In a unanimous decision, the ruling cited inadequate consultation and assessment of marine related environmental impacts as rationale for the decision
September 15, 2018	Natural Resources Minister Amarjeet Sohi orders the NEB to undertake a new environmental assessment of the impact additional oil tankers off the coast of British Columbia will have, with a specific focus on the risks to southern resident killer whales
October 3, 2018	The Federal government relaunches the consultation process and hires former Supreme Court of Canada Justice Frank Iacobucci is hired to oversee the process and provide direction
November 20, 2018	As part of the Reconsideration, the NEB begins hearing oral Indigenous traditional evidence on project impacts from Aboriginal groups
Feb 22, 2019	The NEB releases its Reconsideration report recommending that TMX be approved again, subject to 156 conditions and 16 recommendations
June 18, 2019	The Federal government re-approves TMX with the requirement that all Federal revenues be invested in clean energy and green technology
June 21, 2019	A public comment period where affected parties can provide input on the resumed regulatory processes opens
August 21, 2019	TMX construction resumes
August 28, 2019	The NEB is replaced the Canada Energy Regulator (CER), but its function remains the same
September 6, 2019	The Federal Court of Appeal rules that six Indigenous-led groups will be granted the right to argue against the Federal government's re-approval of TMX
October 10, 2019	Construction resumes at Westridge Marine Terminal
February 4, 2020	The Federal Court of Appeal dismisses the Indigenous led challenge to the Federal government's re-approval of TMX, ruling that the consultation obligation had been met
	…
December, 2022	TMX is expected to be in-service

Sources: Bloomberg, 2018; CTV, 2019; NEB, 2019d; Canada, 2020; Trans Mountain, 2019; Trans Mountain, 2020

4.3 TMX and First Nations

4.3.1 First Nations Rights

The Royal Proclamation of 1763 was the first notable step towards both recognizing Aboriginal rights and establishing treaties. Over two hundred years later, Section 35(1) of the *Constitution Act, 1982* enshrined the recognition and protection of First Nations, Metis, and Inuit rights into law. Rights, under this Act is an ambiguous term and legal challenges through cases such as *R. v. Sparrow, 1990, Delgamuukw v. British Columbia, 1997,* and *R. v. Powley, 2003* have attempted to clarify the nature of Aboriginal rights, but for the most part they remain fact, site, and group specific (Vypovska & Johnson, 2016). Treaty rights are closely related to Aboriginal rights, but are legally distinct as treaty rights are negotiated and can be comprehensively recorded in great detail (Vypovska & Johnson, 2016; BC Treaty Commission, n.d.). In B.C. this is an important point because while the courts have determined that Aboriginal title exists in B.C., they have not determined where it exists (BC Treaty Commission, n.d.), the exception to this being the recent *Tsilhqot'in (Williams) v. British Columbia, 2014* ruling. Treaties that would define the boundaries of Aboriginal lands largely do not exist in B.C. and thus, Aboriginal land title and Aboriginal rights are established on a case-by-case basis in the court system (Vypovska & Johnson, 2016). This has broader implications on the legal relationship between the Province and Indigenous peoples as well.

From the various legal proceedings on Aboriginal rights, a number of important principles are worth identification and have been summarized in Table 4.2

Table 4. 2 Summary of notable rulings on Aboriginal rights

Aboriginal rights exist in law
Aboriginal rights are distinct and different from the rights of other Canadians and include Aboriginal title, which is a unique communally held property right
Aboriginal rights take priority over rights of others, subject only to the needs of conservation, environmental issues, and public safety
The scope of Aboriginal title and rights depends on specific facts relating to the Aboriginal Group and its historical relationship to the land in question

Aboriginal rights and title cannot be extinguished by simple legislation because they are protected by the *Constitution Act, 1982*
Government has a duty to consult and possibly accommodate Aboriginal interests even where title has not been proven and where treaty rights might be adversely affected

Source: Vypovska & Johnson, 2016; Mandell, 1998; BC Treaty Commission, n.d.

An important product of the legal proceedings around Aboriginal rights and title is the increasing expectation of the Crown to consult and accommodate Aboriginal peoples. The duty to consult arises when "the Crown has knowledge, real or constructive, of the potential existence of the Aboriginal right or title and contemplates conduct that might adversely affect it" or when Crown conduct infringes upon treaty rights (*Haida Nation v. British Columbia (Minister of Forests), 2014*). The duty to accommodate arises when there is the potential for a project to infringe upon a strongly held Aboriginal right. Accommodation is intended to take the form of either impact avoidance, minimization, mitigation, with a last resort being monetary compensation (Consultation, 2019).

The Crown's consultation and accommodation approach is typically aligned with the principles of reconciliation, which among other things, seek to: improve relations between Indigenous and non-indigenous peoples in Canada based on mutual respect and recognition; secure FPIC for any actions that may infringe on Indigenous rights; recognize the right to self-determination and self-government and recognize Indigenous self-government as a distinct order of government; and, renew fiscal relationships that support economic partnerships and resource development (DOJ, 2018) The notion of FPIC is adopted from the *United Nations Declaration on the Rights of Indigenous Peoples*, which Canada announced its support for and its commitment to implementation in May, 2016 (Fontaine, 2016). The principles that underlie the requirement for FPIC go beyond those required by the legal duty to consult and The Supreme Court has determined that the standard to secure consent is strongest in the case of Aboriginal title lands (DOJ, 2018). This is particularly relevant in B.C. since First Nations in B.C. have not had their title extinguished through historical treaties. Additionally, the Supreme Court has confirmed that Aboriginal title gives the holder the right to use, control, and manage the land and the right to the economic benefits of the land and its resources (Mandell, 1998). Although, as discussed in chapter 2 there are limits to how far this right extends if future generations are deprived of the benefit of the land.

First Nations have considerable rights and opportunities to influence resource development decisions on traditional lands. This is certainly true for TMX, where First Nations have successfully challenged the project through the court system (see *Tsleil-Waututh Nation v. Canada (Attorney General), 2018,* for instance) on the grounds of inadequate consultation.

4.3.2 TMX and First Nations Consultation & Accommodation

The Trans Mountain pipeline corridor passes through numerous traditional territories and reserve lands in B.C. and Treaty 6, Treaty 8, and Metis territories in Alberta (Trans Mountain, n.d.b). As part of the duty to consult and accommodate, 120 impacted First Nations groups were identified by Canada and the NEB and consulted with (Consultation, 2016). However, as part of the successful legal challenge to the project approval, the Federal Court of Appeal ruled that Canada failed to properly fulfil its legal duty to consult with Indigenous groups. Specifically, Canada failed to engage in responsive, considered, and meaningful dialogue, particularly with six Indigenous applicants (representing 14 groups) who had presented specific and focused concerns that were not adequately addressed (Consultation, 2019). As part of the project Reconsideration, consultation was re-initiated and an additional 12 First Nations were identified as impacted parties. The table in Appendix A shows the First Nations groups identified for consultation.

Broadly, the anticipated project impacts identified during the consultation process are related to: (1) hunting, trapping, and plant gathering; (2) fishing and harvesting; (3) traditional and cultural activities; and (4) Aboriginal title and related governance (Consultation, 2019). The impacts that have received the most public attention are those related to potential terrestrial and marine oil spills and potential impacts on culturally important species, such as killer whales and salmon. However, the wider Indigenous perspective highlights concerns regarding Indigenous ability to enjoy, experience, manage, and use areas disrupted by the project (Consultation, 2019). This concern is widely held but diverse in the specifics raised by Indigenous groups. The consultation process itself has also been criticized by Indigenous groups, some of whom view it as too narrow in scope, fraught with procedural problems, and unable to adequately address cumulative effects from the project and consider traditional laws, spirituality and knowledge of Indigenous groups (Consultation, 2019).

In parallel to the government led consultation, the project proponent[5] also engaged with First Nations impacted by the pipeline. The main engagement activities conducted by the proponent included early project planning & scoping, correspondence with First Nations leadership and representatives, and information sharing on potential impacts (Consultation, 2019). To facilitate engagement, the project proponent provided capacity funding to First Nations groups that were receptive to funding.

One of the identified impacts of the pipeline is the potential loss of current economic interests and future economic opportunities in a given area (Consultation, 2019). The federal government and the NEB have partially mitigated these concerns by requiring Aboriginal and local employment on TMX among similar other requirements. However, the main economic outcome comes from the proponent's engagement activity. The project proponent has signed Mutual Benefit Agreements (MBAs)[6] with 43 First Nations groups as of December 2019 that are expected to deliver approximately $400M in economic benefits to Indigenous groups[7] (Trans Mountain, 2018; Trans Mountain, n.d.c). The listing of groups who have signed MBAs is highlighted in Appendix A. These MBAs are confidential, but include a letter of support for TMX which has been submitted to regulators as evidence of proponent led Indigenous engagement, consultation, and accommodation. The First Nations who signed MBAs did not negotiate as a coalition and each agreement was individually made with the project proponent. The project proponent has indicated that it remains committed to meaningful and ongoing Indigenous engagement throughout the life cycle of TMX (Trans Mountain, n.d.c).

[5] The original TMX project application was made by Kinder Morgan Canada Inc., a subsidiary of Kinder Morgan Inc. In mid 2018, the Government of Canada purchased the Trans Mountain pipeline system and related expansion project and have retained ownership since through a Crown Corporation.

[6] Mutual Benefit Agreements (MBAs) are synonymous with Impact Benefit Agreements (IBAs). The two terms will be used interchangeably in this report.

