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**REDUCING TRANSACTION COSTS
ON INFRASTRUCTURE CORRIDOR
PROJECTS IN CANADA**

**ANDRÉ LE DRESSAY
JASON CALLA
JASON REEVES**

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FOREWORD

THE CANADIAN NORTHERN CORRIDOR RESEARCH PROGRAM PAPER SERIES

This paper is part of a special series in *The School of Public Policy Publications*, investigating a concept that would connect the nation's southern infrastructure to a new series of corridors across middle and northern Canada. This paper is an output of the Canadian Northern Corridor Research Program.

The Canadian Northern Corridor Research Program at The School of Public Policy, University of Calgary, is the leading platform for information and analysis on the feasibility, desirability, and acceptability of a connected series of infrastructure corridors throughout Canada. Endorsed by the Senate of Canada, this work responds to the Council of the Federation's July 2019 call for informed discussion of pan-Canadian economic corridors as a key input to strengthening growth across Canada and "a strong, sustainable and environmentally responsible economy." This Research Program will benefit all Canadians, providing recommendations to advance the infrastructure planning and development process in Canada.

All publications can be found at <https://www.canadiancorridor.ca/the-research-program/research-publications/>.

Dr. Jennifer Winter
Program Director, Canadian Northern Corridor Research Program

REDUCING TRANSACTION COSTS ON INFRASTRUCTURE CORRIDOR PROJECTS IN CANADA

André Le Dressay

Jason Calla

Jason Reeves

RESEARCH QUESTIONS AND KEY MESSAGES

We were asked to address five research questions. In this section we present each question and some brief key messages from our research in response:

- 1) What are the barriers and costs for greater Indigenous participation and support for infrastructure corridor projects?

There are significant and systemic barriers for greater Indigenous support of infrastructure corridor projects related to historic mistrust; poor fiscal, infrastructure and environmental jurisdictional clarity and co-ordination between governments; and an absence of standards, procedures, transparency and institutional support for interested Indigenous nations to participate in these projects.

- 2) What governmental funding and financing programs and tools are available to facilitate infrastructure development and operation by and for Indigenous communities and how effective are these programs?

There are some government programs available to reduce these barriers, but they are almost always intended to address the symptoms of high transaction costs and not the systemic causes. They may be helpful in some cases, but we believe only Indigenous-led institutional change and Indigenous jurisdiction can permanently reduce the systemic causes of these high transaction costs.

- 3) What Indigenous jurisdictions and institutions financing and funding tools are Indigenous communities employing to develop and operate infrastructure projects in their communities and to participate in infrastructure corridor projects?

We identify an emerging Indigenous-led institutional and legislative framework in the *First Nations Fiscal Management Act* and *First Nations Land Management Act* that, with expansion and improved co-ordination, could address the root fiscal, economic, environmental, jurisdictional, access to capital, capacity, governance and transparency causes of these costs and barriers.

- 4) What are successful examples of Indigenous infrastructure corridor partnerships and initiatives that support Indigenous-led infrastructure development initiatives and how effective are they in reducing the barriers and costs?

We identify and discuss the work of the First Nations Major Projects Coalition related to a natural gas pipeline corridor project as a potentially successful model for future projects. We assert that if the work of the First Nations Major Projects Coalition is co-ordinated with the institutional, jurisdictional and access-to-capital support from the *First Nations Fiscal Management Act* and *First Nations Land Management Act*, then this project's benefits will increase for participating Indigenous nations and other governments.

- 5) What are the barriers to Indigenous partnerships or ownership, i.e., in terms of financing infrastructure projects?

Indigenous governments don't receive a stable fiscal benefit from their participation in resource and corridor projects as other governments do. We identify a proposal for a First Nations resource charge that could address this issue and that provides secure, stable revenue for First Nations to participate in equity positions in infrastructure projects, should they choose. These stable revenues could be security for possible First Nations Finance Authority debentures which currently have an A+ credit rating.

ABSTRACT

Infrastructure corridors are among the most complicated transactions in Canada. Establishing a pre-determined corridor and completing linear infrastructure projects within it requires transactions related to property rights, infrastructure planning, design, construction, financing, operation and maintenance, securing public support or social licence, and because of the long overdue recognition of Indigenous rights and title, informed support from affected Indigenous communities. This paper uses a comparative systems analysis to identify specific transaction costs in four areas — historic, infrastructure development process, fiscal and economic systems. We argue these transaction costs can be significantly reduced by systematically implementing Indigenous fiscal, infrastructure and lands jurisdictions because this will permanently ensure that Indigenous communities and people are able to receive similar fiscal and economic benefits generated from infrastructure corridor projects as those enjoyed by other Canadians and other governments.

EXECUTIVE SUMMARY

High transaction costs often arise because a lack of procedural and system standards creates inefficiencies and uncertainty for securing property rights. In the absence of land, jurisdictional or property rights clarity, ad hoc attempted solutions dominate these systems. In the absence of a process certainty, ad hoc attempted solutions are perpetuated and high transaction costs linger.¹

Infrastructure corridor projects in Canada face high transaction costs because of little clarity between Indigenous rights and jurisdictions and those of other governments. These costs are higher in part because of a lack of efficiencies throughout the infrastructure lifecycle (planning, design, procurement, construction, financing, operation, maintenance and replacement or decommissioning) and because the legal, economic and fiscal requirements to include Indigenous people and governments in these projects almost always leads to ad hoc solutions. In the absence of a process to address the systemic causes of these high transaction costs, they will linger and infrastructure corridor projects will be more difficult to complete.

We focus on the transaction costs associated with recognizing Indigenous rights and title and securing Indigenous support through greater fiscal and economic participation in infrastructure corridor projects. We use a comparative systems approach and focus on four broad sources of transaction costs to secure Indigenous support — historic, infrastructure lifecycle requirements, inadequate Indigenous fiscal and environmental jurisdiction implementation and inadequate economic participation.

¹

This story of high infrastructure corridor transaction costs is not unique and is also prevalent for investment facilitation in general on First Nations lands (Richard et al. 2009).

Our findings are not surprising. The colonial legacy of legislating Indigenous people out of the economy and Indigenous governments and their jurisdictions from the federation has created numerous transaction costs related to at least mistrust of centralized governments; differing capacities to support projects and negotiations; unstandardized agreements with unstandardized fiscal, environmental and economic elements; and confusion about governance and representation.

We identify two broad strategies to reduce these transaction costs: targeted federal and provincial programs and decentralized Indigenous jurisdictions supported by Indigenous-led institutions. We find that the program approach fails because of mistrust and that programs are almost always designed to address the symptoms of high transaction costs and not the systemic causes. Moreover, they also can support bureaucratic bloat, which can increase, instead of decrease, transaction costs.

We suggest that a better approach is to support the implementation of Indigenous fiscal, financial, lands, infrastructure, economic and environmental jurisdictions supported by Indigenous-led institutions. We assert that transaction costs caused by systemic issues cannot be effectively reduced by programs, but instead require institutional approaches that support jurisdictional implementation and innovation. We identify many Indigenous-led institutions that could support the systematic reduction of the transaction costs for greater Indigenous fiscal and economic participation in infrastructure corridor projects.

For fiscal, financial, economic and infrastructure jurisdictions this includes the First Nations Tax Commission, the First Nations Financial Management Board, the First Nations Finance Authority, the Tulo Centre of Indigenous Economics and the proposed First Nations Infrastructure Institute. For lands, environmental and economic jurisdictions, this includes the First Nations Land Resource Centre and the First Nations Major Projects Coalition. Many of these institutions operate under legislative frameworks, such as the *First Nations Fiscal Management Act* and the *First Nations Land Management Act*, that provide an effective process to implement these jurisdictions in the federation. More than half of First Nations in Canada participate in either the *First Nations Fiscal Management Act*, the *First Nations Land Management Act*, or both.

We observe that these institutions have begun to work together to co-ordinate their services and advance jurisdictional and institutional innovations to further reduce transaction costs for infrastructure corridor and other Indigenous economic initiatives. We recommend that expanding the support of these institutions, encouraging greater co-ordination among them and implementing more Indigenous jurisdictions along infrastructure corridors is the most effective way to reduce transaction costs and secure more economic and fiscal benefits for Indigenous people and governments, and all Canadians.

The table below summarizes the infrastructure corridor transaction costs identified in this paper, the source of those costs and a proposed Indigenous institutional/ jurisdictional strategy to reduce costs.

Transaction Cost	Source	Proposal
Historical Context		
Mistrust of federal and provincial governments impeding changes necessary for comprehensive participation	Ongoing colonial legacy of denying Indigenous rights, title and jurisdiction	Indigenous-led strategy to build First Nations institutions and assert jurisdictions
Infrastructure Development Systems		
No mechanism to translate fiscal and economic benefits of corridor projects into community infrastructure projects	External control of community infrastructure development process	Proposed First Nations Infrastructure Institute
Lack of land management jurisdiction and inefficient land registry framework within ancestral lands	Land management and land title restrictions imposed by <i>Indian Act</i>	<i>First Nations Land Management Act</i> and proposed national land registry system
Limited administrative capacities, access to technical expertise and support networks	Limited assertion of jurisdiction over infrastructure development	Proposed First Nations Infrastructure Institute and Tulo Centre of Indigenous Economics
Poorly specified Indigenous fiscal relationship with inadequate fiscal powers	Limited taxation options contribute to dependency	Proposed First Nations resource charge
Fiscal Relations		
Negotiation of preliminary consultation agreements	Indigenous jurisdictions inadequately recognized or implemented	Proposed First Nations resource charge and Indigenous environmental jurisdiction
Negotiated payments from proponents (pseudo-taxation) or revenue sharing with provinces (second-hand taxes)	Limited Indigenous taxation jurisdiction	Proposed First Nations resource charge
Non-standardized agreements and non-standardized payments	Lack of institutional support and transparency	First Nations Major Projects Coalition and First Nations Financial Management Board
Transfer-oriented fiscal relationship adds an additional fiscal co-ordination transaction cost	Too little fiscal and regulatory jurisdiction for Indigenous governments	<i>First Nations Fiscal Management Act</i> , fiscal powers and institutional supports
Economic Participation		
Provincial and Indigenous governments share concurrent environmental jurisdiction	Few Indigenous environmental assessment jurisdictions implemented and lack of institutional support	<i>First Nations Land Management Act</i> and First Nations Major Projects Coalition
Costs of capacity development and training to ensure employment quotas often underestimated	Nature of private sector's relationship with Indigenous governments	Tulo Centre of Indigenous Economics and First Nations Major Projects Coalition
Lack of home equity hampers business start-ups and makes it difficult to achieve business opportunity quotas	Land tenure restrictions imposed by the <i>Indian Act</i>	Lands Advisory Board's proposed national land registry system
Equity stake agreements require collective governance and access to credit and/or secure public revenue streams	Lack of framework for collective governance and limited secure revenue stream options	Major Projects Coalition, First Nations Tax Commission and First Nations Finance Authority

INTRODUCTION

An infrastructure corridor is essentially a pathway of multimodal rights-of-way connecting communities and major resource projects, within which the development of linear infrastructure projects, such as highways, railways, transmission lines, communications lines and oil and gas pipelines can take place. A pre-approved infrastructure corridor has appeared in the literature to achieve economies of scale and realize fiscal benefits (Coleman et al. 2021). Moreover, a group of First Nations leaders from Treaty 8 territory, representing 40 First Nations in B.C., Alberta and Saskatchewan, are proposing an energy corridor through Western Canada (Bakx and Normand 2021). The challenge facing this group, and others seeking to establish infrastructure corridors in Canada, is designing effective strategies to reduce the transaction costs identified in this paper.

Energy and transportation infrastructure corridors are required to bring Canadian resources to ports for exports and to distribute energy and other resources domestically. The expanding recognition of Indigenous rights, title and jurisdiction by courts, governments and industry has led to rising transaction costs for securing tenure and social licence for energy and resource infrastructure corridors.

