PDAC

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DEVELOPERS
ASSOCIATION
OF CANADA

Economic Impacts of Exploration Projects on Indigenous Communities

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Disclaimer

The information contained herein may be incomplete or inaccurate owing to a lack of available information at the time of the report, inaccuracies contained in published materials referenced in the study, or inaccurate information provided by study participants or survey respondents.

The front cover image features Peter Tapatai, Principal at Land & People Planning and founder and President of Peter's Expediting Limited.
Photo courtesy of Land & People Planning.

1 Introduction

The Prospectors and Developers Association of Canada (PDAC) has prepared this report with the objective of fostering a deeper understanding among Indigenous communities and the general public of the exploration phase of the mineral development sequence. This phase is not well understood outside of the industry. The study also aims to help Indigenous communities prepare to take advantage of the economic opportunities that can arise from mineral exploration projects. Another important goal of the study is to educate exploration companies and other stakeholders about steps they can take to help ensure that Indigenous communities and Indigenous businesses can participate fruitfully in exploration projects.

The study relies on an array of published studies as well as outreach to Indigenous communities and representatives of the exploration and mining industry, including businesses involved in the service and supply of exploration projects. The methodology is discussed in **Section 2**.

THE MINERAL EXPLORATION SEQUENCE – ACTIVITIES, TIMELINES, AND SPENDING

Section 3 identifies the principal activities that exploration companies and their suppliers and contractors undertake to search for, discover, and evaluate a mineral deposit. Compared to the capital and labour-intensive activities required to build and operate a mine, these activities are quite limited and account for only a small portion of the annual spending undertaken by the mineral development sector as a whole. Companies can help Indigenous communities prepare to take advantage of the relatively limited opportunities in exploration by engaging with communities early and regularly in order to help them understand the nature and timelines associated with mineral exploration.

ECONOMIC OPPORTUNITIES

Section 4 identifies key economic opportunities that Indigenous communities can pursue across the exploration sequence, and, based on an online survey and interviews conducted for this study, identifies the services that Indigenous-owned businesses are currently providing to advance exploration projects.

Research shows, that, across the country, Indigenous-owned businesses, whether privately or community-owned, currently provide sophisticated region and nation-wide supply chain functions to support the sector, including logistics and expediting, sea-lift, aircraft and helicopter transportation services. In some cases, they also provide core exploration services to the sector through community-owned exploration companies. The amount of prior community experience with exploration and mining companies and the level of mineral development activity within a traditional territory is a crucial factor in a community-owned business' ability to participate in projects. Communities lacking that experience may find that they are only able to participate in limited ways.

CHALLENGES, RISKS, AND STRATEGIES

Section 5 addresses the challenges and risks facing Indigenous communities and businesses.

The main risk that exploration companies face is that their projects will be delayed or cancelled, either because results from exploration work are poor, or owing to economic conditions affecting the price of the underlying commodity, to name just two. Indigenous businesses can partially mitigate against this risk by developing governance and managerial capacity to plan effectively, manage debt and assets, and seek out the right strategic partnerships. Efforts to establish strong models of governance will also influence their ability to obtain financing.

Other challenges facing communities with aspirations to participate in exploration projects include:

- Lack of awareness of exploration projects and the mineral development industry in general
- Lack of community assets and skills required to participate in projects
- Lack of appropriate skills within the community
- Lack of capital and financing to meet investment objectives

Section 6 identifies several strategies that communities, with the help of companies and government, can utilize to overcome these challenges, and focuses on building strong governance models within Indigenous economic development corporations, seeking out appropriate strategic partnerships, and policy development around land use priorities and community readiness.

VARIATIONS ACROSS JURISDICTIONS

Section 7 of the report accounts for variations in Indigenous community experiences with mineral exploration projects across the country, and considers why some communities may be better positioned to capitalize on opportunities associated with the industry than others.

RECOMMENDATIONS

Finally, the study concludes with a list of recommendations for governments, companies, and communities, to ensure greater participation of Indigenous communities in current and future exploration projects.

2 Methodology

2.1 Overview of Desktop Research

Much of this report is based on a systematic review of the following published materials:

- Economic development planning documents, such as community mining readiness strategies, documenting community efforts to prepare for participation in exploration and mining projects
- Newspaper and journal articles documenting specific cases of Indigenous communities and economic development organizations participating in various aspects of mineral exploration and downstream economic opportunities
- Published guides and tool kits, produced by industry and Indigenous organizations, to help build awareness of the mineral development sector and prepare communities and project-stakeholders to participate in exploration and mining projects
- Academic literature that assesses the adequacy of current Indigenous community-industry relations practices in achieving community economic development goals

2.2 Outreach and Consultation

Engagement with Indigenous communities, industry, and project stakeholders occurred in two concurrent phases, with research focused on interviews with Indigenous community economic development corporations, exploration and mining companies, and stakeholders in mineral exploration and an online survey of selected PDAC members.