[7] The exact number of MBAs that have been signed remains unclear. In 2016, the President of Trans Mountain claimed that 51 MBAs had been signed; however, nine bands subsequently withdrew their support for the project. Trans Mountain's website stated that 43 MBAs have been signed, while some researchers who tried to verify this were only been able to identify 41 First Nations groups who signed MBAs. Trans Mountain's website currently states that 59 agreements have been signed, but they no longer specify that these are MBAs. Elsewhere, the Government of Canada states that 48 MBAs have been signed. Regardless of the discrepancies, approximately ⅓ of First Nations have signed agreements and these First Nations can generally (with a few exceptions) be characterized as small and rural groups.

In addition to MBAs, proponent led accommodation measures have included route variances/re-alignments guided by environmental, traditional use, and Indian Reserve location considerations along with a number of specific commitments made to Indigenous groups recorded in the NEB required commitment tracking table (Consultation, 2019; Trans Mountain, n.d.b). The federal government's own accommodation measures are highlighted by the formation of the Indigenous Advisory and Monitoring Committee (IAMC) and the Economic Pathways Partnership (EPP) (Consultation, 2019). The IAMC serves as a collaborative venue for Indigenous participation in the review and monitoring of the environmental, safety, and socio-economic aspects of TMX over its full lifecycle (Consultation, 2019). The EPP is intended to assist Indigenous groups in accessing existing federal programs and services that allow for participation in TMX projects and generally advance their broader economic development interests (Consultation, 2019). More generally, the government has made commitments to address Indigenous concerns in the areas of marine safety, security and incident prevention, oil spill preparedness and response, oceans protection, marine and terrestrial species protection, energy infrastructure, and climate change management among other things (Consultation, 2019). During the re-initiated consultation process many of the 2016 commitments were revisited and expanded upon with greater structure or specificity added where required (Consultation, 2019).

4.3.3 The Fiscal Benefits of the TMX Benefits Sharing Agreements

Negotiated benefits agreements have proven to be an important vehicle for communities of all sizes to ensure that project benefits are locally delivered. In addition to the MBAs signed with Indigenous governments, Trans Mountain has signed 19 Community Benefits Agreements (CBAs) with municipalities in BC and Alberta (Trans Mountain, 2015). These CBAs provide funding (in addition to property taxes) that will be used to directly support projects such as park infrastructure, trade education programs, environmental stewardship, and community infrastructure, among other things (Trans Mountain, 2015). The 19 agreements range in size from $75,000 to $1.3 million and provide a total of $8.6 million in funding to communities. At a larger scale, the Province of British Columbia negotiated a revenue sharing deal with the pipeline proponent worth up to $1 billion over the next two decades, or $25-$50 million annually (Hunter, 2017).

This deal was intended to ensure that B.C. receives a fair share of the fiscal project benefits and was made a condition of the B.C.'s approval for the pipeline expansion.

Trans Mountain's web page on Indigenous benefits states that an excess of $400 million will be shared with communities that have signed MBAs (Trans Mountain, 2018; Trans Mountain, n.d.c). However, it is not clear what form the benefits will be delivered in, whether it be through funding for employment programs, contracts for Indigenous businesses, funding for social programs, or through cash payments. It is likely that a composition of many types of funding makes up the aggregate value of $400 million, but it is not possible to determine the specific amounts of funding by category. That being said, some financial disclosures by certain First Nations have shed some light on cash payments. An internal dispute within the Peters Band revealed that they had received upfront payments of $3.66 million as well as a capacity building payment of $0.6 million (Jackson, 2017). Additional payments of $500,000 a year are expected over the life of the project (Jang, 2017). This puts the cash value of the IBA at around $14 million for a 20 year operational period. Other disclosures reveal similar up front payments made to the Tk'emlúps te Secwe' pemc and Ditidaht First Nations and the chief of the Whispering Pines/Clinton Indian Band has stated that their IBA carries a value of $10-$20 million (Beaumont, 2018). On the other hand, early estimates provided by Trans Mountain suggested that they aimed to provide total fiscal benefits in the range of 1%-2% of the $5.4B capital cost, or between $54M-108M in aggregate (private communication, 2019). Clearly there is a great deal of uncertainty regarding the quantitative value of the TMX IBAs and that uncertainty only increases when considering that the timing of the delivery of benefits remains unknown and the presentation of figures may be in either real or nominal dollars. Additionally, most of the research and analysis performed on TMX has focused on a 20 year operational period, but it is expected that the pipeline will be in service for well in excess of that. The original Trans Mountain system has been in service for over 60 years to date. There is a substantial difference between $400 million in fiscal & economic benefits delivered up front versus spread out over multiple decades.

While it is impossible to know the exact amount of fiscal compensation to be delivered through the TMX IBAs, it is clear that the First Nations that have signed IBAs will be sharing in the revenue generated by the pipeline and receiving millions of dollars in cash payments. That being said, while on the surface this seems like a favourable arrangement for First Nations, further analysis is needed to determine whether the TMX

IBAs are adequate in delivering fiscal benefits. Chapter 5 will explore this in more detail through an evaluation of the IBA fiscal benefits relative to the benchmarks introduced in Chapter 3.

Chapter 5. Analysis

5.1 Introduction

The analytical focus of this research project is a quantitative assessment of the fiscal benefits provided to First Nations through IBAs based on a study of TMX. The assessment consists of a comparison between the quantum of actual IBA fiscal benefits and the quantum of fiscal benefits determined using the benchmark IBA metrics that were introduced in Chapter 3. This chapter describes the analytical methodology used, limitations to the approach, and presents the results.

5.2 Overview of Methods

The primary analytical tool used for this report is an economic forecasting model of the expanded Trans Mountain pipeline system. The complete model is presented in Appendix B.

Typically, Canadian pipelines (which are natural monopolies) are regulated so that they are able to recover capital costs, operating costs, and taxes and earn a specified rate of return for investors (NEB, 2019e). This is accomplished through tolling rates set by the NEB and charged on products transported with adjustments for quality, volume, and distance travelled (NEB, 2019e). The existing Trans Mountain operation revisits the tolling rates every three years and allocates pipeline capacity with shippers of petroleum products using an established cost of service process that enables them to maintain a consistent rate of return (NEB, 2019a). TMX deviates from this standard tolling process and uses an open season bidding process to set tolls for 15 and 20 year periods through more market driven forces (NEB, 2013a). This process relies on negotiations between Trans Mountain and the shippers to determine an equilibrium tolling price based on the shipper's willingness to pay at various quantities supplied. Expert testimony has been submitted to the NEB that this process provides fair market value competitive prices (NEB, 2013b), although others within the petroleum industry believe this process lacks fairness and transparency (NEB, 2013c).

Documentation submitted to the NEB (at the request of the Canadian Association of Petroleum Producers (CAPP)) reveals that the indicative first year tolls negotiated

under the open season process for TMX could be approximately 30% higher than the tolls that would have been calculated using the conventional toll methodology with a targeted 10% return on equity (ROE) (NEB, 2013d). The indicative first year TMX tolling rates were calculated by the NEB using a capital cost of $5.4B, but tolling rates are slated to increase by $0.07 for every $100M in capital cost increases (NEB, 2013e; NEB, 2013f; Hughes, 2018). With a $12.6B capital cost estimate, this is equivalent to a $5.04 increase in tolling costs per barrel shipped from Edmonton to the WMT.

The model uses the indicative TMX first year tolls under a $7.4 billion capital cost estimate along with a system throughput level of 845,00bpd to determine gross revenues in the base case scenario. This throughput level is equivalent to 95% of the pipeline capacity and includes both the contracted capacity as well as month-to-month uncommitted throughput. 80% of the pipeline capacity (707,500bpd) is contracted by take-or-pay shippers on 15-20 year terms (NEB, 2013a). Throughput above 80% of the pipeline capacity (707,500bpd) is charged a 20% premium on the fixed portion of the 20 year toll and revenue generated from fixed tolls on throughput above the 85% pipeline capacity level is split 50/50 with fixed term take-or-pay shippers (NEB, 2013e).

While the overall capital cost of the project has increased to $12.6B, the base case scenario uses indicative tolls under a $7.4B capital program because shippers have only contractually agreed to pay tolls to cover a capital cost of up to $7.4B. There is no certainty that shippers will pay for the toll increases needed to cover the higher project capital costs (Matier et al., 2019; NEB, 2013e). Therefore, this scenario assumes that pipeline tolls and revenues are high enough to cover the $7.4B in capital costs, but not the $5.2B capital cost overrun over a normal return timeline. In the first alternate scenario, a capital cost estimate of $12.6B, tolls based on a $7.4B capital cost, and throughput level of 707,500bpd (80% of capacity) is used. In the second alternate scenario the model considers the effects of tolls based on a $12.6 capital cost. In this scenario, a $12.6B capital cost figure for the project is used along with a throughput level of 707,500bpd (80% of capacity). The three scenarios used in the model are summarized in Table 5.1. There are in fact a range of potential capital cost, throughput scenarios, and tolling scenarios; however, the three scenarios used in the model highlight base revenue, low revenue, and high revenue outcomes.