In 1937, in *The Nature of the Firm*, Coase identified transaction costs as the costs of using the price mechanism to co-ordinate economic activity. Use of the term transaction costs in this paper follows Coase's general definition; transaction costs are those additional costs necessary to successfully complete an economic transaction, trade in a market or transfer an interest. The types of costs can include additional financial premiums or margins, increased timeframe requirements or added inconvenience to complete a transaction. Simple examples of transaction costs include those added costs associated with searching for relevant information; bargaining or negotiating an agreement or contract; monitoring and, where necessary, enforcing the terms of a contract; or compensating for added risk or uncertainty. These are simple examples, but this paper identifies many specific transaction costs associated with infrastructure corridor projects.

These higher transaction costs have harmed the Canadian resource project investment climate (Bishop and Sprague 2019) at exactly the time when increased productivity is crucial for the fiscal sustainability of Canadian and Indigenous social programs and public infrastructure. As just one example project, consider the Trans Mountain Expansion Project, which had an estimated cost of \$5.4 billion when the initial application was made to the National Energy Board (now Canada Energy Regulator) in December 2013. It is now estimated to cost \$12.6 billion with an expected in-service date of December 2022. To be clear, we are not suggesting this increase in project cost and timeframe is entirely attributable to greater recognition of Indigenous rights, title and jurisdiction, but it is certainly a contributing factor.

Our research uses a First Nations infrastructure project and fiscal systems case study approach to identify the source of these higher transaction costs and some proposals to reduce them. Our analysis identifies that these higher transaction costs are caused by:

- Mistrust of other governments;
- Expanded federal and provincial Indigenous relations bureaucracies;
- Loss of collective Indigenous governance frameworks;
- A poorly specified Indigenous fiscal relationship with inadequate fiscal powers;
- An unstandardized, program-based infrastructure development system; and
- Indigenous capacity constraints for infrastructure projects, economic participation, jurisdiction implementation and public sector innovation systems.

Emerging proposals to create a national First Nations Infrastructure Institute (FNII), models to support collective governance, a First Nations resource charge, Indigenous ownership of resources and infrastructure and existing frameworks such as the *First Nations Fiscal Management Act* (FMA) could reduce these transaction costs and improve the Canadian infrastructure corridor and resource project investment climate.

As just one transaction cost example, consider that because of the *Indian Act* it is often necessary to include the federal government in an infrastructure or infrastructure servicing negotiation between Indigenous and local, regional or provincial governments. As a result, the federal bureaucracy is involved in a negotiation and has to agree and support the outcome. This significantly increases transaction costs. To reduce these costs, the Indigenous-led institutional and jurisdiction strategy proposed in this paper is for interested First Nations to implement their fiscal powers available under the FMA using the support of the First Nations Tax Commission (FNTC). This would reduce this transaction cost in two ways. First, the Indigenous government would implement similar fiscal tools (taxes) as local, regional and provincial governments to pay for similar infrastructure lifecycle costs. This supports the efficient negotiation of service and infrastructure cost-sharing agreements and supports a more sustainable infrastructure system. Second, the standards and institutional support of the FMA framework provide Indigenous resources and capacity to support more efficient negotiations between Indigenous and local, regional or provincial governments. The addition of the proposed FNII (within the FMA framework) will further increase this capacity support and reduce these fiscal co-ordination transaction costs even more.

OVERVIEW

We have divided this paper into four sections. The first provides a summary of the First Nations rights, title, jurisdiction and institutional development work during the last 150 years. This provides the rationales for the requirement to secure Indigenous support for infrastructure corridor and resource projects, the potential scope and magnitude of those requirements and the source of one of the highest transaction costs — mistrust.

The second section compares the common steps in a Canadian infrastructure project to the procedures for a First Nations infrastructure project and the additional steps for a major infrastructure corridor project. It identifies the higher transaction costs for Indigenous infrastructure projects and their sources.

The third section compares the non-Indigenous infrastructure corridor fiscal and economic systems to the Indigenous fiscal and economic systems. It identifies the differences, their impact on transaction costs and their underlying sources.

The fourth section provides a comprehensive proposal to systematically reduce all identified transaction costs by expanding the emerging Indigenous institutional support, standards, revenue-based fiscal relationship and jurisdictional implementation frameworks.

SOME HISTORICAL CONTEXT

All future major infrastructure corridor projects in Canada will require significant support from the Indigenous communities and governments along their route. Securing that support must initially overcome the high cost of mistrust resulting from Canada's still ongoing colonial legacy of denying and suppressing Indigenous rights, title and jurisdiction. This is not a history paper, so, for our purposes, citing some of the vast literature about Canada's colonial past (Narcisse 2016; British Columbia Legislative Assembly 1876; Tennant 1990; Alcantara 2013; Harris 2003) is sufficient to make four observations:

- The formation of the Canadian federation denied the pre-existing (inherent) title, rights and jurisdictions of Indigenous governments. This was accomplished

through policy,² treaties, reserve creation³ and legislation⁴ such as the *Indian Act*. Just one of many egregious examples was the 1927 amendment to the *Indian Act* that formally removed the fiscal power for Indigenous governments to raise money to pursue a land claim;⁵

- The modern struggle to renew title, rights and jurisdiction was inspired by the Indigenous leaders' near-universal rejection of the 1969 federal white paper⁶ and has proceeded along two paths⁷ since then: (i) rights and title recognition; and (ii) governance and institutional restoration.⁸ Federal and provincial governments have resisted both paths for the last 50 years.⁹ Consider the number of cases in which the federal and/or provincial governments have appeared in court arguing

² Indigenous governments were not even provided title to their own reserves. This decision was initially made in 1839, prior to the formation of Canada, via statute (the *Crown Lands Protection Act*), which classified Indian lands as Crown lands and affirmed those lands as property of the Crown (to be protected by the Crown).

³ In B.C., a short time after their creation, the size of many reserves was dramatically reduced through cut-offs by Joseph Trutch, chief commissioner of lands and works at the time, and later B.C.'s first lieutenant governor. Then, the McKenna-McBride Commission, jointly established by the federal and provincial governments in 1912 to resolve the Indian land question, detached higher value lands and added lower value lands to reserves in B.C. When detached lands were sold, half the province received half the proceeds while the other half was held in trust by the Department of Indian Affairs. The purpose of the McKenna-McBride Commission was to achieve a final settlement of the land questions, without a mandate to consider the issue of title, which was central from a First Nations perspective.

⁴ The Indian Act is the fourth oldest piece of legislation in Canada, but is still the primary mechanism that directs how the federal government interacts with First Nations and administers reserves. Duncan Campbell Scott spent 50 years in the Department of the Interior (the predecessor to Indian Affairs) and was deputy minister. During this time, a number of assimilationist amendments to the Indian Act were passed that severely limited the governmental powers of First Nations, hampered economic participation opportunities, discouraged cultural practices and made attendance at Indian residential schools compulsory. In fact, it was Duncan Campbell Scott, aware of the report from the Department's chief medical officer documenting the inhuman and unsanitary conditions in Canada's residential schools and the roughly 25 per cent death rate among students, who said: "*It is readily acknowledged that Indian Children lose their natural resistance to illness by habituating so closely in the residential schools and that they die at a much higher rate than in their villages. But this does not justify a change in the policy of this department which is geared toward a final solution of our Indian problem.*"

⁵ In 1927, the federal government accepted a request by the Allied Tribes to appoint a joint committee of the House and Senate to address the land question and title in particular. The cynicism which accompanied the 1927 hearings is probably best indicated by the fact that the government was implementing its policy for stopping claims against the government even as they were holding hearings on title. Amendments to the *Indian Act*, that are now known as the prohibition of funds, were being passed while the hearings were actually taking place. In fact, the prohibition of funds passed third reading in February 1927, before the hearings even commenced in March that year.

⁶ A conference in B.C. in November 1969 resulted in the creation of the Union of British Columbia Indian Chiefs, an organization that rejected the White Paper and published the Brown Paper that asserted Indigenous peoples continued to hold title to land. The National Indian Brotherhood was incorporated in 1970, later becoming the Assembly of First Nations, and in June of that year, presented the Indian Association of Alberta's Citizens Plus, which became known as the Red Paper. It responded to the White Paper and defended Indigenous rights to lands and self-determination.

⁷ Broader descriptions of these two strategies are available in Terry Anderson's *Unlocking the Wealth of Indian Nations*, 2016.

⁸ In this paper, the institutional approaches of interest include the institutions established under the *First Nations Fiscal Management Act* and *First Nations Land Management Act* and the First Nations Major Projects Coalition, although there are many other Indigenous institutional and governance innovations.

⁹ Consider the numerous programs and interventions offered by the federal and many provincial governments, as well as the significant growth of Indigenous relations bureaucracies within the federal and all provincial governments, instead of greater support for Indigenous government and institutional development.

against greater recognition of Indigenous rights and title or the fact the B.C. Treaty Process still rejects the Indigenous-led institutional framework;

- The rights and title strategy has been successful and Indigenous rights and title have been recognized by the courts¹⁰ in s. 35 of the Canadian Constitution¹¹ and in the creation and recent legislative implementation commitment to the United Nations Declaration on the Rights of Indigenous Peoples;¹²
- The Indigenous-led institutional restoration strategy is necessary to efficiently¹³ implement the rights and title victories, but to be effective, it must support more economically and fiscally sustainable Indigenous communities and governments.¹⁴ In this regard, the Indigenous-led institutional restoration strategy has had success closing some Indigenous systemic gaps for fiscal powers, investment facilitation costs and access to credit,¹⁵ but this progress is only on reserves and not on ancestral lands that infrastructure corridors traverse.¹⁶

¹⁰ Including *Calder v. Attorney-General of British Columbia*, [1973] SCR 313; *Guerin v. The Queen*, [1984] 2 SCR 335; *Delgamuukw v. British Columbia*, [1997] 3 SCR 1010; *Tsilhqot'in Nation v. British Columbia*, 2014 SCC 44; and *R v. Desautel*, 2021 SCC 17.

¹¹ Subsection 35(1) of the Constitution states: "The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed."

¹² The United Nations General Assembly adopted the United Nations Declaration on the Rights of Indigenous Peoples in 2007 and Canada first endorsed the Declaration, with qualifications, in 2010. In 2016, the federal government fully endorsed the Declaration without qualification and committed to its full and effective implementation. In June 2021, Bill C-15 received Royal Assent, providing a way for the government of Canada to work with Indigenous peoples to implement the Declaration. In B.C., the provincial government passed the *Declaration on the Rights of Indigenous Peoples Act* in 2019, which sets out a process to align B.C.'s laws with the Declaration.

¹³ There are two paths to implement Indigenous jurisdiction: (i) modern treaties and self-government agreements; or (ii) the institutional approach. Since the government of Canada's Comprehensive Land Claims Policy in 1973 and the B.C. Treaty Process in 1992, there have been fewer than 30 self-government agreements ratified, involving fewer than 50 Indigenous communities. Alternatively, over 300 have used the institutional approach in the last 15 years. The institutional approach also provides an orderly transition path to Indigenous jurisdiction that addresses concurrency issues with federal and provincial governments and reduces switching (implementation) costs for Indigenous governments.

¹⁴ These terms are defined in the Tulo Centre of Indigenous Economics 2018 working paper, "*Renewing Indigenous Economies through Creative Destruction*," and refer to sufficient fiscal powers, jurisdictional space and capacity to innovate in a manner that maintains a competitive advantage in response to economic shocks.

¹⁵ The *First Nations Fiscal Management Act* has expanded fiscal powers and resulted in Aa3 (Moody's, May 2021) and A+ (S&P, August 2020) credit ratings for its members; and some *First Nations Land Management Act* communities have reduced land tenure transaction costs significantly. But many systemic gaps remain for infrastructure, credit, investment facilitation, etc. An Outline for a Comprehensive First Nations Fiscal Management Act Indigenous Recovery Strategy posted on the news portion of the Tulo Centre of Indigenous Economics website provides the following descriptions of these systemic gaps: (i) the fiscal power gap is the difference between taxes currently collected by Indigenous governments and the amount they could potentially contribute to services and infrastructure; (ii) the investment facilitation gap can be measured by the additional time required to facilitate a major project or complete business transactions when they take place on Indigenous lands; (iii) the credit gap refers to the difference in the amount of credit accessed by the Indigenous population and the amount of credit accessed by the Canadian population as a whole.

¹⁶ The First Nations Tax Commission and the Lands Advisory Board have recently proposed innovations to expand fiscal powers and land management jurisdictions so they can be extended off reserve. The First Nations Tax Commission innovation is discussed later.

Our two conclusions from these observations are straightforward. First, the extensive rights and title recognition victories during the last 50 years have made it necessary for comprehensive Indigenous economic and fiscal¹⁷ participation in all infrastructure corridor projects to secure their support. Stated more simply, there will not be future major infrastructure corridor projects in Canada without substantial Indigenous economic and fiscal participation. Second, there is too much distrust of federal and provincial governments among Indigenous groups for them to successfully advance the necessary systemic changes for comprehensive Indigenous participation.¹⁸ Any such strategy must be Indigenous-led.

In the next two sections we identify the infrastructure development system and fiscal and economic benefit transaction costs that must be reduced to facilitate infrastructure corridor and major resource projects in Canada. Our assertion is that the Indigenous institutional strategy provides the most efficient and, potentially, the most effective path to secure Indigenous support for infrastructure corridor projects in Canada because it reduces the Indigenous historical, infrastructure, fiscal and economic benefit transaction costs with these projects.¹⁹

INFRASTRUCTURE DEVELOPMENT SYSTEMS: A COMPARATIVE ANALYSIS

This section uses research and analysis on the current program-based system and the best practice-based system to develop community infrastructure projects, such as roads, water and wastewater, on First Nations reserve lands. Comparative analysis of these systems (to develop community infrastructure projects on First Nations reserves) can be applied to large resource and energy corridor infrastructure projects (through Indigenous territories) because the best-practice process is similar in both systems. To be effective and ultimately successful, the project development process must be economically, fiscally, environmentally, socially and culturally sustainable for both community infrastructure projects and for corridor infrastructure projects. In this paper, these terms are defined as follows:

- Economic sustainability means the infrastructure project is developed and implemented in a manner that promotes long-term economic growth

¹⁷ Economic refers to benefits to individuals or corporations such as employment, income and profits; and fiscal refers to benefits to communities through taxes and other government revenues.

¹⁸ The potential for this distrust to grow is increasing as federal and provincial governments make significant commitments to reconciliation, s. 35 implementation, the United Nations Declaration on the Rights of Indigenous Peoples, the Truth and Reconciliation Commission recommendations and others, without delivering effective methods to reduce the systemic gaps.

¹⁹ The specific development and implementation costs for an Indigenous-led institutional and jurisdiction strategy are not addressed here. An interesting question for further research is a comparison of the costs and results of such a strategy compared to the costs and results of other strategies. One possible method could be a comparison of the implementation and ongoing costs of the *First Nations Fiscal Management Act* institutional framework to that of Indigenous Services Canada for similar support and of the costs for self-government and modern treaty negotiations and implementation as an alternative means to implement Indigenous jurisdictions.

and development, improves the investment climate to facilitate greater investment over the long term, supports continued education and training of the labour force and does not negatively impact other aspects of the present or future economy;

- Fiscal sustainability means the infrastructure project is developed and implemented in a manner that uses appropriate funding sources and fiscal tools to recover all project lifecycle costs according to principles of fairness and equity, ensuring sufficient resources to maintain service delivery at specified quality levels over intended design life without causing debt to rise continuously;
- Environmental sustainability means the infrastructure project is developed and implemented in a manner such that it responsibly interacts with the natural environment and natural resources, protects long-term health and safety and does not jeopardize the ability of future generations to meet their needs;
- Social sustainability means the infrastructure project is developed and implemented in a manner that appropriately manages impacts on affected community members, is consistent with their vision and plan and supports over-arching societal objectives, while respecting social diversity;
- Cultural sustainability means the infrastructure project is developed and implemented in a manner that respects the values, customs, heritage and ways of life of affected communities and appropriately uses current practices and processes that may be rooted in tradition.

Indigenous community infrastructure outcomes have been well below national standards (Office of the Auditor General 2021; Senate Standing Committee on Aboriginal Peoples 2015; National Indigenous Economic Development Board 2019; Assembly of First Nations 2016; Indigenous Services Canada 2021). As a result, many Indigenous governments would like to assert more jurisdictions over their infrastructure and related processes.

INDIGENOUS INFRASTRUCTURE SYSTEM

The Indigenous community infrastructure system is program-driven, whereas the best-practice approach provincial and local governments use is a jurisdiction-based system.

The Program-Driven Infrastructure Development System

Much of the community infrastructure on First Nations reserve lands was, and is, developed under the federal government's Capital Facilities and Maintenance Program (CFMP). There are three funding streams in the program.²⁰ Capital projects over \$1.5 million are subject to Indigenous Services Canada's (ISC) national priority ranking framework (not the objectives or priorities of the Indigenous government).

²⁰

The streams include (i) operations and maintenance funding; (ii) minor capital, involving projects valued under \$1.5 million; and (iii) major capital, for projects over \$1.5 million in value.

CFMP funding for capital projects is managed through regional capital plans, which identify infrastructure projects that each ISC regional office plans to undertake over the next five years. First Nations can submit their community-level infrastructure investment plan to the ISC regional offices in September each year. The regional office prioritizes these community-level projects into its regional plan. ISC headquarters uses these regional plans to assemble an annual national First Nations infrastructure investment plan, based on its own national priority ranking framework, a planning tool that helps ISC to direct limited capital funding. ISC's national capital management board and the regional investment management boards manage setting the infrastructure project priority. Owing to the national priority ranking framework, ISC acknowledges that "many worthwhile projects are deferred due to the need to fund projects with more immediate health and safety impacts" (Indigenous Services Canada 2015). As with any program-based system, there is a disconnect between control and consequence. A 2015 audit of the CFMP states: "CFMP funding is easily strained when the Department finds it must reallocate some of it towards statutory obligations, education, social programming and other federal priorities" (Crown-Indigenous Relations and Northern Affairs Canada 2015). The federal government's view is that infrastructure on First Nations lands is not a statutory obligation; it is instead a social policy decision and First Nations are left to suffer the consequences of an inadequate program-based infrastructure system.

The Jurisdiction-Based Infrastructure Development System

A jurisdiction-based system better connects control with consequence. Provincial and local governments can assert their respective jurisdictions, develop better infrastructure projects and enjoy higher standards and service qualities from those assets.

Typically, local and provincial governments use the jurisdiction-based infrastructure development system to develop projects more sustainably. The process can be generally described in four phases.

In the first phase, local and provincial governments benefit from more comprehensive integration of community, economic, land use, capital and financial planning processes. Effective land management jurisdictions are available in this system to implement required land tenure instruments necessary to ensure secure land tenure for projects.

Sound business cases are developed for infrastructure projects in the second phase of the jurisdiction-based system. In this system, local and provincial governments assert their jurisdictions related to identification of objectives and community priorities, technical solution identification and review, identification and evaluation of procurement options, sustainable financial management, cost recovery and fiscal powers and governance and risk management framework.

In the third phase, local and provincial governments assert jurisdictions related to procurement processes and implement the preferred procurement model. These governments control the development and issuance of procurement documentation, the identification of evaluation criteria and methodology and the selection of preferred bidders.

Finally, local and provincial governments assert their jurisdictions related to all aspects of project implementation and operations in the fourth phase of the jurisdiction-based process. This includes jurisdictions related to design and construction processes, project financing and fiscal powers, operations and maintenance planning and activities, asset management and lifecycle sustainability functions through to decisions at end-of-life events such as decommissioning and replacement.

INDIGENOUS COMMUNITY INFRASTRUCTURE PROGRAM SYSTEM TRANSACTION COSTS

In 2017, Urban Systems completed a comparative analysis of the two systems described above, including the federal government's program-based system to develop community infrastructure on First Nations reserves and the best-practices jurisdiction-based system used by local governments (Urban Systems 2017). This study reveals at least three higher transaction costs associated with the program-based system.

First, Urban Systems found that the timeframe to develop infrastructure projects through the program-based system is generally longer than the time required for local governments to develop similar projects using the jurisdiction-based approach. Two factors contribute to this longer timeframe for review and approval associated with the federal process, relative to the local process. Within the jurisdiction-based system most review is handled locally in a single-stage process. There is a multiple-stage review process in the program-based system involving the federal and regional levels. As well, the land tenure and land registry framework cause delays in securing necessary rights-of-way relative to the jurisdiction-based system.

The second relevant transaction cost results from lower local administrative capacity for infrastructure development procedures within the program-based system. The jurisdiction-based system requires official community planning processes and their integration with capital, zoning and land use planning and development and subdivision approval processes, as well as other infrastructure-related bylaws. But these processes, if carried out, are only done so in an ad hoc fashion within the program-based system, dependent upon specific funding and program requirements. Local government administrations also benefit from access to technical expertise and established support networks absent from the program-based system.

Fewer fiscal options throughout the phases of the project lifecycle within the program-based system are the third additional transaction cost. Limited fiscal powers available to First Nations governments mean fewer financing options, fewer operations and maintenance cost recovery tools and less ability to contribute to reserve funds for

lifecycle renewal costs, relative to those enjoyed by local governments. This contributes to the shorter operational lifecycles of infrastructure assets on reserve.

INDIGENOUS INFRASTRUCTURE TRANSACTION COSTS IN CORRIDOR PROJECTS

Support for corridor infrastructure projects through Indigenous territories requires Indigenous participation opportunities. The higher transaction costs identified above, within the program-based community infrastructure system, also exist for Indigenous participation in corridor infrastructure projects within their ancestral territories:

- Corridor infrastructure project approval requires community support. Without mechanisms for supportive Indigenous governments to translate fiscal and economic benefits generated by corridor projects into community-based infrastructure projects and economic opportunities benefiting community members, corridor projects will face additional transaction costs.
- This transaction cost arises from legislating Indigenous people and governments from the economy and federation. As a result, the federal government often exercises fiscal and infrastructure jurisdictions “for the benefit” of Indigenous communities. Specifically, the federal government controls many of the critical stages of the Indigenous community-based infrastructure project development process. This contributes to the poor infrastructure outcomes widely reported in many Indigenous communities across the country. Indigenous governments that assert control over their own community infrastructure development through a process in which they are able to use the fiscal benefits derived from large infrastructure corridor or major resource projects to improve local services and benefit from better infrastructure are more likely to see greater community support for such projects;
- Corridor infrastructure projects can require secure property rights through multiple Indigenous title lands and ancestral territories. The absence of Indigenous land management jurisdictions and a land registry framework within their ancestral lands raises property rights transaction costs for these projects.
- The source of this transaction cost is that the Indian Act creates a state-trustee relationship for land and does not provide the appropriate statutory basis for First Nations to re-assert their land management jurisdictions. The federally maintained deeds-based land registries are particularly problematic, raising search costs, increasing timeframes and adding title insurance costs to many transactions, relative to provincial Torrens-based land title systems;
- Lower administrative capacities in many Indigenous governments, limited access to technical expertise and support networks slow Indigenous decision-making processes during corridor project planning and raise transaction costs.