Table 5. 1 Summary of model scenarios and key variables

	Base Scenario	*Alternate Scenario #1*	*Alternate Scenario #2*
Project Capital Cost	$12.6B	$12.6B	$12.6B
Throughput	845,000bpd (707,500 bbl contracted + 138,000 bbl uncommitted)	707,500bpd	707,500bpd
Tolling Price per Barrel (Edmonton to WMT)	$5.87 (707,500 bbl) + $6.55 (49,000 bbl) + $3.28 (89,000 bbl)	$5.87	$9.51
Capital Cost Base for Tolls	$7.4B	$7.4B	$12.6B

The model relies on a number of assumptions in all scenarios. First, it assumes that all shippers have committed to 20 year contracts and will be charged the 20 year tolling rate. In actuality it is only the majority of shippers who have committed to the 20 year contract period and the exact split between 15 and 20 year shippers is unknown at this time. That being said, it is expected that all 15 year shippers will extend their contracts for a further 5 years (NEB, 2013e). Second, it assumes that all shipments on TMX are heavy oil shipments at volumes greater than 75,000bpd per shipper. Third, it assumes operating costs, capital structure, cost of capital, depreciation rates, and other related items are consistent with the figures provided by Trans Mountain to CAPP (NEB, 2013d). Finally, in the first alternative scenario, it assumes that all uncommitted shipments are to Westridge and the uncommitted toll premium is calculated on the fixed portion of the Edmonton to WMT toll.

Once gross toll revenues are calculated using shipment volumes, distances, and tolling prices, fixed and variable pipeline operating costs are deducted along with depreciation of capital, interest charges, and an income tax expense. Expansion capital costs incurred in the years preceding the in-service date are depreciated for tax purposes using the capital cost allowance method from the in-service date onward (NEB, 2013d). Net operating losses are carried forward as income tax credits in future years. The end result is a pro forma income statement for a 20 year operational period with an in-service date of January 1, 2023, which is consistent with Trans Mountain's anticipated in-service date (Trans Mountain, 2020). Although the pipeline system is

expected to remain operational for a period well in excess of 20 years, a 20 year analytical period is used here which is consistent with other economic analyses[8] that have been submitted to the NEB. All figures have been adjusted to real 2020 dollars and have been discounted back to the present day. The tolling rates on TMX include a price escalator of 2.5% annually; however, this is assumed to be an adjustment for expected nominal inflation only and thus, it has not been factored in to the revenue or cost calculations which are based on constant 2020 dollars (NEB, 2013e).

Using this economic model the municipal, provincial, and federal tax figures are disaggregated from the income statement and presented as the benchmark fiscal benefit indicators for government revenues from TMX. It is assumed that all tax payments are made during the in-service period after construction is completed. At least in the case of income tax payments, this is likely to be the true as the expanded system will not generate positive net income until after construction is completed. Tax payments are calculated for the entire pipeline system and not limited to the incremental amounts from the expansion. These benchmark amounts are compared to the aggregate IBA fiscal benefit figures for the entire pipeline system on an undiscounted and discounted basis. A discount rate of 10% has been used which reflects higher perceived project risks, including those associated with capital cost overruns, permitting, construction, legal challenges, and in-service date delays (PBO, 2019; Kinder Morgan, 2018).

The estimate range for the cumulative IBA fiscal benefits is based on the relevant information discussed in Chapter 4.3.1. At the low end of the range, 2% of the original $5.4B capital cost gives a cumulative undiscounted IBA value of $108M. And at the top of the range, the Trans Mountain stated cumulative value of $400M is used. The IBA distributions are assumed to be made evenly over a 20 year period beginning in 2023 (the first in-service year for TMX) and are discounted back to the present.

5.3 Limitations

Accurate economic forecasting strongly depends on the accuracy of the assumptions. The quantitative assumptions used in the modelling for this research project have been compiled from publicly available economic and financial information,

[8] See Muse Stancil (2015) and the Conference Board of Canada's (2015) economic evidence

most of which has been submitted to the NEB. However, forecasts are inherently uncertain and actual results may differ from forecasted results. Additionally, in an effort to reduce complexity, the model uses a number of simplified assumptions related to the type of oil shipped, the term length of the shipping contracts, and the shipment volumes associated with the contracts. These variables impact tolling rates and the simplification of these underlying assumptions could also contribute to forecasted results which differ from actual results.

Given the uncertainties surrounding the project capital costs, project timelines, and political landscape it would be reasonable to expect the project proponent to revise their economic and financial expectations over time. This has not been done for TMX. For example, the project proponent outlined a number of financial assumptions in their January 2013 response to CAPP's request for information and in their October 2014 response to an intervenor's request for information (NEB, 2013d; NEB, 2014). Neither of these sources has been updated by the project proponent despite significant project changes. Thus, much of the information that is relied upon for this economic analysis may be outdated if revised financial information becomes available. To partially mitigate this, sensitivity analysis allows for a range of assumptions to be made.

Another challenge exists with respect to estimating the revenues provided to First Nations through the IBAs. The IBAs signed by TMX and First Nations are confidential and therefore the specifics of the agreements remain outside of the public domain. Trans Mountain has publicly stated the aggregate economic value of the IBAs, but there is uncertainty regarding the total value of the fiscal benefits on their own, the timing of payments, the various fiscal mechanisms employed, and the payment stability. Again, sensitivity analysis partially mitigates these concerns.

Finally, the analysis done here is limited to a single case study. The use of a single case study may not be substantial enough in scope to draw broad conclusions from; however, there is still merit in this research as the methodology introduced may contribute to further research on the financial aspects of IBAs and lead to more beneficial negotiated outcomes for First Nations.

5.4 Results

The project proponent proposes to provide benefits to First Nations impacted by the construction and operation of TMX (Trans Mountain, n.d.c). The results of the following analyses show the magnitude of the IBA fiscal benefits provided to First Nations in comparison to the benchmark fiscal amounts (as determined through the economic modelling) and to the benchmark comparable IBAs. Additional analysis highlights the magnitude of the fiscal IBA benefits, when compared to the total economic benefits created by TMX.

5.4.1 Comparison of Actual IBA Fiscal Benefits to Benchmark Federal Income Tax Fiscal Benefits

Over the first 20 years of its operational life, TMX is expected to generate over $34 billion in revenues and an expected $1.39 billion in federal income taxes. On a discounted basis this tax figure is $297 million in 2020 dollars. A discount rate of 10% has been used, which reflects the weighted average cost of capital along with the risk premium associated with permitting and construction of TMX (PBO, 2019; Kinder Morgan, 2018). The large discrepancy between the undiscounted and discounted figures is attributable to the long discounting period as well as the timing of the income tax cash flows. Taxes are forecasted to increase over time as the capital cost allowance decreases and taxable income increases. This is consistent with Trans Mountain's stated expectation that corporate income tax obligations will grow over the life of the project (NEB, 2015). In the two alternate scenarios federal income taxes total $0.72 billion on the low side and $3.5 billion on the high side. On a discounted basis these figures are $0.12 billion and $1.0 billion, respectively.

It is worth noting the income tax estimates put forth by other sources. The Conference Board of Canada has estimated the total federal income tax paid by Trans Mountain in the 20 year operational phase as $536 million (Conference Board of Canada, 2015; NEB, 2015). Meanwhile, Trans Mountain has estimated a total income tax obligation of $114 million per year in the first five years alone (NEB, 2014; NEB, 2015). The federal portion of this is $63.3 million and extrapolated over a 20 year period the total federal income tax figure equals $1,267 million. These figures were estimated with a capital cost of $5.4 billion while the economic modelling for this analysis uses a

revised capital cost of $12.6 billion. This is the primary reason that the federal income tax figure used in this analysis lies outside the range of other estimates.

Evaluating the fiscal IBA benefits relative to the federal income tax benchmark shows the relative level of fiscal benefits being delivered to Indigenous governments. As shown in Table 5.2, the base case fiscal IBA benefits of $252 million are 18.1% of the benchmark amount. On a discounted basis these figures are $89 million and 29.9%, reflecting the differences between the timing of IBA payments and income taxes, particularly in the first few years of operations. Under the alternate scenarios, fiscal IBA payments range from $108 million to $400 million, with NPVs of $38 million and $141 million, respectively. Table 5.2 summarizes the figures from this section of the analysis.

Table 5. 2 IBA payments relative to the federal income tax benchmark

$000	*Base Case*		*Outcome Range*	
	Total	NPV	Total	NPV
IBA Payments (Actual)	$252,000	$88,654	$108,000 - $400,000	$37,994 - $140,720
IBA Payments (Federal Income Tax Benchmark)	$1,389,064	$296,639	$718,254 - $3,538,207	$121,706 -$1,031,449
Difference	-$1,137,064	-$207,985		
% Value	18.14%	29.89%		

In practice, the purpose of this analysis is to highlight that there is a wide gap between the revenues provided through the TMX IBAs referenced against the benchmark revenue amount that accrues to the federal government through corporate income tax receipts.

5.4.2 Comparison of Actual IBA Fiscal Benefits to Benchmark Provincial Income Tax Fiscal Benefits

The provincial income tax benchmark is closely aligned with the federal income tax benchmark as both are derived from the total corporate income tax obligation for TMX. The provincial income tax paid by TMX is estimated at $1.11 billion in total and $237 million on a discounted basis. Comparing these figures to the IBA fiscal benefit amount again shows significant variance between the figures. The base case IBA amount of $252 million is 22.7% of the benchmark figure and 37.4% on a discounted basis. Again, the variance between the total and discounted values is attributable to the timing of the payments. Under the sensitivity scenarios, the benchmark provincial income tax amount ranges from $0.57 billion to $2.8 billion in total and $97 million to $825 million on a discounted basis. This is contrasted to the IBA sensitivity range of $108 million to $400 million in total and $38 million to $141 million discounted. Table 5.3 summarizes these figures.