- The source of this transaction cost is that the *Indian Act* is the fourth oldest piece of legislation in Canada and has meant Indigenous governments have had limited assertion of jurisdiction over infrastructure project development processes for the last 150 years. Other governments have implemented substantial infrastructure management and development during this time;
- Inadequate access to a wider variety of fiscal powers among Indigenous governments means federal support is required for Indigenous participation in corridor projects, which also increases costs.²¹
- This transaction cost is because the fiscal framework of Canada excluded Indigenous governments. In 1927, it was made a crime for Indigenous governments to raise taxes from their members in case it was used to support a title claim. Despite some progress, the fiscal revenue raising gap between Indigenous and other governments in Canada remains large. As such, most Indigenous governments don't have the financial resources necessary to participate in large linear infrastructure projects and haven't implemented the fiscal powers to generate the secure revenue streams that could be used to secure financing to participate in these projects. Instead, they often must rely on provincial or federal government support to participate in these projects.

COMPARATIVE INFRASTRUCTURE CORRIDOR FISCAL AND ECONOMIC SYSTEMS

Infrastructure corridor projects can generate significant fiscal benefits for all orders of government.²² This section identifies some fiscal relationship transaction costs and a number of economic participation transaction costs of infrastructure corridors.

THE FISCAL RELATIONSHIP TRANSACTION COSTS OF INFRASTRUCTURE CORRIDORS

In its simplest form, a fiscal relationship is how a government pays for the services and infrastructure in its geographic area. More precisely, however, a fiscal relationship answers four questions:

- Which government has jurisdiction over each service or infrastructure responsibility within a geographic area?
- Which government has service and infrastructure responsibility for which citizens within that geographic area?

²¹ See the Tłıchǫ Highway Project, which requires a 25 per cent funding contribution from the government of Canada, and Wataynikaneyap Power's Northern Ontario Grid Connection Project, which required \$1.6 billion in support from the federal government as examples.

²² Please see Appendix A, which provides a few examples.

- Which government has which tax and revenue jurisdiction within that geographic area?
- What is the system of transfers to ensure that service and infrastructure service standards are maintained within a geographic area?

The answers to these questions, summarized in the table below, demonstrate that the First Nations fiscal relationship is deeply flawed, compared to the federal-provincial fiscal relationship (Tulo Centre 2014; Acemoglu et al. 2013).

Table 1: Elements of the First Nations Fiscal Relationship

Fiscal Element	First Nations Environment	Federal-Provincial Relationship
Jurisdictional clarity	First Nations jurisdictions not recognized or implemented	Constitutional clarity
Clarity of service responsibility	Confusion among all governments and little accountability for quality ²³	Fiscal relationship clarity and general accountability for quality
Tax and revenues	Little tax jurisdiction and high dependency on transfers ²⁴	Clear tax jurisdiction and incentives to increase revenues
Transfers and quality	Transfers do not fill revenue or service quality gaps ²⁵	Transfers based on revenue capacity and national service quality

These fiscal relationship gaps are further widened by infrastructure corridor projects, for three reasons. First, these corridors usually support resource development and the fiscal benefits from these projects flow disproportionately to non-Indigenous governments. Moreover, governments receive a fiscal rent from resource development because government direct revenues from resources exceed government direct costs for their development.²⁶ Second, federal and provincial governments usually use these excess revenues from resource projects to improve infrastructure and services to their

²³ Almost all First Nations governments are excluded from the system of Government Financial Statistics, so it is almost impossible to compare service expenditures or responsibilities to other governments.

²⁴ A recent study of the financial statements of 473 First Nations, First Nations Revenue Source Research – Final Report, found that 67.7 per cent of First Nations public revenues come from government transfers, compared to 18.4 per cent and 36.5 per cent for provincial and local governments, respectively. Also 16.9 per cent of First Nations government revenues come from government business enterprises, compared to less than one per cent for provincial and local governments (First Nations Financial Management Board 2020).

²⁵ The federal-provincial major transfer programs are the Canada Health Transfer (CHT), Canada Social Transfer (CST) and equalization, totalling about \$79.5 billion in 2020/21, including \$43.1 billion in CHT, \$15.5 billion in CST and \$20.9 billion in equalization (Department of Finance Canada 2017). These are formula-based transfers that are based on Statistics Canada data and verified and administered by fewer than an estimated 200 federal and provincial public servants (anecdotal). In contrast, an estimated \$8.1 billion is transferred to First Nations governments (First Nations Financial Management Board 2020). This is not formula-based because of a lack of reliable statistics, and is administered by more than an estimated 4,000 federal and Indigenous public servants (anecdotal).

²⁶ See Alberta's Heritage Savings Trust Fund, which is the province's long-term savings fund built on a portion of Alberta's non-renewable resource revenue. Current market value of the fund is almost \$18 billion, but it has transferred over \$46 billion to the provincial government's general revenue fund since its inception in 1976 to support provincial programs for Albertans, like health care, education and infrastructure. Alternatively, see Norway's oil revenue driven savings fund, which is worth over \$1 trillion, the largest sovereign wealth fund in the world. See also Table 3 on page 20 of the National Aboriginal Economic Development Board's 2015 paper, "The Business Case for a Northern Economic Infrastructure System," for an indication of the magnitude of potential fiscal impacts from a sample of proposed major resource projects in northern Canada.

citizens. This further widens the service and infrastructure quality and outcome gaps between Indigenous and non-Indigenous Canadians. Thus, not only do Indigenous governments not receive a fiscal benefit from these projects, they also can't provide the same general improvements to community services and infrastructure as other governments. Third, Indigenous governments don't have sufficient independent revenues to implement and exercise their environmental, heritage and cultural jurisdictions during infrastructure corridor and resource project review processes.

There is considerable incentive for Indigenous governments and communities to try to solve these fiscal relationship issues during infrastructure corridor and resource project consultations. These efforts have raised the transaction costs of Indigenous support for infrastructure corridors in at least four ways:

- Project consultations can't start before resources are provided to First Nations for their own project impact review processes. This is often a separate transaction cost-laden negotiated agreement between each affected Indigenous community and resource project proponent. This preliminary consultation agreement can itself increase costs because some in the community won't trust a review process paid for directly by the resource proponent.
- The source of this transaction cost is that very few Indigenous governments have established environmental review processes and even fewer have established an independent fiscal mechanism to support these processes. The result is an additional transaction cost-laden negotiation;
- Many agreements try to fill the fiscal gap through pseudo-taxation of a resource proponent. This could include, for example, specific payments based on project status, a percentage of profits or a contribution to community infrastructure or services. Some First Nations also engage in tax-sharing negotiations with provincial governments for mining, hydro and forestry projects. In both cases, negotiations of arrangements to realize an Indigenous fiscal benefit are complicated and costly to all parties.²⁷
- As in previous examples, this transaction cost arises because of limited Indigenous fiscal powers. To make this point clear, Indigenous governments are the only governments in Canada that don't receive a clear fiscal benefit from resource projects so they are forced to generate one through impact benefit and similar agreements;

²⁷

An additional looming transaction cost for provincial tax-sharing agreements is the suspect fiscal sustainability of provincial governments (see the Office of the Parliamentary Budget Officer's reports from June 2021, "Fiscal Sustainability Report 2021" and November 2020, "Fiscal Sustainability Report 2020: Update" that clearly demonstrate current fiscal policy at the subnational level (in aggregate) is not sustainable over the long term). Consider that in the last year, at least two provincial governments have cancelled or reduced sharing agreements with Indigenous governments. Cancelled were the provincial tobacco tax, gas tax — including carbon tax revenue — and the provincial portion of harmonized sales tax sharing agreements between New Brunswick and First Nations, while the forecasted gaming revenue-sharing distributions to B.C. First Nations were reduced by 75 per cent for 2021 and 2022.

- Negotiated agreements are seldom standardized because they depend on the leverage and skill of negotiators. Non-standardized agreements increase transaction costs. And the portions paid by resource projects proponents or provincial governments to Indigenous groups are seldom standardized.
- These costs arise from a lack of institutional support and two elements of transparency often missing in these agreements — the agreements are not usually public and neither are the revenues and expenditures by Indigenous governments from these arrangements. This lack of transparency reduces standardization potential, necessitates additional provisions with respect to expenditures and often leads to many subsequent negotiations starting at the beginning and facing all these transaction cost barriers again;
- The centralized Indigenous transfer-oriented fiscal relationship creates an additional co-ordination transaction cost for both Indigenous community infrastructure and infrastructure corridor projects. For any Indigenous community infrastructure project that involves local, regional or provincial governments, or a combination of these, as either service providers, service receivers or stakeholders, co-ordination not only involves the Indigenous and relevant level of government but often the federal government as well. Consider two common examples: (i) A First Nation can receive higher quality water for its members through a service agreement with a neighbouring local government. These negotiations wouldn't just be between neighbours, but would also involve the federal government; (ii) A provincial government wants to acquire lands for a road or other infrastructure corridor through First Nations land and the federal government has to be a party to the negotiations. This involvement of an additional level of government adds time and costs to Indigenous infrastructure projects and delays the associated economic, environmental and health benefits.
- The source of this transaction cost has already been articulated. There is too little fiscal and regulatory jurisdiction for local Indigenous governments and as a result too much reliance on federal transfers, federal institutions and federally created policies and oversight on local and regional infrastructure projects. It is an inefficient assignment of jurisdiction among governments at best, but, more likely, it is an ever costlier vestige of colonialism that should be ended. It is not surprising, therefore, that some local and provincial governments are encouraging Indigenous governments to take on more fiscal and regulatory jurisdictions to reduce the costs of local Indigenous government service and infrastructure agreements (Bish et al. 2014). For similar reasons, it is conceivable that some provincial governments would support a more decentralized fiscal framework with expanded Indigenous fiscal powers and jurisdictions to create agreement negotiation efficiencies for larger infrastructure corridor projects.

THE ECONOMIC PARTICIPATION TRANSACTION COSTS OF INFRASTRUCTURE CORRIDORS

Non-Indigenous Canadians can economically participate in infrastructure corridor and supported resource projects through employment, income, businesses and equity. Indigenous participation is lower in all these areas owing to higher levels of poverty, generational trauma from residential schools and less capacity and access to capital. This means that, in addition to a fiscal benefit negotiation, there is also an economic participation negotiation for Indigenous support for infrastructure corridors.

Indigenous economic participation negotiations generally can have up to five elements – environmental oversight, training, employment quotas, business/contract procurement quotas and project equity (National Indigenous Economic Development Board 2012; Keilland 2015; First Nations Energy & Mining Council 2014). Each of these is a unique negotiation and a unique result depending again on negotiation skill and leverage. Like the transaction costs associated with a poorly specified fiscal relationship, these agreements are seldom standardized or transparent, but there are also at least five additional transaction costs that arise:

- Both project proponents and Indigenous communities have a mutual interest in strong environmental assessment and management frameworks. For the former, it reduces risks and for Indigenous governments, it is an opportunity to assert jurisdictions within their ancestral lands. The implementation of Indigenous environmental review and management standards, however, involves concurrent jurisdiction with provinces. This can create a separate and costly additional government-to-government negotiation to implement these arrangements.

There are two sources for this transaction cost. Few Indigenous environmental assessment jurisdictions and procedures have been implemented and too little Indigenous institutional support and standards to implement these jurisdictions;

- The costs to support capacity development and training so that quotas for employment and business contracts can be achieved are often underestimated in these agreements. This can lead to additional agreement implementation costs and, if Indigenous expectations of economic benefits are not realized, then this can create mistrust and raise transaction costs for future negotiations.

The source of this transaction cost is poor assessments of training requirements to support Indigenous members and possibly Indigenous businesses in career and contracting opportunities;

- Indigenous participation in business start-ups is also hampered by poor access to capital because of a lack of home equity (Flanagan et al. 2010; de Soto 2003). This makes it difficult to achieve business procurement quotas in these agreements. Thus, some Indigenous communities negotiate joint ventures with other companies. Not only is this an additional negotiation to implement these agreements, but depending on the agreement, it may or may not achieve Indigenous community economic objectives, which would raise future costs.

Poor access to capital arises from poorly specified property rights in the *Indian Act* and an outdated Indigenous land registry system. To put the scale of this transaction cost in perspective, we have estimated that the credit gap for Indigenous people compared to other Canadians is \$175 billion (Tulo Centre 2021);

- Indigenous equity positions in resource or infrastructure corridor projects, or both, have two additional elements that raise transaction costs. First, many Indigenous communities will often be involved and this creates a potential governance transaction cost. Second, Indigenous equity stake purchases require access to credit, a secure public revenue stream or both, which, as discussed previously, represents additional costs to an agreement.²⁸

The destruction of First Nations governments and economies through the Indian Act and its implementation changed traditional governance methods and divided many nations where they traditionally shared a territory, language and culture. It is also possible that historically there was a different governance structure for decision-making. This can add a potentially significant additional transaction cost when Indigenous communities renew or restore these historical governance methods.²⁹ Reducing these costs often requires an internal fiscal, governance and financing agreement among participating Indigenous communities.

A COMPREHENSIVE PROPOSAL TO REDUCE INFRASTRUCTURE CORRIDOR TRANSACTION COSTS

The left-hand column of the table below summarizes the transaction costs identified in the four areas of this paper — historical context, infrastructure development systems comparison, fiscal relationship and economics. The middle column identifies the source of the transaction cost, while the institutional, legislative, fiscal and capacity proposals to reduce transaction costs are identified in the right-hand column.

²⁸ As an aside, Indigenous communities are often told they must choose between a fiscal benefit and an equity stake in these projects, despite other governments receiving both. This is particularly evident in the federal government's purchase of the Trans Mountain Expansion Project where, as owner, it earns net revenues from pipeline operations, while also collecting federal income, sales and other taxes from the construction and operation of the pipeline, as a government.

²⁹ The First Nations Major Projects Coalition has an inclusive approach that recognizes both hereditary and elected leaders as members. This inclusive approach, in addition to the institutional support the Coalition provides, can reduce transaction costs. Indigenous groups that invite the First Nations Major Projects Coalition to provide technical support can use tools for environmental impact assessment, collective governance models and equity ownership. The Nations can use these tools to incorporate traditional knowledge and governance approaches from the hereditary chiefs while using some governance and decision-making mechanisms of democratically elected leadership.

Table 2: Summary of Identified Transaction Costs and Proposals to Reduce Costs

Transaction Cost	Source	Proposal
Historical Context		
Mistrust of federal and provincial governments impeding changes necessary for comprehensive participation	Ongoing colonial legacy of denying Indigenous rights, title and jurisdiction	Indigenous-led strategy to build First Nations institutions and assert jurisdictions
Infrastructure Development Systems		
No mechanism to translate fiscal and economic benefits of corridor projects into community infrastructure projects	External control of community infrastructure development process	Proposed First Nations Infrastructure Institute
Lack of land management jurisdiction and inefficient land registry framework within ancestral lands	Land management and land title restrictions imposed by <i>Indian Act</i>	<i>First Nations Land Management Act</i> and proposed national land registry system
Limited administrative capacities, access to technical expertise and support networks	Limited assertion of jurisdiction over infrastructure development	Proposed First Nations Infrastructure Institute and Tulo Centre of Indigenous Economics
Poorly specified Indigenous fiscal relationship with inadequate fiscal powers	Limited taxation options contribute to dependency	Proposed First Nations resource charge
Fiscal Relations		
Negotiation of preliminary consultation agreements	Indigenous jurisdictions inadequately recognized or implemented	Proposed First Nations resource charge and Indigenous environmental jurisdiction
Negotiated payments from proponents (pseudo-taxation) or revenue sharing with provinces (second-hand taxes)	Limited Indigenous taxation jurisdiction	Proposed First Nations resource charge
Non-standardized agreements and non-standardized payments	Lack of institutional support and transparency	First Nations Major Projects Coalition and First Nations Financial Management Board
Transfer-oriented fiscal relationship adds an additional fiscal co-ordination transaction cost	Too little fiscal and regulatory jurisdiction for Indigenous governments	<i>First Nations Fiscal Management Act</i> , fiscal powers and institutional supports
Economic Participation		
Provincial and Indigenous governments share concurrent environmental jurisdiction	Few Indigenous environmental assessment jurisdictions implemented and lack of institutional support	<i>First Nations Land Management Act</i> and First Nations Major Projects Coalition
Costs of capacity development and training to ensure employment quotas often underestimated	Nature of private sector's relationship with Indigenous governments	Tulo Centre of Indigenous Economics and First Nations Major Projects Coalition
Lack of home equity hampers business start-ups and makes it difficult to achieve business opportunity quotas	Land tenure restrictions imposed by the <i>Indian Act</i>	Lands Advisory Board's proposed national land registry system
Equity stake agreements require collective governance and access to credit and/or secure public revenue streams	Lack of framework for collective governance and limited secure revenue stream options	Major Projects Coalition, First Nations Tax Commission, First Nations Finance Authority

The basis of the comprehensive proposal set out in the table above is an Indigenous-led strategy to build First Nations institutions and assert jurisdiction. Colonial history has generated far too much mistrust for any government-led proposal to have a high likelihood of success. Interested First Nations can access required supports from Indigenous-led institutions to assert their infrastructure, fiscal, financial, land management and environmental jurisdictions efficiently and effectively. Many of the Indigenous-led institutions that would support this comprehensive proposal already exist. They are already providing standards, sample laws, templates, services and

training to help reduce the transaction costs identified in this paper. And the work to establish the other proposed Indigenous-led institutions, to complement the existing ones, is already well underway.³⁰

The *First Nations Fiscal Management Act* has established three of the existing Indigenous-led institutions. The First Nations Tax Commission supports interested First Nations to assert their fiscal jurisdictions and implement efficient taxation systems. The First Nations Financial Management Board supports interested First Nations to assert financial administration jurisdictions and implement efficient governance and financial management systems. The First Nations Finance Authority improves access to capital and infrastructure financing options for participating First Nations.³¹ The proposed First Nations Infrastructure Institute will provide First Nations and Indigenous organizations with the tools and capacities required for sustainable infrastructure project development.

Overall, the *First Nations Fiscal Management Act* framework provides interested Indigenous governments with similar fiscal tools as local, regional and provincial governments to pay for similar infrastructure lifecycle costs. The proposed First Nations resource charge is an extension of these fiscal powers, as well as a mechanism to reduce negotiation transaction costs associated with infrastructure corridor and resource projects.

The Lands Advisory Board, through the Framework Agreement on First Nations Land Management, supports interested First Nations in asserting land management and environmental jurisdictions and the First Nations Land Management Resource Centre provides technical and professional support to implement their land codes. The First Nations Major Projects Coalition provides technical support for First Nations who are responding to proposed projects in their territories and has developed several practical tools for reducing capacity, decision-making and collective governance transaction costs.

³⁰ Appendix B contains additional information on each of the existing and in-development Indigenous institutions in this comprehensive proposal.

³¹ The *First Nations Fiscal Management Act* institutional framework provides many examples of how to successfully devolve centralized Indigenous oversight to Indigenous jurisdictions and Indigenous-led institutions. There are now over 160 First Nations in the *First Nations Land Management Act* and over 320 First Nations participating in the *First Nations Fiscal Management Act*. According to the *First Nations Gazette*, *Fiscal Management Act* First Nations have passed over 5,000 laws using this decentralized institutional system supported by Indigenous-created standards. This makes it by far the most successful Indigenous legislative framework for implementing Indigenous jurisdiction in Canadian history. The *Fiscal Management Act* also demonstrates how to address possible externalities that arise from decentralization. A complete discussion of how this is achieved by the *Fiscal Management Act* framework can be found in a Tulo Centre of Indigenous Economics working paper (Le Dressay 2018). One specific example is that to increase the First Nations Finance Authority credit rating, each borrowing First Nation must develop and implement a standardized financial management system certified by the First Nations Financial Management Board. This reduces externalities from potential financial management issues and provides greater certainty for borrowing First Nations who are jointly and separately liable within the borrowing pool, and for lenders.

Finally, the role of the Tulo Centre of Indigenous Economics is to develop administrative capacity within Indigenous governments and organizations in each of these areas – fiscal, economic, financial and land management jurisdictions.

The existing and potential roles of these Indigenous-led institutions are complementary and ideally suited to reduce infrastructure corridor transaction costs. Fortunately, the Indigenous-led institutions that comprise the strategy proposed here often work with each other. Perhaps the most prominent example is First Nations Leading the Way, which is an annual forum for those First Nations participating in the *First Nations Fiscal Management Act* and/or the *First Nations Land Management Act*. This annual conference provides these Indigenous-led institutions an opportunity to identify areas in which they may work together in a co-operative and mutually supportive manner. Perhaps mechanisms to reduce the transaction costs identified in this paper and strategies to facilitate greater Indigenous support for and participation in more infrastructure corridor projects might be a future area of collaboration identified through this venue.

A CAUTION ABOUT SHORTCUTS

We have presented a series of transaction cost challenges and proposed solutions to gain more sustainable Indigenous support for resource and infrastructure corridor projects in Canada. We recognize these transaction costs are high and can appreciate interest in finding faster, more efficient solutions. But we have also observed the attempted use of shortcuts, or ill-advised alternatives to the institutional, legislative, fiscal and capacity proposals suggested here.

We have observed two types of shortcuts. Unfortunately, both have the potential to further increase transaction costs.

The first potentially cost-adding shortcut involves facilitating access to significant capital. In these arrangements, funds may be offered for financing the purchase of an equity stake in a project or corridor in exchange for an equity share. The deal often requires multiple Indigenous community negotiations, but seldom considers community fiscal benefits and Indigenous jurisdictions. Arrangements are rarely Indigenous-led and, unfortunately, in some cases, are simply too good to be true (Castaldo 2021; George-Cosh 2021; Reynolds 2018). Not only do all these factors reduce the probability of community support, but they can also increase the costs for future projects because they generate mistrust.

The second potentially cost-adding shortcut we have observed is the government-facilitated report and program recommendation. This information gathering and report phase can be led by either a government contractor or public servant. The report presents the fiscal and economic benefit requirements mentioned in this paper, but then recommends a government program to better meet Indigenous interests (Eyford 2013). The report and government program design take considerable time and, in

our experience, it is not clear that the programs increase probabilities of community consent or reduce transaction costs for future projects.

It is our belief that a shortcut is simply a faster path to an inefficient solution with the potential for additional problems (i.e., higher future transaction costs).

CONCLUSION

High transaction costs associated with Indigenous support and participation in infrastructure corridor projects can be reduced through expanded use of Indigenous-led institutional frameworks, targeted legislative amendments and an improved fiscal relationship. Specific policy recommendations include:

- Expand capacity of *First Nations Fiscal Management Act* institutions to support more Indigenous participation;
- Enhance public administration capacity through the Tulo Centre of Indigenous Economics for project management and fiscal relationships and support other training partnerships to support Indigenous career advancement through infrastructure corridor and resource project lifecycles;
- Amend the *First Nations Fiscal Management Act* to establish a First Nations Infrastructure Institute, an Indigenous-led institution to provide optional tools and capacity supports to First Nations and Indigenous organizations to develop their infrastructure projects;
- Establish a First Nations resource charge, a regulated charge for resource projects or infrastructure corridors on ancestral lands, proposed by a number of interested First Nations, as a means to ensure the protection of lands and also provide a mechanism to improve the fiscal relationship;
- Support decision-making and collective governance capacities of interested First Nations through the use of practical tools developed by the First Nations Major Projects Coalition;
- Enable better tenure certainty through extension of land management jurisdictions of the *First Nations Land Management Act* to title and ancestral lands and the establishment of an improved land registry system as proposed by the Lands Advisory Board.