Table 5. 3 IBA payments relative to the provincial income tax benchmark

$000	*Base Case*		*Outcome Range*	
	Total	NPV	Total	NPV
IBA Payments (Actual)	$252,000	$88,654	$108,000 - $400,000	$37,994 - $140,720
IBA Payments (Provincial Income Tax Benchmark)	$1,111,251	$237,311	$574,603 - $2,830,566	$97,365 - $825,159
Difference	-$859,251	-$148,657		
% Value	22.68%	37.36%		

5.4.3 Comparison of Actual IBA Fiscal Benefits to Benchmark Municipal Property Tax Fiscal Benefits

As a multi-jurisdictional project, TMX has the potential to deliver significant municipal fiscal benefits through property taxes. Trans Mountain has estimated that the expansion project will lead to an incremental $23.2 million in property taxes paid annually to communities in B.C., including an incremental $7.5 million in Greater Vancouver, and an incremental $6.2 million in Burnaby alone (Reconsideration, 2019; Trans Mountain, n.d.d). In Alberta, an incremental $3.4 million in property tax will be paid annually (Reconsideration, 2019; Trans Mountain, n.d.d). In total, property taxes paid by Trans Mountain for the entire pipeline system are estimated to be $52.3 million annually and $1,046 million over the 20 year operational period (Trans Mountain, n.d.d). This benchmark compensation amount of $1,046 million is contrasted to the base case IBA amount of $252 million, or 24.1% of the benchmark total. The discounted IBA benefits are also 24.1% of the discounted benchmark benefits as both municipal property taxes and fiscal IBA benefits are assumed to be paid at the same annual intervals with annual amounts unchanging.

It is certainly possible that the municipal tax figures could be higher than those stated here; however, Trans Mountain has not revised their estimates of municipal property tax payments to reflect the new project capital cost of $12.6 billion. Attempting to adjust the property tax estimate upwards or downwards is a highly speculative exercise because it is unclear how the increased project capital costs correlate with municipal property and asset values.9 However, to account for this uncertainty a sensitivity range of +/- 10% has been applied to the base case municipal property tax figure to give an amount of $941 million in the low scenario and $1,151 million in the high scenario. On an NPV basis, these figures are $331 million and $405 million, respectively. These figures are relative to the IBA sensitivity range of $108 million to $400 million in total and $38 million to $141 million discounted. The figures described in this section are summarized in Table 5.4.

9 For example, the $12.6 billion capital cost estimate includes $1.7 billion in financial carrying costs, a $0.5 billion contingency fund, a $0.6 billion cost reserve and a number of capitalized project expenses which would not be reflected in property values (Trans Mountain, 2020).

Table 5. 4 IBA payments relative to the municipal property tax benchmark

$000	*Base Case*		*Outcome Range*	
	Total	NPV	Total	NPV
IBA Payments (Actual)	$252,000	$88,654	$108,000 - $400,000	$37,994 - $140,720
IBA Payments (Municipal Income Tax Benchmark)	$1,046,000	$367,983	$941,400 - $1,1,50,600	$331,185 - $404,781
Difference	-$794,000	-$279,329		
% Value	24.09%	24.09%		

5.4.4 Comparison of TMX IBA Fiscal Benefits to Comparable Publicly Available IBAs

As discussed in Chapter 3, fiscal benefits standards for IBAs have largely evolved from precedent setting agreements and informal information sharing. Table 5.5 compares the estimated range of fiscal benefits from the TMX IBAs to two publicly available mining IBAs, one natural gas pipeline IBA, and two natural gas pipelines PBAs. The fiscal benefits are presented relative to the project capital costs. As discussed further in Chapter 3.5, the PBAs are signed between Provincial and Indigenous governments and are separate from the confidential developer to Indigenous government IBA, which deliver additional fiscal benefits. At the low end of the TMX IBA range (0.9%) the TMX IBAs deliver the lowest level of fiscal benefits on a relative basis. At the high end of the TMX IBA range (3.2%), the fiscal benefits are still lower than all other agreements although they are somewhat comparable to the relative estimate of the Coastal GasLink PBA fiscal benefits (3.6%), the relative low range estimate of the Mary River IBA fiscal benefits (4.3%), and the relative Prince Rupert Gas Pipeline PBA fiscal benefits estimate (4.8%). The high end of the TMX IBA range is well below the relative fiscal benefits provided by the Raglan Agreement (12.4%) and the high end estimate of the Mary River IBA fiscal benefits (8.8%). The high end of the TMX IBA

range is also below the relative estimate of the Coastal GasLink IBA fiscal benefits estimate (5.6%).

Table 5. 5 Fiscal benefits from the TMX IBAs, comparable IBAs, and other revenue sharing agreements as a function of initial project capital costs

$000	*TMX IBAs*	*Raglan Agreement*	*Mary River Mine IBA*	*Coastal Gas Link IBAs*	*Coastal Gas Link PBAs*	*Coastal Gas Link IBAs + PBAs*	*Prince Rupert Gas Pipeline PBAs*
Total Fiscal Benefits	$108,000 - $400,000	$74,625	$175,000 - $363,000	$368,000	$238,257	$606,257	$241,600
Project Capital Cost	$12,600,000	$600,000	$4,100,000	$6,600,000	$6,600,000	$6,600,000	$5,000,000
Fiscal Benefits as a Percent of Project Capital Costs	0.9% - 3.2%	12.4%	4.3% - 8.8%	5.6%	3.6%	9.2%	4.8%
Total Fiscal Benefits Prorated to the Capital Costs of TMX	$108,000 - $400,000	$1,567,125	$537,805 - $1,115,561	$702,545	$454,854	$1,157,399	$608,832

This comparable analysis is difficult to draw conclusions from as the nature of the projects are different, the agreements are different and negotiated at different times, and the perspectives of the project proponents may be different as well. However, given that the TMX IBAs are contemporary and that IBAs have expanded in size and scope over time, it would be fair to expect the TMX IBAs to deliver a greater sum of fiscal benefits than other IBAs. At the very least, it would be expected that the TMX IBAs deliver a level of fiscal benefits that are comparable to those delivered by the Coastal GasLink IBAs. This is likely not the case and it is almost certainly not the case when you consider both the Coastal GasLink IBAs and PBAs together. The $108 million to $400 million TMX IBA range is 9.3% to 34.4% of the $1,157 million combined Coastal GasLink IBA & PBA total.

The value of the TMX IBAs can also be compared to the TMX revenue sharing deal negotiated between the Province of British Columbia and Trans Mountain. The estimated maximum value of this deal is $1 billion over the next two decades and this in addition to any provincial tax revenue derived from TMX. The purpose of this deal is to ensure that that B.C. receives a fair share of the fiscal project benefits relative to the potential costs of the pipeline running through the province, which is the same rationale underscoring the use of IBAs. Comparing the maximum value of the TMX IBAs ($400 million) to the maximum value of the Provincial revenue sharing deal ($1 billion) highlights that the TMX IBAs are yielding substantially less than the province was able to negotiate for in a somewhat comparable situation.

5.4.5 Comparison of Actual IBA Fiscal Benefits to Total Economic Benefits Delivered by TMX

An estimate of the total economic benefits generated by TMX has been put forth as evidence that the pipeline expansion is in the Canadian public interest. The total fiscal benefits the pipeline delivers are in direct, indirect, induced, and fiscal forms.[10] The impact of higher netbacks[11] for oil producers as well as additional upstream and downstream economic activities (which lead to increased corporate income tax and royalty revenues at the federal and provincial level) are included in the total fiscal benefits estimate (Reconsideration 2019; Conference Board of Canada, 2015). The total fiscal benefits stemming from TMX are presented in Table 5.6. Note that these

[10] Direct economic benefits include those directly related to the construction and operation of the pipeline. Most of the direct benefits are realized by the construction and oil and gas industries. Indirect benefits are realized by industries/individuals involved in the construction and operation of TMX, but further down the supply chain. Induced benefits are realized in typically consumer oriented industries when wages earned by direct or indirect beneficiaries are spent. Fiscal benefits are equivalent to the provincial and federal tax revenues resulting from the direct, indirect, and induced effects of TMX.

[11] The netback is the price that a specific grade of crude oil is sold for at its market-clearing point, less transportation costs. Higher netbacks are expected because of market expansion to Asia, a reduction of supply to North America, and reduced need for comparably expensive rail transport (Muse Stancil, 2015). The price discount for Canadian crude is expected to be reduced as supply is diverted through lower cost transport methods from North American markets to Asia-Pacific markets, where Canadian crude fetches a higher market price (Muse Stancil, 2015). This is one of the key benefits outlined by the NEB in their approval recommendation. It is worth noting however that major oil market and project changes have occurred since these estimates were prepared and which may invalidate them (see Gunton & Joseph, 2019 for a critique of the Muse Stancil methodology and re-assessment of producer's ability to achieve higher netbacks.).

fiscal benefit estimates assume that the pipeline's capacity will be fully utilized and assume a pipeline capital cost of $5.4 billion (Conference Board of Canada, 2015; Muse Stancil, 2015). The capital cost has since been revised to $12.6 billion (or, approximately $10.9 billion once financial carrying costs are deducted) (Kinder Morgan, 2018; PBO, 2019; Trans Mountain, 2020) and as such, this is likely to increase some benefits and decrease others although the extent of the changes are unknown at this time. Additionally, note that the estimates of operational phase fiscal benefits are incremental and do not include the benefits that are generated by the existing pipeline operations.