APPENDIX A: INFRASTRUCTURE PROJECT FISCAL BENEFITS EXAMPLES

Infrastructure corridor projects can generate significant fiscal benefits for all orders of government. Consider the following, to provide just a few examples:

- It is estimated that the federal and provincial governments will realize \$46.7 billion in additional taxes and royalties from construction and 20 years of operation, higher producer revenues and additional tanker traffic from the Trans Mountain Expansion Project (Trans Mountain n.d.);
- In 2015, PWC estimated that construction and development expenditures of the Wataynikaneyap Power Project would generate \$273.8 million in government revenues throughout Canada (PWC 2015);
- Construction of the Canadian portion of Enbridge's Line 3 replacement program was completed in 2019, but Enbridge previously estimated the construction phase would generate \$514.3 million in tax revenues for Canadian federal, provincial and local governments (including federal and provincial goods and service tax, federal income taxes and excise taxes) (Enbridge n.d.);
- The Yukon Gateway Resource Project involves a series of transportation infrastructure upgrades intended to support the development of major mining projects, which could generate an estimated \$3.5 billion in tax and royalty revenues for governments if they proceed (Yukon Government 2016);
- The Coastal GasLink project is under construction in northeastern B.C. and TC Energy (2020) estimates that local governments along the line will realize about \$21 million annually in property taxes;
- In 2019, the Van Horne Institute estimated that construction of the Alaska-Canada Rail Link Project could generate \$382 million to \$463 million in income tax revenues for the B.C. and Yukon governments and federal income taxes of \$1.2 billion to \$1.5 billion resulting from wages and salaries alone. The report notes this excludes corporate income taxes as well as provincial and federal sales taxes (Watts et al. 2019). Further, governments would also benefit from additional royalty and tax revenues generated by heightened mining activity supported by the rail project;
- In 2020, a study on the benefits of a gigabit broadband project in rural eastern Ontario estimated the project could increase the property tax revenue-generating capacity of municipal governments by \$20 million per year. This study also estimated that tax revenues from gross domestic product growth supported by the project could increase by \$100 million annually, five to 10 years post deployment (*Rajabium 2020*);

- In 2013, the First Nations Financial Management Board published a study, “*Opportunities for First Nations in Proposed Liquefied Natural Gas Projects in British Columbia*,” that considers the benefits of First Nations coming together in support of equity participation in prospective LNG project infrastructure and the improved certainty for reasonable and responsible resource development that would facilitate (First Nations Financial Management Board 2013). The paper describes how expected benefits to the pipeline owner are actually a relatively small portion of total benefits (only about two per cent), while those flowing to the provincial government (about 29 per cent) and the federal government (about 14 per cent) are much greater, and those realized by the exploration and production company from gas sales are the largest (about 39 per cent).

APPENDIX B: ELEMENTS OF THE PROPOSED STRATEGY

FIRST NATIONS FISCAL MANAGEMENT ACT FRAMEWORK

In 2008, the fiscal institutions of the *First Nations Fiscal Management Act* (FMA) started operations, including the First Nations Finance Authority (FNFA), the First Nations Financial Management Board (FMB) and the First Nations Tax Commission (FNTC). Since that time, the FMA has become the most successful Indigenous-led legislative initiative to implement jurisdictions and build economies in Canadian history, as 315 First Nations have opted into this legislative framework.³²

There are at least six reasons for its success. First, it is optional, Indigenous-led and respects the right of self-determination for each Indigenous government. This reduces the significant transaction cost generated by a history of mistrust with proposals from other governments. Second, it provides an efficient and effective path towards Indigenous jurisdiction through standards and institutional capacity support. Third, it provides tangible economic and fiscal benefits to interested Indigenous communities through better access to public capital, an improved investment climate and more fiscal powers. These two factors significantly reduce the costs and time for interested Indigenous governments to implement jurisdictions, build capacity and support their economic participation in opportunities. Fourth, it provides the benefits of institutional support and standards to smaller and more remote communities so they can realize their economic and fiscal objectives and better participate in resource and infrastructure projects. Fifth, it provides the institutional and regulatory framework for a more sustainable fiscal relationship for participating Indigenous governments by expanding fiscal powers and associating First Nations revenues with their expenditure and jurisdictional responsibilities. This improved fiscal relationship reduces transaction costs by providing an orderly and sustainable path towards greater Indigenous jurisdictions, such as those associated with environmental assessment and management. And, finally, sixth, it represents an Indigenous-led innovation system to advance proposals for new institutions, expand jurisdictions, promote economic growth

³² Number of First Nations scheduled to the act as of August 17, 2021.

and build capacity. It is no coincidence that the resource project and infrastructure transaction cost-reducing proposals for the First Nations Infrastructure Institute, the First Nations resource charge and the First Nations Major Projects Coalition (all described below) emerged from the FMA institutions.³³

FIRST NATIONS RESOURCE CHARGE

Resource investment has languished in recent years because, in large part, there is no way to easily incorporate First Nations interests into the decision about whether to proceed with a project. Most issues must be identified and then negotiated through a lengthy consultation process. As a result, Canada has much more opaque, costly and lengthy review processes than most of its competitor nations. Investment is often going elsewhere. If this continues, it is going to greatly exacerbate the funding challenge facing provinces. It is also going to frustrate First Nations aspirations. Both parties have an interest in improving this process. Most First Nations want to ensure that their ancestral lands are protected and many also realize that resource development is essential and could be a major source of revenues for communities, jobs and business opportunities for members. Most provinces also want to improve this process, as resource projects generate substantial revenues. This seems unduly complicated and wasteful. No other government operates like this, and for good reason.

The proposed First Nations resource charge (FNRC) could reduce many of the fiscal benefit negotiation transaction costs associated with infrastructure corridors and resource projects. It has been proposed by several First Nations relating to pipelines, mines and forestry with the support of the FNTC. It is a proposed standardized charge from resource projects or infrastructure corridors paid to First Nations for development on their ancestral lands. The charge would be regulated by the FNTC, which could also facilitate fiscal arrangement negotiations among Indigenous communities in cases of overlapping territorial relationships. It is also proposed that the FNRC be offset with a federal tax credit to maintain a competitive investment climate for resource projects. The revenues from the FNRC would be included in the FMA as part of the regulatory, standards and transparency framework.

TULO CENTRE OF INDIGENOUS ECONOMICS

In 2010, the Tulo Centre of Indigenous Economics began delivering accredited courses and certificate programs for Indigenous public administrators interested in implementing their FMA and their *First Nations Land Management Act* (FNLMA) jurisdictions in a manner that supported economic growth. One of these courses is about negotiating improved resource project agreements. The curriculum focuses on many of the transaction costs and methods to reduce them, discussed in this paper (Tulo Centre 2019). A subsequent executive course for chiefs, councillors and interested private and public sector participants was also developed.

³³

Reducing transaction costs are a fundamental part of the *First Nations Fiscal Management Act* innovation process. For a detailed description, see a Tulo Centre of Indigenous Economics working paper: Le Dressay and André, 2018, "Renewing Indigenous Governments through Creative Destruction," September.

The FMA institutions and the Tulo Centre have observed that one of the most effective ways to reduce transaction costs associated with Indigenous jurisdiction and economic projects is to build public administrative capacity through professional accreditation and designation. This helps to evolve a professional Indigenous public service that reduces the costs of professional support to communities; effective economic project communications to community and chief and council; and reduces mistrust because projects are community-led and potentially supported. Expanding the Tulo Centre approach to include Indigenous infrastructure, fiscal management and environmental assessment and management could address public sector capacity costs for resource and infrastructure projects.

FIRST NATIONS LAND MANAGEMENT ACT

In May 2018, the Lands Advisory Board (LAB) presented two proposals at *Our Lands, Our Jurisdiction, Our Institutions: First Nations Leading the Way*³⁴ in Vancouver that could potentially reduce transaction costs. First, LAB proposed the extension of the FNLMA framework beyond reserve lands to within title or treaty lands. Second, LAB proposed the development of a First Nations national land registry system (First Nations Tax Commission 2018).

Extending the FNLMA law-making framework into ancestral lands provides a potential orderly process to support Indigenous environmental and lands-related jurisdictions to support resource or corridor projects. An Indigenous land title registry could provide an efficient process to secure and maintain land tenure certainty along corridors. It is our understanding that more detailed proposals for both of these FNLMA initiatives have been developed and could be advanced in legislation in the next few years.

FIRST NATIONS INFRASTRUCTURE INSTITUTE

Many First Nations struggle to develop their much-needed community infrastructure projects in an effective and timely manner. The infrastructure development system, through which Indigenous Service Canada provides First Nations with assistance, simply has not produced outcomes comparable with other governments in Canada. The lack of any standardization adds transaction costs throughout the process and is a major contributing factor in these very poor outcomes.

The First Nations Infrastructure Institute (FNII) provides a model for reducing these transaction costs.³⁵ FNII is seeking to establish standards based on national and international best practices and current industry procedures throughout all phases of the infrastructure project lifecycle and provide interested First Nations with the appropriate level of capacity support services to help achieve these standards, thereby

³⁴ The inaugural national meeting of *First Nations Fiscal Management Act and First Nations Land Management Act* participating First Nations.

³⁵ The First Nations Infrastructure Institute is a First Nations-led initiative that will support improved infrastructure outcomes by providing interested First Nations with the skills and processes necessary to efficiently and effectively plan, procure, own and manage their infrastructure assets.

reducing these transaction costs. Standards are the most effective mechanism to reduce the time and cost of implementing best practices. In the First Nations context, the standards-based approach has been used effectively by the First Nations Financial Management Board and the First Nations Tax Commission.

FNII is in a development phase, but is already working with a few First Nations and Indigenous organizations in B.C., Ontario and Atlantic Canada. FNII has already developed several tools to support interested First Nations, which are available on its website,³⁶ and will continue to develop new innovations to address gaps in infrastructure planning, design, procurement, financing, construction, operation, maintenance and asset management.³⁷ FNII will work to create tools, templates, models and samples, and provide training on their use, in order to lower switching costs and maximize efficiencies when implementing these new innovations.

In addition, FNII will work with First Nations and Canada to bring clarity to the ownership of assets and facilities at each stage and support First Nations control and decision-making through the infrastructure development process, ensuring projects achieve the objectives of the First Nations owners.

Once established, FNII will work with the First Nations Financial Management Board, the First Nations Finance Authority and the First Nations Tax Commission to bring a complete suite of interrelated tools to benefit participating First Nations. FNII intends to use a standards and certification approach to effectively implement a best-practice jurisdiction-based system described above. FNII will develop tools, templates, models and samples to assist First Nations to implement jurisdictions and develop projects to achieve established standards.

FIRST NATIONS MAJOR PROJECTS COALITION

The First Nations Major Projects Coalition (FNMPC) represents a model for reducing capacity, decision-making and collective governance transaction costs.

FNMPC provides technical support for First Nations that are responding to proposed projects in their territories and has developed several practical tools for First Nations to use. This includes tools for participation in an environmental assessment process. In October 2020, the FNMPC's environmental stewardship technical team published a valuable guide intended to enhance the capacity of Indigenous governments to effectively engage in the new federal impact assessment process for Nations that may be facing consultation requests for a major resource project proposed for their territory (First Nations Major Projects Coalition 2020). In February 2019, the FNMPC produced a series of memos describing project development and explaining financing

³⁶ The First Nations Infrastructure Institute has developed a project charter template, a business case template, an introduction to procurement models and a cost sharing explainer tool. These are available on its website.

³⁷ In 2021, the First Nations Infrastructure Institute hosted a five-part webinar series on getting projects shovel-ready. A number of these proposed innovations were discussed throughout the webinar series, which was recorded and is available on the First Nation Infrastructure Institute's website.

requirements, illustrating the processes, conditions, timelines and decisions likely necessary for a group of First Nations with a common interest in financing the purchase of an equity interest stake in a project (First Nations Major Projects Coalition 2019a). In April 2019, the FNMPC released an aspirational document identifying members' requirements for assessment of environmental effects of major projects, including nine guiding principles and more than 100 criteria and sub-criteria providing expectations of what it will take to adhere to the spirit and intent of each principle (First Nations Major Projects Coalition 2019b). These tools support capacity building for First Nations to better participate in major resource project development processes.

To date, more than 70 First Nations have formalized their participation in the Coalition, which includes groups from B.C., Alberta, Saskatchewan, Manitoba, Ontario and the Northwest Territories. In addition, the Coalition is providing capacity support services to groups of First Nations that are in active discussions for a hydroelectric project, a geothermal electricity project, a natural gas pipeline and two transmission line projects (Calla 2021).

FIRST NATIONS FINANCIAL MANAGEMENT BOARD

The First Nations Financial Management Board (FMB) offers interested First Nations an effective model to fill financial management gaps and reduce related transaction costs. The FMB assists in the development of capacity to meet their financial management requirements and in their dealings with other governments respecting financial management and accountability. It provides review and audit services respecting First Nations financial management, and financial monitoring services respecting First Nations financial management and financial performance. It develops capacity within First Nations to implement sound financial management practices with tools, templates and training webinars.

The FMB uses a standards-based approach to ensure transparent and efficient approval and certification processes. The FMB has also established standards for local revenue financial reporting. The FMB's standards are based on internationally recognized good governance and finance practices. It has approved 210 financial administration laws and issued 171 financial performance certifications and 38 financial management system certifications.³⁸

³⁸

Totals current as of March 31, 2020, based on information in the First Nations Financial Management Board's 2019/20 Annual Report, available on its website. A financial administration law establishes the rules and processes that form a set of finance and administrative governance best practices, which is the framework for establishing a financial management system. A financial performance certificate can be issued based on a point-in-time assessment of financial performance. A First Nations Financial Management Board certificate requires the development of policies and procedures that bring the financial administration law to life and demonstrate the design and implementation of a sound financial management system.

The FMB also offers interested First Nations four sample policies (governance, information management, finance and human resources policy and procedures) to assist in the development and implementation of the rules and guidelines required by a First Nation to achieve its financial management objectives and required by an approved financial administration law.

FIRST NATIONS TAX COMMISSION

Indigenous governments suffer from a fiscal powers gap, relative to other governments in Canada. Impact benefit agreements with project proponents often attempt to fill this fiscal gap through pseudo-taxation, but negotiating these arrangements can be complicated, time-consuming and costly for both Indigenous governments and industry. Revenue-sharing agreements with provinces are another less-than-ideal attempt to fill the fiscal powers gap. But these are simply second-hand taxes and, as discretionary expenditures, provinces can cancel or reduce revenue-sharing arrangements at any time. Either approach involves a great deal of uncertainty for Indigenous governments, provinces and project proponents, relative to filling the fiscal powers gap with formal, transparent and standards-based tax systems.

The First Nations Tax Commission (FNTC) offers interested First Nations an effective model to fill the fiscal powers gap and reduce related transaction costs. The FNTC regulates, supports and advances First Nations taxation under the *First Nations Fiscal Management Act* (FMA) and section 83 of the *Indian Act*. It reviews and approves taxation laws and helps to reconcile First Nations government and taxpayer interests. The FNTC uses a standards-based approach to ensure transparent and efficient approval of taxation and expenditure laws. It supports the development of capacity within First Nations administrations to effectively implement their tax systems, with tools like templates, models and sample laws, as well as university-accredited training.

The FNTC has established 19 standards to support First Nations law-making and has developed over 30 sample laws, which are available for each region, in order to ensure harmonization with provincial approaches, where appropriate.³⁹ The FNTC offers tax administrators software to support property tax-collecting First Nations through the annual tax cycle (assessments, budgeting, rate approval, notices, collection and enforcement) and has also established and maintains the *First Nations Gazette* as a public notification service for First Nations laws, similar to the *Canada Gazette*. The FNTC is continuously working to expand the fiscal powers available to interested First Nations (First Nations Fiscal Institutions 2021; First Nations Tax Commission 2019).

The Commission has reviewed and approved over 1,500 First Nations taxation laws, supported almost 200 First Nations to implement fiscal powers and collected an estimated \$1 billion in tax revenues (First Nations Tax Commission 2020). This is the most successful mechanism available for First Nations to close the fiscal powers gap and reduce related transaction costs.

³⁹

See the *First Nations Fiscal Management Act* toolkit available on the First Nation Tax Commission's website.

FIRST NATIONS FINANCE AUTHORITY

First Nations face higher costs to access credit than other governments. But the First Nations Finance Authority (FNFA) provides a successful model to improve access to credit and reduce related transaction costs.

The FNFA is modelled after other successful pooled government borrowing authorities, like the Municipal Finance Authority in B.C. The FNFA issues debentures through its banking syndicate to be purchased by capital market investors. It then re-lends the proceeds to First Nations, secured by their own existing revenue streams. The system operates on a sinking fund basis, uses a debt reserve fund and is backed by a credit enhancement fund established through agreement with Crown-Indigenous Relations and Northern Affairs Canada (First Nations Finance Authority 2021a). The FNFA has two investment-grade credit ratings, including Aa3 (Moody's 2021) and A+ (S&P 2020). The FNFA, which includes 121 member First Nations, has issued eight debentures and provided over \$1.3 billion in financing to its 74 borrowing-member First Nations in nine provinces and one territory (First Nations Finance Authority 2021b).

In addition to lending to individual First Nations for their community projects, including infrastructure assets and economic development projects, the FNFA began lending to groups of First Nations for commercial purposes. In January 2021, seven Mi'kmaq First Nations borrowed \$250 million from the FNFA to purchase offshore fishing licences. This also enabled a deal in which these First Nations were able to purchase a 50 per cent ownership stake in Clearwater Seafoods Inc.⁴⁰

The FNFA's financing regime offers interested First Nations a proven method to reduce credit access transaction costs.

INDIGENOUS ENVIRONMENTAL REVIEW AND MANAGEMENT FRAMEWORKS

The implementation of Indigenous-led environmental assessment processes involves concurrent jurisdiction with provinces, which can create a separate and costly additional government-to-government negotiation to implement these arrangements. But a process developed by the Squamish Nation provides a model for the reduction of this transaction cost.

In the past, the Squamish Nation had been frustrated during its participation in Crown-led environmental assessment processes. In particular, the Squamish Nation felt that existing environmental assessment processes did not provide the opportunity to obtain its consent. When the Woodfibre LNG project was first proposed within Squamish territory, the Nation developed a new process in which it was an informed decision-maker, rather than simply a consulted party participating in another government's assessment process.

⁴⁰

Please watch the Public Policy Forum's video *"Rebuilding the Local Economy: Inside the Mi'kmaq-Clearwater Deal"* with Chief Terry Paul, available on PPF's YouTube channel for additional discussion.

The Squamish Nation Process, as it is called, is an independent environmental review and decision-making process that is parallel to, but separate from, the provincial government's environmental assessment process. To achieve consent of the Squamish Nation under the process, two key objectives must be met, including an informed decision by the Squamish Nation and a shared decision-making process with the Crown. The Squamish Nation Process ultimately proved successful and two environmental assessment certificates were issued by the Squamish Nation (one for the pipeline and one for the export facility), subject to 25 conditions (PGL Environmental Consultants 2021). In 2014, Woodfibre LNG agreed with all 13 of the conditions related to the export facility, including changing its cooling technology, and the Squamish Nation Council voted to approve an environmental assessment agreement for the proposed facility. The agreement is legally binding and includes legal remedies to ensure compliance.

The Squamish Nation Process also creates an opportunity for the Nation and the Crown to discuss their respective decisions and conditions placed on a project. The Squamish Nation's decision is discussed with the Crown prior to its decision on a project. The objective is to reconcile any differences in opinion on the approval of the project and to make a shared decision on it (Bruce and Hume 2015).

REFERENCES

- Acemoglu, Daron, and James A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business.
- Alberta Government. 2021. "Alberta Heritage Savings Trust Fund Annual Report 2020-21." <https://open.alberta.ca/publications/0702-9721>.
- Alcantara, Christopher. 2013. *Negotiating the Deal: Comprehensive Land Claims Agreements in Canada*. Toronto: University of Toronto Press.
- Anderson, Terry. 2016. *Unlocking the Wealth of Indian Nations*. Lanham, MD: Lexington Books.
- Assembly of First Nations. 2016. "National Housing and Infrastructure Forum: Final Report." <https://www.afn.ca/wp-content/uploads/2015/06/FINAL-National-Housing-and-Infrastructure-Forum-Final-Report.pdf>.
- BC FN Gaming Revenue Sharing LP. 2021. "Re: BC Gaming Revenue Sharing Distribution Forecasts for Years 3 to 5." Letter to partners from Greg Barry. March 15.
- Bakx, Kyle, and Genevieve Normand. 2021. "First Nations Proposing New Energy Corridor in Western Canada." CBC. April 12. <https://www.cbc.ca/news/business/bakx-corridor-treaty-8-1.5981922>.
- Bergeron, Étienne, Sarah MacPhee, Carleigh Malanik-Busby, Caroline Nicol, Tim Scholz, and Diarra Sourang. 2020. "Fiscal Sustainability Report 2020: Update." Office of the Parliamentary Budget Officer. November 6. https://www.pbo-dpb.gc.ca/web/default/files/Documents/Reports/RP-2021-033-S/RP-2021-033-S_en.pdf.
- Bish, Robert, and Fiscal Realities Economists. 2014. "First Nation Property Tax, Services and Economic Development in British Columbia." Office of the Parliamentary Budget Officer. Union of British Columbia Municipalities and the First Nations Tax Commission. November 6. <https://www.uvic.ca/hsd/publicadmin/assets/docs/BBish/FirstNationTaxationServicesEcDevRevised.pdf>.
- Bishop, Grant, and Grant Sprague. 2019. "A Crisis of Our Own Making: Prospects for Major Natural Resource Project in Canada." C.D. Howe Institute Commentary, no. 534. February.
- British Columbia Legislative Assembly. 1876. *Papers Connected with the Indian Land Question 1850-1875*. Victoria, B.C.: Government Printer.

- Bruce, Aaron, and Emma Hume. 2015. "The Squamish Nation Assessment Process: Getting to Consent." Ratcliff & Company LLP. <https://www.ratcliff.com/wp-content/uploads/2020/10/The-Squamish-Nation-Assessment-Process-Getting-To-Consent-Ratcliff.pdf>.
- Calla, Jason. 2021. "Improving Access to Capital for Indigenous Groups to Purchase Equity Stakes in Major Resource Project: Reviewing Existing Approaches to Inform a National Benefit-Sharing Framework." First Nations Major Projects Coalition. <https://fnmpc.ca/resources/>.
- Castaldo, Joe, Greg McArthur, Wendy Stueck, and Tim Kiladze. 2021. "Bridging Finance's Missing Man: Who is Sean McCoshen, the Dealmaker Tied up in the Private Lender's Fall?" *Globe and Mail*. June 19. <https://www.theglobeandmail.com/business/article-bridging-finances-missing-man-who-is-sean-mccoshen-the-dealmaker-tied/>.
- Coase, R. H. 1937. "The Nature of the Firm." *Economica*. Blackwell Publishing.
- Coleman, James W., Ken Coates, Steven Saddleback, Malcolm Lavoie, and Dwight Newman. 2021. "Getting to Yes on Linear Infrastructure Projects." Macdonald-Laurier Institute. https://macdonaldlaurier.ca/files/pdf/20201210_Linear_Infrastructure_Projects_COLLECTION_FWeb.pdf.
- Crown-Indigenous Relations and Northern Affairs Canada. 2015. "Summative Evaluation of the Education Facilities and Other Community Infrastructure Sub Programs (Capital Facilities and Maintenance Program)." June. Modified January 17, 2017. Accessed August 4, 2021. <https://www.rcaanc-cirnac.gc.ca/eng/1467300208069/1537884442650>.
- De Soto, Hernando. 2003. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.
- Department of Finance Canada. 2017. "Major Federal Transfers." February 2. Accessed August 13, 2021. <https://www.canada.ca/en/department-finance/programs/federal-transfers/major-federal-transfers.html>.
- Enbridge. n.d. "Line 3 Replacement Program (Canada) — Economic Benefits." Accessed August 10, 2021. <https://www.enbridge.com/projects-and-infrastructure/projects/line-3-replacement-program-canada/economic-benefits>.
- Eyford, Douglas R. 2013. "Forging Partnerships Building Relationships — Aboriginal Canadians and Energy Development; Report to the Prime Minister." Natural Resources Canada. <https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/www/pdf/publications/ForgPart-Online-e.pdf>.