Table 5. 6 Federal and provincial tax revenues generated by TMX from direct, indirect, and induced sources

Fiscal Benefit Source	Total Value ($000)	Notes
Construction of TMX	$1,214,100	• $646M in federal tax revenues • $559M in provincial tax revenues (B.C. accounts for 54% of this amount, Alberta for 30%) • Personal income tax is the largest revenue source (72%), followed by corporate income tax (30%), and other taxes and levies (8%)
Operation of TMX	$3,305,100	• $1.9B in federal tax revenues • $1.4B in provincial tax revenues (B.C. accounts for 66% of this amount, Alberta for 26%) • Corporate income tax is the largest revenue source (60%), followed by personal income tax (20%), and other taxes and levies (20%)
Higher Netbacks	$23,710,300	• $10.2B in federal tax revenues • $13.5B in provincial tax revenues (Alberta accounts for 93% of this amount, B.C. for 0.1%)
Additional Economic Activity[12]	$18,507,000	• $11.3B in federal tax revenues • $7.2B in provincial tax revenues (Alberta accounts for 50% of this amount, B.C. for 17%)

[12] The Conference Board of Canada prepared an initial report of the economic benefits of TMX in accordance with the NEB's regulatory process and list of considerations. Subsequently, the Conference Board of Canada released a supplementary report which outlines additional economic effects upstream and downstream from the project. Principally, these include additional oil and gas sector investment from oil producer after tax cash flows, dividend payments to shareholders, and increased marine traffic and associated spending (Conference Board, 2016). Trans Mountain includes these additional benefit estimates in its press releases on the economic benefits of TMX.

TOTALS	$46,736,500	

Sources: Conference Board of Canada, 2015; Conference Board of Canada, 2016

Looking at the construction period and first 20 years of operations, it is clear that the TMX has the potential to deliver substantial tax revenues to provincial and federal governments from direct, indirect, and induced sources. When the value of the TMX IBAs is contrasted with the total fiscal benefits generated by TMX, the IBA fiscal benefit range of $108 million to $400 million is 0.23% to 0.86% of the total incremental fiscal benefit amount of $46.7 billion. First Nations governments are receiving a fraction of the amounts other governments are receiving. Of course, this comparison is not perfect. Certainly some of the $46.7B in fiscal benefits could be transferred back to First Nations through federal transfer programs and own-source revenues from First Nations businesses and employees involved with TMX (and the oil sector, in general) may be earned as well. Regardless, this portion of the analysis highlights that First Nations are receiving though IBAs a low level of fiscal benefits relative to the overall forecast fiscal benefits that TMX provides.

The higher netbacks that result from TMX are estimated to increase oil producer revenues by a forecasted $73.5 billion over the first 20 years of the pipeline's operations (Muse Stancil, 2015). Again, this estimate assumes a project capital cost of $5.4 billion and full pipeline utilization. It also assumes an average cost per barrel of oil of approximately $64 (Muse Stancil, 2015). Pipelines themselves do not generate rent, but this amount can be considered a proxy measure of the total economic rent generated as a product of TMX. When the IBA fiscal range of $108 million to $400 million is compared to the $73.5 billion in total economic rent associated with the project it is clear that the IBAs only generate revenues that are a small fraction of the total rent associated with TMX. An economic rent benchmark would we better employed in situations where rent is easier to calculate, but it is nonetheless effective for evaluating IBA fiscal benefits relative to the private sector's ability to pay.

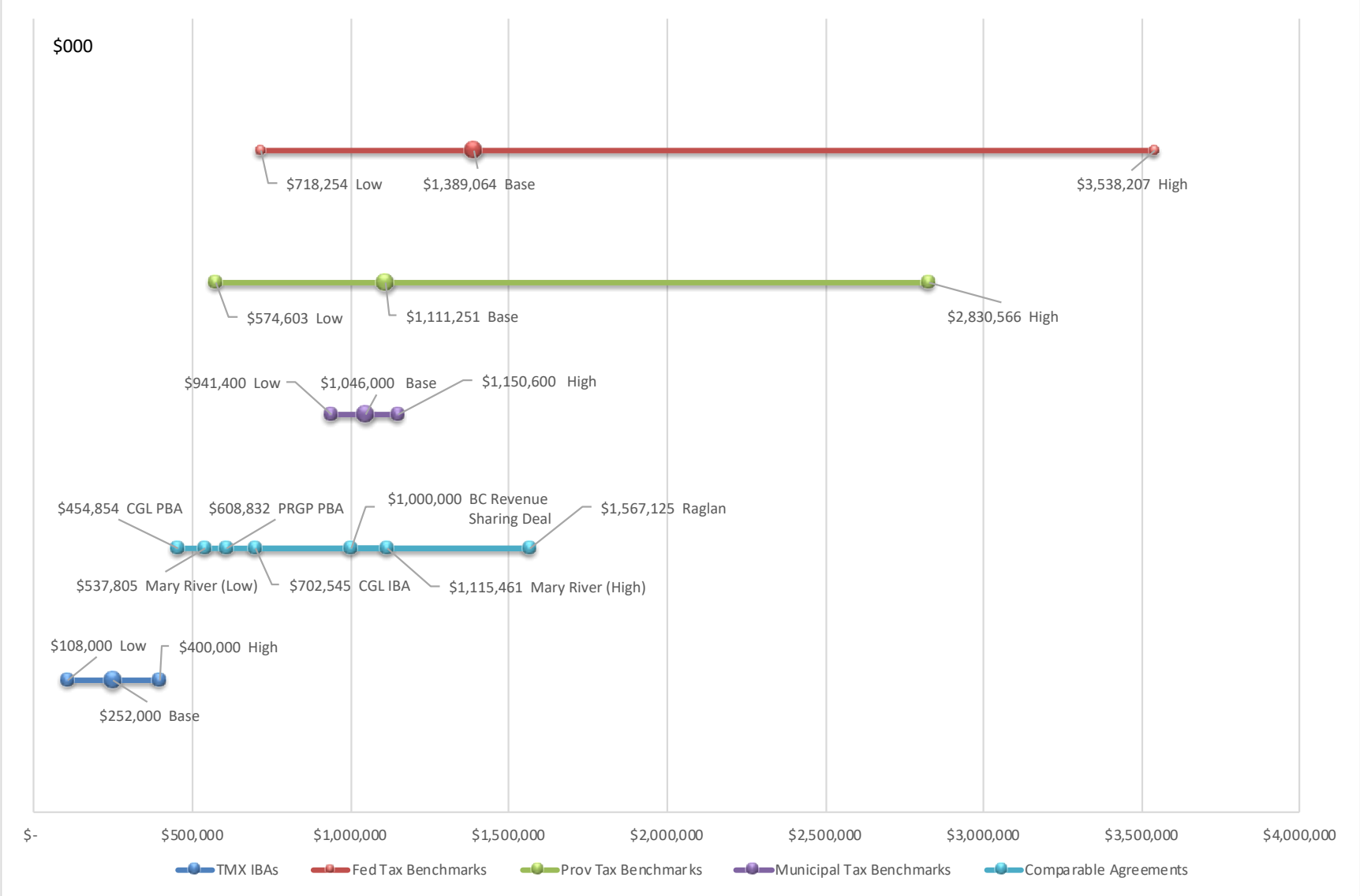
5.5 Summary

The results of this analysis show the level of fiscal benefits that First Nations are expected to receive from TMX relative to: 1) the benchmark indicators for fiscal benefits introduced in this research project; 2) the benchmark comparable benefit sharing

agreements; 3) the total fiscal benefits TMX provides to federal and provincial governments; and 4) the total rents associated with TMX. Figure 5.1 summarizes the range of benefit outcomes from the TMX IBAs relative to the federal, provincial, and municipal tax benchmark range and the comparable agreement benchmark range.

When evaluated against benchmark standards, the TMX IBAs likely do not adequately return project benefits in the form of fiscal compensation to communities. Yet, the purpose of this analysis is not solely to identify this. The analysis introduces a benchmarking methodology that can be used to reference IBA revenue provisions against various other fiscal benefit quantums. The overall aim of this is to work towards more equitable agreements that support Indigenous governance in accordance with Canada's reconciliation principles. Chapter 6 will discuss this in more detail.

Figure 5. 1 The range of benefit outcomes from the TMX IBAs relative to the federal, provincial, and municipal tax benchmark range and the comparable agreement benchmark range.



Chapter 6. Discussion and Recommendations

6.1 Introduction

This chapter discusses the results presented in Chapter 5 and discusses the benchmark fiscal benefit criteria as a tool for negotiating IBAs that effectively distribute fiscal project benefits to First Nations. The chapter concludes by providing negotiating recommendations that can be employed to strengthen the fiscal outcomes that come from IBAs.

6.2 Discussion of Results

The project proponent stated that TMX allows for significant First Nations participation in the economic benefits associated with the project. This includes employment, skills training, and business opportunities, along with the delivery of financial benefits through fixed payments, royalties, profit sharing, or other means. This report has assessed the magnitude of fiscal benefits from IBAs relative to a series of benchmarks. The findings show that the fiscal benefits in the TMX IBAs are slightly lower than most other IBAs and significantly lower than the fiscal benefits that accrue to other governments as tax revenue. The fiscal benefits in the TMX IBAs are also significantly lower than the total direct, indirect, and induced fiscal benefits associated with the project and the benefits that accrue to the private sector in terms of increased netbacks from oil.