- First Nations Energy & Mining Council. 2014. "Resource Agreements: Protecting the Land, Sharing the Wealth." January 20. <http://fnemc.ca/wp-content/uploads/2015/07/Resource-Agreements-workshop.pdf>.
- First Nations Finance Authority. 2021a. "FNFA Borrowing Process." <https://www.fnfa.ca/en/for-first-nations/financing/fnfa-borrowing-process/>.
- . 2021b. "Stronger Together: 2020/21 Annual Report." <https://www.fnfa.ca/wp-content/uploads/2021/07/FNFA-Annual-report-2020-21-English-Web.pdf>.
- . 2021c. "For Investors and Bondholders." Accessed August 13, 2021. <https://www.fnfa.ca/en/for-investors/>.
- First Nations Financial Management Board. 2013. "Opportunities for First Nations in Proposed Liquefied Natural Gas Projects in British Columbia."
- . 2020a. "2019/2020 Annual Report." March 31. https://fnfmb.com/sites/default/files/2020-10/fmb_2019-2020_annual_report_final_en_low-res.pdf.
- . 2020b. "First Nations Revenue Source Research — Final Report." October 16. https://fnfmb.com/sites/default/files/2020-11/2020-10-16_fmb_first_nations_revenue_research_report_en.pdf.
- First Nations Fiscal Institutions and the Lands Advisory Board. 2021. "First Nations Economic Resilience: First Nations Leading the Way 3 — National Meeting Summary 2021." <https://fnleadingtheway.com/2021-en/meeting-summary-2021/>.
- First Nations Infrastructure Institute. 2021a. "Publications and Resources." Accessed August 17, 2021. <http://fnii.ca/publications-resources/>.
- . 2021b. "Shovel Ready Webinars." Accessed August 17, 2021. <http://fnii.ca/shovel-ready-webinars/>.
- First Nations Major Projects Coalition. 2019a. "Major Project Assessment Standard: Member-Developed Principles, Criteria, and Expectations to Guide Major Project Environmental Assessments." <https://fnmpc.ca/resources/>.
- . 2019b. "Ownership Model Handbook — First Nations Project Ownership and Access to Capital for Investment in Major Infrastructure Projects." <https://fnmpc.ca/resources/>.
- . 2020. "Guide to Effective Indigenous Involvement in Federal Impact Assessment." <https://fnmpc.ca/resources/>.
- First Nations Tax Commission. 2018. "First Nations Leading the Way — National Meeting Summary." Accessed August 17, 2021. <https://fntc.ca/meetingsummary2018/>.

- . 2019. “Corporate Plan 2019/2020.” https://fntc.ca/wp-content/uploads/CPs/fntc_corporate_plan_2019-02-13.pdf.
- . 2020. “Backgrounder: First Nations Taxation, the First Nations Tax Commission, and the First Nations Fiscal Management Act.” https://www2.gov.bc.ca/assets/gov/employment-business-and-economic-development/economic-development/learn-from-experts/webinars/2020-09-fnta/handout-fma_background-20200915.pdf.
- . 2021. “FMA Toolkit: Overview.” <https://fntc.ca/fma-toolkit-overview-and-opt-in/>.
- Flanagan, Tom, Christopher Alcantera, and André Le Dressay. 2010. *Beyond the Indian Act: Restoring Aboriginal Property Rights*. Montreal: McGill-Queen’s University Press.
- George-Cosh, David. 2021. “‘Give Me a Break’: Bridging Finance, Sean McCoshen Sued Over Alberta-Alaska Rail Plan.” BNN Bloomberg. July 5. <https://www.bnnbloomberg.ca/give-me-a-break-bridging-finance-sean-mccoshen-sued-over-alberta-alaska-rail-plan-1.1625569>.
- Harris, Cole. 2003. *Making Native Space: Colonialism, Resistance, and Reserves in British Columbia*. Vancouver: University of British Columbia Press.
- Indigenous Services Canada. 2015. “Capital Facilities and Maintenance Program.” March 26. Accessed August 4, 2021. <https://www.sac-isc.gc.ca/eng/1100100016395/1533641696528>.
- . 2021. “Map of Long-term Drinking Water Advisories on Public Systems on Reserves.” August 11. Accessed August 13, 2021. <https://www.sac-isc.gc.ca/eng/1620925418298/1620925434679>.
- Justice Laws Website. 2021. “First Nations Fiscal Management Act (S.C. 2005, c.O).” August 12. Accessed August 17, 2021. Available at <https://laws-lois.justice.gc.ca/eng/acts/F-11.67/FullText.html>.
- Keilland, Norah. 2015. “Support Aboriginal Participation in Resource Development: The Role of Impact and Benefit Agreements.” Library of Parliament. <https://lop.parl.ca/staticfiles/PublicWebsite/Home/ResearchPublications/InBriefs/PDF/2015-29-e.pdf>.
- Le Dressay, Andre. 2018. “Renewing Indigenous Economies through Creative Destruction.” Working paper. Tulo Centre of Indigenous Economics.
- MacPhee, Sarah, Étienne Bergeron, Carleigh Busby, and Caroline Nicol. 2021. “Fiscal Sustainability Report 2021.” Office of the Parliamentary Budget Officer. June 30. <https://distribution-a617274656661637473.pbo-dpb.ca/93a1e3bc1b4432c0b2eac192241b866d36c048b5efc1aa8224e15364551f0c8e>.

- Narcisse, Cathrena. 2016. "Indigenous Perspectives on the Outstanding Land Issue in British Columbia: 'We Deny Their Right to It.'" Unpublished PhD thesis, University of British Columbia.
- National Indigenous Economic Development Board. 2012. "Increasing Aboriginal Participation in Major Resource Projects." <http://www.naedb-cndea.com/reports/increasing-aboriginal-participation-in-major-resource-projects.pdf>.
- . 2015. "The Business Case for a Northern Economic Infrastructure System." Prepared by Fiscal Realities Economists. June. <http://www.naedb-cndea.com/reports/business-case-northern-economic-infrastructure-system.PDF>.
- . 2019. "The Indigenous Economic Progress Report 2019." <http://www.naedb-cndea.com/wp-content/uploads/2019/06/NIEDB-2019-Indigenous-Economic-Progress-Report.pdf>.
- Office of the Auditor General of Canada. 2021. "Access to Safe Drinking Water in First Nations Communities." https://www.oag-bvg.gc.ca/internet/English/parl_oag_202102_03_e_43749.html.
- PGL Environmental Consultants. 2021. "First Nation Independent Environmental Assessment." <https://www.pgggroup.com/case-studies/first-nation-independent-environmental-assessment/>.
- Poitras, Jacques. 2021. "Higgs Government Pulls Out of Gas-tax Sharing with First Nations." CBC. April 13. Accessed August 13, 2021. <https://www.cbc.ca/news/canada/new-brunswick/department-of-finance-blaine-higgs-1.5985206>.
- Public Policy Forum. 2021. "Rebuilding the Local Economy: Inside the Mi'kmaq-Clearwater Deal." <https://ppforum.ca/event/atlantic-panel-on-Indigenous-ownership-frank-mckenna-award-for-leadership-in-public-policy/>.
- PWC. 2015. "Wataynikaneyap Power Project — Socioeconomic Impact Analysis of Building Grid Connection to Ontario's Remote Communities." <https://drive.google.com/uc?export=download&id=0B5WmSDID4Jywc2RpWVBhLUtPSE0>.
- Rajabium, Reza. 2020. "Economic Benefits of Investing in Basic vs. Gigabit Broadband Infrastructure in Rural Eastern Ontario — Policy Brief." eFilters Inc. Prepared for Eastern Ontario Warden's Caucus (EOWC) & Eastern Ontario Regional Network (EORN).
- Reynolds, Jerry. 2010. "Utes File Lawsuit Against John Jurrius." Indian Country Today. January 10. Updated September 12, 2018. <https://indiancountrytoday.com/archive/utes-file-lawsuit-against-john-jurrius>.

- Rheault, D'Arcy. 2011. "Solving the 'Indian Problem': Assimilation Laws, Practices & Indian Residential Schools." Accessed July 20, 2021. <https://www.omfrc.org/wp-content/uploads/2016/06/specialedition8.pdf>.
- Richard, Greg, Jason Calla, and André Le Dressay. 2009. "The High Costs of Doing Business on First Nation Lands in Canada." Accessed December 11, 2021. http://www.fiscalrealities.com/uploads/1/0/7/1/10716604/the_high_costs_of_doing_business_on_first_nation_lands_in_canada.pdf.
- Senate Standing Committee on Aboriginal Peoples. 2015. "On-Reserve Housing and Infrastructure: Recommendations for Change." <https://sencanada.ca/content/sen/Committee/412/appa/rep/rep12jun15-e.pdf>.
- TC Energy. 2020. "Project Overview." Coastal GasLink. <https://www.coastalgaslink.com/siteassets/pdfs/about/resources/cgl-project-overview-20201113.pdf>.
- Tennant, Paul. 1990. *Aboriginal Peoples and Politics: The Indian Land Question in British Columbia, 1849-1989*. Vancouver: University of British Columbia Press.
- Trans Mountain. n.d. "Project Benefits." Accessed August 10, 2021. <https://www.transmountain.com/benefits>.
- Tulo Centre of Indigenous Economics. 2014. "Building a Competitive First Nation Investment Climate." Chapter 5, "Fiscal Framework," 143-176. December. <https://www.tulo.ca/textbook>.
- . 2019. "Course Manual: Applied Economics 2660 — Resource Development on First Nation Lands."
- . 2021. "An Outline for a Comprehensive FMA Indigenous Recovery Strategy." Accessed August 13, 2021. <https://www.tulo.ca/news/closingsystemicgaps>.
- Urban Systems Ltd. 2017. "Comparative Analysis of Infrastructure Development Processes — First Nations and Local Governments." Prepared for the First Nations Tax Commission. March.
- Watts, Teresa, Peter Wallis Consulting Ltd., and Paul Metz. 2019. "Alaska-Canada Rail Link Economic Benefits." Van Horne Institute. <http://hdl.handle.net/11122/10567>.
- Yukon Government. 2016. "Yukon Resource Gateway Project: Summary — Application for National Infrastructure Component Funding." January. <https://yukon.ca/sites/yukon.ca/files/emr/emr-yukon-resource-gateway-project-application.pdf>.

About the Authors

André Le Dressay is the Director of Fiscal Realities Economists, the Director of the Tulo Centre of Indigenous Economics and a professor in the School of Business and Economics at Thompson Rivers University. PhD in Economics, Simon Fraser University, Master of Applied Economics, University of Victoria and Honors degree in Math and Economics, University of Regina.

Jason Calla is a member of the Squamish Nation and the principle of Temixw Planning and the First Nation Infrastructure Institute. M.Sc. Urban and Regional Planning, London School of Economics, Commerce Degree Urban Land Economics, UBC

Jason Reeves is an economist with Fiscal Realities Economists, the Tulo Centre of Indigenous Economics and the First Nation Infrastructure Institute. Bachelor of Business Administration (Hons) Thompson Rivers University.

We have worked together over the last 20 years on many projects related to First Nation led legislation, First Nation led institutional design and implementation, First Nation economic research, First Nation community and corridor infrastructure projects and the development and delivery of original curriculum at the Tulo Centre of Indigenous Economics.

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