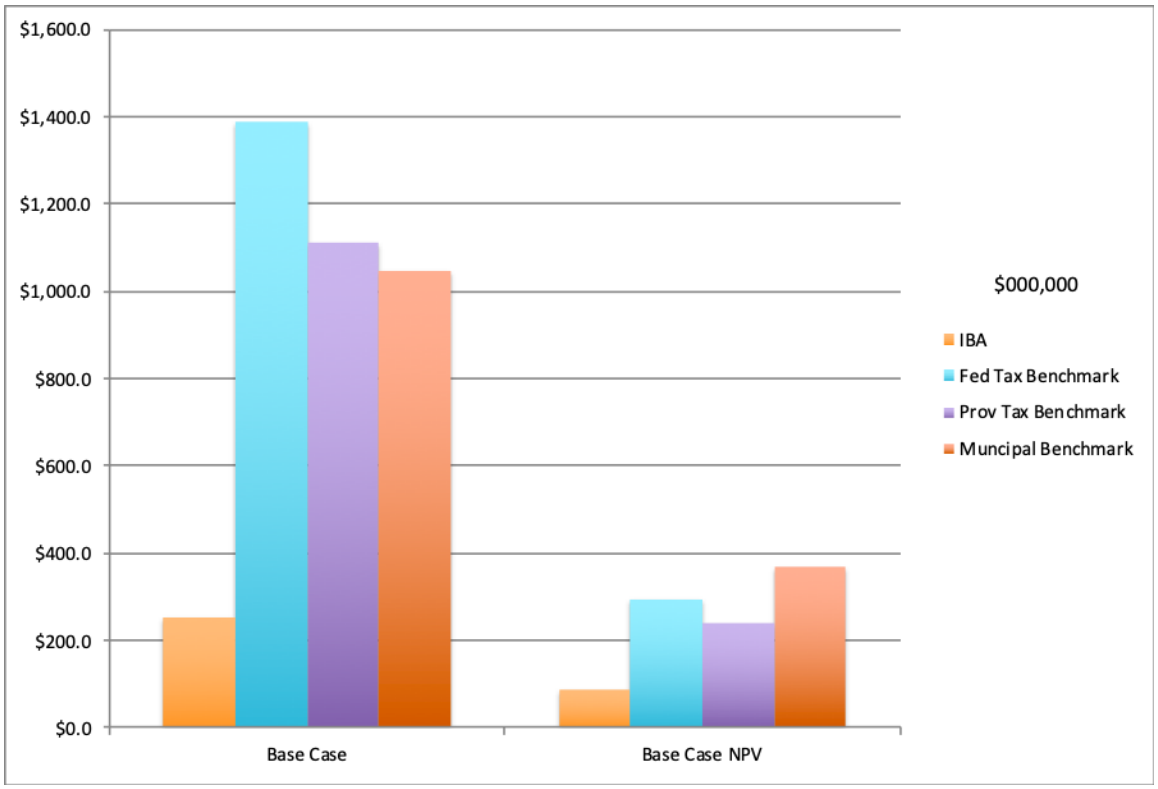
While it is easy to conclude that the TMX IBAs to do not adequately return fiscal project benefits to First Nations, communities, this is hardly surprising as there are no quantitative standards for IBA benefit provisions within an IBA, aside from those that are based on precedent. Standards based on precedent are simply not appropriate as negotiating power imbalances, capacity limitations, confidentiality clauses, and project characteristic variances decrease the chances of equitable agreements being reached and useful precedents being established. I propose benchmark standards for fiscal benefit distributions that enable a uniform method of determining fiscal benefit quantums, which can then be evaluated against IBA quantums. Specifically, this method

aligns revenue sharing for First Nations through IBAs with revenues that federal, provincial, and municipal governments are expected to receive through either corporate income taxes or property taxes. This method is also based on the assumption that First Nations are a level of government and as such should receive fiscal benefits comparable to other levels of government.

There are multiple advantages to this methodology. First, it allows First Nations to challenge de facto benefits sharing standards that have emerged over time and share in more of the benefits of resource development. Second, it mitigates many of the obstacles that are inherent in IBA negotiations. For example, access to economic project information is typically one sided (favouring the project proponent and leading to a power imbalance), but estimates of tax revenue are usually publicly available. Thus, a benchmark based on a measure of tax revenue provides a common reference point that reduces the need to seek and share detailed information about project economics. Third, the methodology can be applied across multiple projects in multiple sectors, thereby eliminating the need to compare benefits from a mining IBA to an oil & gas IBA, for instance. Fourth, it raises the profile of First Nations governments and puts them on par with federal, provincial, and municipal entities which aligns with the principles of reconciliation.

Figure 6.1 highlights the amount of fiscal benefits the TMX IBAs provide relative to the benchmark federal, provincial, and municipal tax amounts under the base case scenarios on a total and discounted basis. Analysis using this benchmarking method shows that all three of these government levels are receiving a higher proportion of fiscal project benefits than First Nations are receiving through IBAs. Furthermore, the difference between the actual and benchmark amounts is hundreds of millions of dollars, which highlights the magnitude of the compensation gap. It is important to note that I do not evaluate the appropriateness of these benchmarks and future research is merited which evaluates these and other benchmarks that could be used for negotiating and evaluating IBA revenue sharing provisions.

Figure 6. 1 Relative levels of fiscal benefits delivered by TMX to different government entities under the base case assumptions



6.3 Recommendations

Identifying a benchmark level of fiscal compensation does not necessarily lead to agreements that successfully delivery this level of compensation. The following negotiation and implementation recommendations are intended to help First Nations negotiate IBAs that lead to more equitable outcomes, particularly in terms of fiscal matters.

The first recommendation is for First Nations to negotiate for project benefits in a group, or as a coalition. The apparent advantages of negotiating IBAs as a group are increased access to information and greater bargaining power; however, negotiating as a group inevitably increases the number of interests that must be represented and adds complexity to arriving at consensus based outcomes. Two sub-recommendations that go hand-in-hand can assist with this. The first is recognizing that negotiating fiscal provisions in IBAs is about resource revenue sharing and not about impact offsets. The second is removing the requirement to consent to a project when signing an IBA. Like

most existing IBAs, the benefits that the TMX IBAs provide are in exchange for First Nations support for the project (or, at least no opposition). The approval (and re-approval) of TMX by the federal government presents a challenge for First Nations who do not support the project and have not signed IBAs. Assuming the project goes ahead as planned, revenue sharing benefits will go to Nations who are impacted by the development and have signed IBAs, but not to those who are impacted and have not signed IBAs. Furthermore, if a project moves closer to completion, a First Nation that has not signed an IBA will likely find that their negotiating power and their ability to receive an adequate benefits package is significantly reduced. Assuming that all First Nations are unified in their desire to equitably share in resource revenues from projects that ultimately proceed, a group negotiation for revenue sharing benefits without the condition to consent should allow for all First Nations on a pipeline route to benefit, regardless of if they object to the development for legitimate reasons or not. Specific impacts and accommodations could be separately negotiated in order for a First Nation to ultimately consent to a development project. This recommendation is most applicable when the spatial scale of a development is quite large and impacts a diverse group of First Nations.

Negotiating in a group is not an unprecedented action in the IBA field. Indeed, a group of separate First Nations in Northern B.C. has formed the First Nations LNG Alliance to share information while negotiating gas pipeline IBAs for proposed projects (FNLNGA, 2018). Other coalitions include The First Nations Pacific Trail Pipelines Group Limited Partnership, which collectively negotiated agreements related to the Pacific Trails Pipeline, and the Coastal First Nation Great Bear Initiative, which more broadly negotiated an LNG benefits agreement for a collection of coastal First Nations in B.C. (FNLP, 2019; Province of British Columbia, n.d.c)

The second recommendation is to consider negotiating separate benefits agreements with federal or provincial government entities for an incremental increase in transfer payments or other funding. As evidenced in chapter 5, the total fiscal benefits received by First Nations through IBAs are only a fraction of the direct, indirect, and induced fiscal benefits TMX generates for federal and provincial governments. Given this, it stands to reason that there is the potential for First Nations to share in the incremental public revenues that major resource development projects provide if IBAs alone do not deliver an acceptable level of benefits.

In fact, there is already precedent for this as well. The PBAs related to gas pipeline development in Northern B.C. are examples of government to government (provincial to First Nations) agreements that share tax benefits from resource development, enable collaborative economic and community development, and contribute to reconciliation (Province of British Columbia, n.d.d). These PBAs are supplemental to the customary project developer to First Nations IBAs. B.C. also has agreements in other sectors such as forestry and clean energy that offer similar government to government revenue sharing opportunities (Province of British Columbia, n.d.d).

An alternative to this would be to negotiate trilateral agreements with government entities and project proponents and implement common fiscal regimes to collect and distribute fiscal benefits. This view is reflected in the literature and is more likely to achieve the government objective of neutrality and be favourable viewed by private interests (Browne & Robertson, 2009; Kennett, 1999; Sosa & Keenan, 2001). However, this alternative opens up a broader discussion on the supraregulatory nature of IBAs, governance gaps, and the reasons for the existence of IBAs in the first place.

The third recommendation is to employ the benchmarking methodology introduced in this research project as a tool to understand what total fiscal compensation could amount to based on different benchmarks. There are many alternative benchmarks that generate a wide range of IBA revenue. This study uses a variety of benchmarks based on corporate income tax payments, property tax payments, and other IBAs without concluding which benchmark should be used. Clearly, more research is required to determine which benchmarks are most appropriate for determining IBA revenue requirements. But the key point is that some type of benchmarks need to be used to guide and evaluate IBA revenue provisions.

Fourth, if negotiating as a group, First Nations should establish and formalize clear parameters on how fiscal benefits are to be allocated between Nations along with methods for dispute resolution. Some strategies for this may include revenue sharing based on the relative length of pipe in a First Nations traditional territory, or on a per capita basis. This transparent approach is also useful in reducing negotiating power imbalances and facilitating information sharing, as discussed earlier in this chapter.

Fifth, when agreeing in principle to a total quantum of fiscal benefits (or to the fiscal instruments that are intended to provide the quantum of benefits), ensure that adequate flexibility is built into an IBA that allows for supplemental negotiations if a project changes. Considering that the capital costs alone on TMX have nearly doubled since the first TMX IBAs were signed, there needs to be adequate opportunity to revisit an IBA if the project changes in scope or substance or if the IBA no longer serves its original intended purpose. Reducing the occurrence of inequitable, uncertain, or negative outcomes resulting from IBAs requires that contractual flexibility be considered and even formalized in IBAs when possible.

There are many other recommendations and best practices for negotiating IBAs that have been developed in the IBA literature. Best practices specific to IBA financial provisions have been compiled from the literature reviewed in Chapter 3 and presented in Table 6.1. More broadly, best practices for all aspects of IBAs have been developed in an extensive best practices study and presented in Appendix C.

Table 6. 1 Best Practices for Negotiating Fiscal Benefits Provisions within IBAs

Identify community risk tolerances and objectives before negotiations begin
Understand the risk profiles of the development and the developer before negotiations begin
Utilize precursor agreements with developers, like MOUs, that provide funding for project economic evaluation and fiscal instrument evaluation
Agree to a common financial model that can be used to test fiscal instruments against community objectives and outline a common methodology to determine the quantum of payments
Ensure that the methodology used to determine fiscal benefit amounts is distinct from the methodology used to calculate financial payments for impacts
Choose fiscal instruments that will align with community objectives and respond to the economic characteristics of a development
Utilize multiple fiscal instruments in a regime, which will likely result in a high degree of revenue stability and total revenue.
Design fiscal regimes so that they are predictable and do not penalize developers or impede development
Coordinate fiscal regimes with other government bodies, when possible
Negotiate terms as specifically as possible

Ensure that fiscal regimes which are integrated into IBAs are legally enforceable and are able to be monitored, audited, and revised as required
Be flexible enough to adapt to changing development circumstances
Advocate for the use of long term investment funds to guarantee savings and are tied to a strategic long term community vision for how funds are to be used

Sources: Gunton et al., 2020; Kennett, 1999; Diges, 2008; Gibson & O'Faircheallaigh, 2010; O'Faircheallaigh, 2018; Suderholm & Svahn, 2014; Browne & Robertson, 2009; Sosa & Keenan, 2001

6.4 Future Research

The evidence from the case study in this report highlights that there are considerable differences between the various benchmarks and I make no attempt to investigate which benchmark serves as the optimal reference point for determining a quantum of fiscal benefits. In fact, there may be other benchmarks which I was not able to identify through the literature review, which may be more appropriate. Particularly when the use of funds is considered, more refined benchmarks may arise. Further research is required to investigate this.

Additionally, it would be worth investigating whether a standardized process for negotiating IBA fiscal benefits naturally lends itself to greater cooperation amongst Indigenous governments and between Indigenous governments and project proponents. Finally, considerably more needs to be done to ensure that fiscal benefit flows are accompanied with management mechanisms that lead to positive community outcomes. However, these knowledge gaps should not take away from the use of benchmarking as an essential tool in negotiating and assessing First Nations IBA benefit packages.

6.5 Conclusion

IBAs are a tool for Indigenous community development and have the potential to deliver significant fiscal benefits. These fiscal benefits can often be a much needed source of funding for rural Indigenous communities. In this report, I outline the current standards that are used to determine fiscal benefit quantums and introduce a benchmarking methodology that aligns with the principles of reconciliation and provides a uniform standard for fiscal benefits that can be applied across projects with differing

economic characteristics. Further, I show through a case study on TMX that the IBAs likely fall short in their objective to deliver an adequate share of fiscal benefits to communities and illustrate what a potential magnitude of fiscal benefits could be if a benchmarking methodology is employed. IBAs as tools of community development are very much still a work in progress. There is no right answer as to which benchmark is the most appropriate for determining the quantum of IBA benefits and more research is required to identify the strengths and weaknesses of various benchmarks. But it is clear that First Nations should use benchmarks as a reference point to evaluate IBA revenue proposals. It is the hope that the tools and recommendations outlined in this report aide First Nations who are negotiating IBAs and ultimately looking to equitably share in the benefits of natural resource development in Canada.

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Appendix A.

Summary of Indigenous Groups Consulted

Summary of Indigenous groups consulted by the federal government and the project proponent as part of the TMX consultation and accommodation process

Notes: **Bold** text denotes a First Nation that is likely to have signed an MBA. Red text denotes a First Nation that has signed a Commercial Agreement with the project proponent, which may not be the same as an MBA.

Alberta Indigenous Groups	
Treaty Six	
Nakhóda Peoples	**Alexis Nakota Sioux Nation (with Alexis Trappers Association)** **Paul First Nation**
Nehiyawak Peoples	**Alexander First Nation** **Enoch Cree Nation** **Ermineskin Cree Nation** Louis Bull Tribe Montana First Nation Papaschase First Nation **Samson Cree First Nation** **Sunchild First Nation**
Nakawē Peoples	**O'Chiese First Nation**
Treaty Seven	
Nakhóda Peoples	Stoney Nakoda First Nation
Sarcee Peoples	Tsuu'tina Nation
Treaty Eight	
Dane-zaa Peoples	Horse Lake First Nation
Nehiyawak Peoples	Driftpile Cree Nation Saddle Lake Cree Nation Sturgeon Lake Cree Nation

	Sucker Creek First Nation Swan River First Nation Whitefish (Goodfish) Lake First Nation
Non Status / Non Treaty	
Dane-zaa & Nehiyawak Peoples	**Aseniwuche Winewak Nation**
Metis	
Métis Peoples	Buffalo Lake Métis Settlement East Prairie Métis Settlement Kikino Métis Settlement Métis Nation of Alberta Métis Nation of Alberta – Métis Regional Council Zone 4 Métis Nation of Alberta – Gunn Métis – Local Council #55 (Lac Ste. Anne) Mountain Métis Nation Association
British Columbia Indigenous Groups	
B.C. Interior Indigenous Groups	
Dakelh [Carrier] Peoples	Lheidli T'enneh First Nation Lhtako Dene Nation
Nlaka'pamuxw Peoples	**Ashcroft Indian Band** Cook's Ferry Indian Band Kanaka Bar Indian Band **Nicomen Indian Band** Siska Indian Band
Nlaka'pamuxw Nation Tribal Council	Boothroyd Band Boston Bar Band Lytton First Nation Oregon Jack Creek Band Skuppah First Nation Spuzzum First Nation
Nlaka'pamuxw Peoples [Scw'exmx People Sub-Group]	Coldwater Indian Band **Lower Nicola Indian Band** Nooaitch Indian Band Shackan Indian Band
Okanagan Peoples	Lower Similkameen Indian Band Okanagan Indian Band Osoyoos Indian Band

	Penticton Indian Band Upper Nicola Band Upper Similkameen Indian Band Westbank First Nation
Secwepemc Peoples	Adams Lake Indian Band Bonaparte Indian Band **Canim Lake Band** Esk'etemc First Nation Little Shuswap Lake Indian Band High Bar First Nation (Llenlleney'ten) Neskonlith Indian Band Shuswap Indian Band **Simpcw First Nation** Skeetchestn Indian Band Splatsin First Nation Stswecem'c / Xgat'tem' [Canoe Creek Band] **Tk'emlúps te Secwe' pemc** Ts'kw'aylaxw First Nation [Pavilion Indian Band] **Whispering Pines / Clinton Indian Band** Williams Lake Indian Band Xats´ u¯ ll First Nation [Soda Creek Indian Band]
Tsilhqot'in Peoples	Toosey Indian Band
Lower Fraser River Indigenous Groups	
Downriver Halkomelem and Squamish Peoples	**Kwikwetlem First Nation** Musqueam Indian Band Squamish Nation Tsawwassen First Nation Tsleil-Waututh Nation
Upriver Halkomelem Peoples	Chawathil First Nation **Cheam First Nation** Katzie First Nation Kwantlen First Nation **Matsqui First Nation** **Peters First Nation** **Popkum First Nation** **Seabird Island Indian Band** **Shxw'o¯ whámel First Nation** Sts'ailes Nation **Union Bar First Nation** **Yale First Nation**

	Stó:lō Collective: Aitchelitz Band **Kwaw-Kwaw-Apilt First Nation** Leq'a:mel First Nation Scowlitz First Nation Shxwhá:y Village Skowkale First Nation Skwah First Nation Skawahlook First Nation Soowahlie First Nation Squiala First Nation Sumas First Nation **Tzeachten First Nation** Yakweakwioose First Nation
Vancouver Island and Adjacent Area Indigenous Groups	
Island Halkomelem Peoples	Cowichan Tribes **Halalt First Nation** **Hwlitsum First Nation** **Lake Cowichan First Nation** Lyackson First Nation **Penelakut Tribe** Snaw-naw-as (Nanoose) First Nation Snuneymuxw (Nanaimo) First Nation Stz'uminus (Chemainus) First Nation
Coast Salish Peoples	**Esquimalt Nation** **Malahat Nation** **Pauquachin First Nation** **Scia'new (Beecher Bay) Indian Band** **Semiahmoo First Nation** Songhees (Lekwungen) Nation Tsartlip First Nation Tsawout First Nation Tseycum First Nation **T'Sou-ke First Nation**
Southern Wakashan Peoples / Nuu-chahnulth	**Ditidaht First Nation** **Pacheedaht First Nation** Maa-nulth First Nations: Huu-ay-aht First Nations Ka:'yu:'k't'h'/Che:k'tles7et'h First Nations

	Toquaht Nation Uchucklesaht Tribe Ucluelet First Nation
Métis	
Métis Peoples	**BC Métis Federation** Kelly Lake Métis Settlement Society **Métis Nation of British Columbia**
Other Indigenous Groups	
Indigenous groups that were not consulted by the federal government and/or not recognized under the Indian Act, but were consulted by the project proponent	**Asini Wachi Nehiyawak (Mountain Cree) Traditional Band** **Foothills Ojibway (related to O'chiese** **Kelly Lake Cree Nation** **Nakcowinewak Nation of Canada**

Sources: Reconsideration, 2019; Consultation, 2019; APTN, 2018; Barrera, 2018

Appendix B.

Economic Model

Description:

The accompanying Excel workbook contains the economic forecasting model described in Chapter 5 and used in the quantitative assessment of the fiscal benefits provided to First Nations through IBAs associated with TMX.

Filename:

Dale_D_TMX_Model.xlsx

Appendix C.

IBA Best Practices

Best practices for evaluating IBAs developed from an exhaustive study of best practices in the IBA literature

Criteria	Sub-Criteria	Indicator
1. Is empowering	1.1 Every affected community is a participant in the IBA-making process.	● Were communities with legal rights at or around the project site consulted? ● Were communities with unrecognized legal rights at or around the project site consulted? ● Were communities who may experience downstream effects of the project consulted?
	1.2 Vulnerable and marginalized groups are included in the IBA-making process.	● Were any women, youth, or elder groups included in the IBA-making process? ● Was the IBA negotiator / negotiation team representative of marginalized interests (i.e. did the team include people from marginalized groups or was the team elected in a collaborative or democratic way)?
	1.3 Community sovereignty is maintained.	● Does the community relinquish any rights, such as governance or land monitoring powers, in the IBA?
	1.4 IBA funds are managed by the recipient community.	● Are the IBA funds managed by the recipient community?
	1.5 The community has its own goals and development plan, which the project is only a part of.	● Is there a development plan for the area? ● Do provisions have a long-term timeline, ideally post-project?
2. Respects local culture	2.1 Project employees take part in cross cultural training.	● Is there cross-cultural training available to project employees? ● Is cross cultural training mandatory for all employees?
	2.2 Traditional or community knowledge is included in the project design and management.	● Is traditional knowledge collected or known by the project designers? ● Is traditional knowledge used to design the project?
	2.3 Employment schedules accommodate community members' cultural needs.	● Are employee work schedules designed to suit cultural needs?
	2.4 The IBA addresses all project phases: construction, operation, and closure and reclamation.	● Does the IBA address the construction, operation, closure, and reclamation phases of the project? ● Is there a closure and remediation plan? ● Is the community involved in project closure and reclamation?

3. Is committed to	3.1 The IBA is negotiated in good faith.	● Is there indication the agreement was a signed in Good Faith, such as a signed agreement clause?
	3.2 The community-company relationship is trusting and is maintained.	● Do both the community and the company see the other party as trustworthy? ● Is there regular face-to-face interaction between company employees and community members?
	3.3 The agreement is seen as legitimate by the community.	● Is the negotiator or negotiation team representing the community seen as legitimate by the community? ● Is the agreement accepted as legitimate by the community?
	3.4 The company is committed to the agreement's success.	● Are employees, including upper-level employees, committed to and engaged with the IBA?
	3.5 The role of an IBA in the project approval process is clear.	● Is project approval contingent on concluding an IBA with the impacted community?
	3.6 The IBA does not replace government's role in supporting the community.	● Does the IBA affect governmental support of the community in any way?
4. Has open communication	4.1 A precursor agreement, such as a memorandum of understanding, is signed.	● Is there a signed, public precursor agreement? ● Does the precursor agreement outline the objectives and process of negotiating an IBA? ●
	4.2 The IBA, precursor agreement (if available), monitoring results and all other IBA relevant information are public.	● Is the agreement publicly available? ● Are the IBA's monitoring results publicly reported? ● Are the agreement and monitoring results available in the local language(s)?
	4.3 Communication between signatories continues throughout project.	● Is there a regularly scheduled meeting that community members and company employees can attend? ● Are community members and company employees able to bring up and discuss matters and grievances at this meeting? ● If applicable, is communication able to be done in the locally spoken language(s)?
	4.4 There is continuity in who is involved with the IBA making and implementation process?	● Is there staff continuity throughout IBA negotiation and governance? ●
5. Builds capacity	5.1 Each party's capacity is assessed	● Do parties have enough time to fully prepare for negotiations? ● Do parties have enough resources to participate in negotiations and implementation?
	5.2 Capacity building initiatives exist and are funded	● Is there funding for capacity building initiatives? ● Is there a job training provision? ● Is there a governance capacity supporting provision? ● Is there an education provision? ● Is there a business development provision? ● Is there a community development provision?

	5.3 There is a dedicated person in charge of employment and training of the local community.	● Is there a dedicated person in charge of employment and training of the local community?
	5.4 Capacity building provisions should be locally available.	● Are job training and capacity building initiatives located within the community(s)?
6. Is fair	6.1 No community member is worse off as a result of the project, after mitigation and compensation.	● Is there a provision to ensure that any member of the community adversely impacted by the project is compensated for the adverse effect?
	6.2 Financial benefits are scaled to the total project benefits.[13]	● Are financial benefits proportional to project benefits? ● Are financial benefits connected to project output?
	6.3 Financial benefits are delivered to suit community needs.	● Is the financial benefit delivery suitable for community means, likely meaning a mix of fixed and variable cash payouts?
	6.4 Contracts are designed for, and favour, local businesses.	● Do local businesses have an advantage in the contract bidding processes? ● Are contracts unbundled?
	6.5 Community members are preferentially hired.	● Are there provisions that support hiring community members? ● Are there provisions that support advancement of community members? ● Are there provisions that support retention of community members?
7. Is enforceable	7.1 The IBA includes a dispute resolution mechanism.	● Is there a provision for dispute resolution in the IBA? ● Is dispute resolution a jointly run process?
	7.2 The IBA is a legally binding document.	● Are provisions in strong enough language to be legally binding? ● Is the agreement legally binding?
	7.3 The IBA is jointly governed with a clearly outlined framework.	● Is there a clear IBA governance structure? ● Is the IBA jointly governed?
	7.4 The IBA's provisions have measurable targets.	● Do provisions have measurable targets?
	7.5 There are penalties for non-compliance with the IBA.	● Are there penalties for non-compliance with the IBA?
8. Is implemented	8.1 Each provision is included in an implementation plan.	● Are the following provisions included in an implementation plan: Employment provisions;

[13] Due to the inchoate nature of the literature about what is appropriate financing for IBAs, this sub-criterion must be left vague. A current CIRDI project is addressing this gap and its results can hopefully be used to refine this sub-criterion upon publication.

		Contracting provisions; Training and education provisions; Community development provisions?
	8.2 There is funding for IBA implementation.	● Is there funding to implement employment, business contracting, environment and culture protection, financial, training and education, community development, and closure and reclamation provisions?
	8.3 There is an overseer of IBA implementation.	● Is there a person or committee in charge of implementing the IBA? ● Is the implementation person or committee paid? ● Is the implementation person or committee unbiased or accountable to both the community and the company?
	8.4 The implementation process is collaboratively designed.	● Did the community and the company collaborate to design the IBA implementation process? ● Is each party's role in IBA implementation made clear?
9. Is monitored	9.1 Progress towards IBA objectives and project impacts are periodically monitored.	● Does a monitoring plan exist? ● Are all appropriate provisions and impacts being monitored? ● Is monitoring being done with appropriate metrics? ●
	9.2 The community and the company jointly monitor the project and the IBA.	● Are all agreement signatories involved in monitoring?
	9.3 A baseline assessment of the environmental, cultural, and socioeconomic conditions of the community is conducted.	● Is there a baseline environmental assessment? ● Is there a baseline socioeconomic assessment? ● Is there a baseline cultural assessment? ● Is the community involved in all the baseline assessments?
	9.4 There is adequate funding for monitoring.	● Does the IBA include a provision to fund project and IBA monitoring?
10. Is adaptive	10.1 IBA deficiencies that have been identified in monitoring must be mitigated.	● Is there a provision requiring monitoring results to be mitigated?
	10.2 There is a process for amending the agreement.	● Is there a process by which the parties can re-open the IBA for negotiation?

Source: Cascadden et al., 2018