2.2.1 Interview Program

The research team conducted approximately 15 hours of interviews with members of the mineral exploration community, including First Nation economic development corporations, exploration companies, mining companies, and exploration service and supply firms.

Interviews focused on the following key areas of discussion:

- Organizational background and relationship to the mineral development sector
- For exploration companies, their experiences working with Indigenous communities and businesses to advance their projects
- For Indigenous communities and businesses, their experiences working with the exploration industry
- Factors that enable or hinder Indigenous community and business efforts to participate in exploration projects

- Strategies that Indigenous communities and businesses and exploration companies can employ to ensure Indigenous communities benefit from projects

Representatives of the following organizations participated in the interview program:

Newmont Goldcorp
Minerail de fer Québec
Na-cho Nyak Dun Development Corporation
Golden Predator
New Gold
Nuna Group of Companies
Det'on Cho Corporation
Gestion ADC
Cree Mineral Exploration Board
Temagami First Nation
Niobay Metals
Windigo Catering

Interview summaries are included in Appendix B below.

2.2.2 PDAC Member Survey

In March 2020, an online survey was emailed to segments of the PDAC membership that includes junior mining companies and members who self-identify as Indigenous. The survey was designed to create a portrait of the types of business opportunities that are available across the mineral exploration sequence and the level at which Indigenous-owned businesses are taking advantage of those opportunities. As well as the degree to which exploration companies and exploration service and supply firms are facilitating the establishment of Indigenous businesses and joint ventures to provide goods and services to projects.

The study team received 50 responses from a variety of organizations from within PDAC's membership operating in all provincial and territorial jurisdictions, with the exception of Prince Edward Island, including:

Exploration and mining companies (22 respondents)
Exploration mining service and supply companies (14)
Indigenous communities and governments (6)
Legal and professional service providers (3)
Financial institutions (2)
NGOs (2)
Indigenous economic development corporations (1)

2.3 Panel Review

A panel of advisors was assembled to bring regional and subject matter expertise to project design, research, and report preparation. Together, the panelists bring experience leading Indigenous community economic development initiatives,

leading mineral exploration projects, conducting mineral sector advocacy, providing logistics and supply chain support to mine operations and infrastructure development initiatives, and capacity building in northern and remote communities.

2.3.1 Panelists

Normand Champigny
Normand Champigny is a past member of PDAC's Executive Committee. With 35 years of experience in the mining sector, Normand has led projects for several international firms. He is a member of the Canadian Advisory Board for Collins Barrow Infrastructure Advisory (CBTIA) and brings a unique blend of domestic and international knowledge and experience to the CBTIA team across both public and private sectors.

Normand's career has led him to senior executive-level appointments in executive management, corporate advisory, and resource company and industry advocacy capacities. He is currently President and Chief Executive Officer of Quebec Precious Metals Corporation.

Allison Deer
Allison Deer is a Mohawk from the community of Kahnawake and is a member of the Wolf Clan. She has over 35 years' experience in Community and Economic Development at the local, regional, and national levels of development and recently obtained an MBA in Community Economic Development from Cape Breton University, where she focused on the diverse challenges and opportunities facing Indigenous communities across Canada.

Allison is currently Senior Project Advisor for Bimaadzwin, Inc. and is a former National Manager of the Canadian Executive Services Organization (CESO) Indigenous Services in Montreal.

Daniel Kane
Daniel Kane has spent over 40 years working in various community relations roles as a supplier to the resource sector. Over the course of his career, Daniel has lived in many communities across Saskatchewan, Alberta, Manitoba, Nunavut, and the Northwest Territories. Daniel was Community Relations Advisor for Nuna Logistics until his retirement in 2020.

Throughout his career, Daniel established strong relationships in Western Canada, Ontario, and across the North, where he worked with Indigenous businesses and communities to support their efforts to meaningfully participate in the activities of the resource sector.

Daniel's work has been recognized by the NWT and Nunavut Chamber of Mines and the Kitikmeot Trade Show Association. He is a Nunavut Mining Symposium Hall of Fame inductee.

Denise Lockett
Denise Lockett provides expertise in communication, consultation and corporate social responsibility to exploration companies. She has worked with a number of

communities and mining projects across northern Canada and in British Columbia, where she was involved in the implementation of Impacts and Benefits Agreements.

Denise was an active member of the NWT and Nunavut Chamber of Mines from 1997 to 2014 and is a Past-President of the NWT Chamber of Commerce.

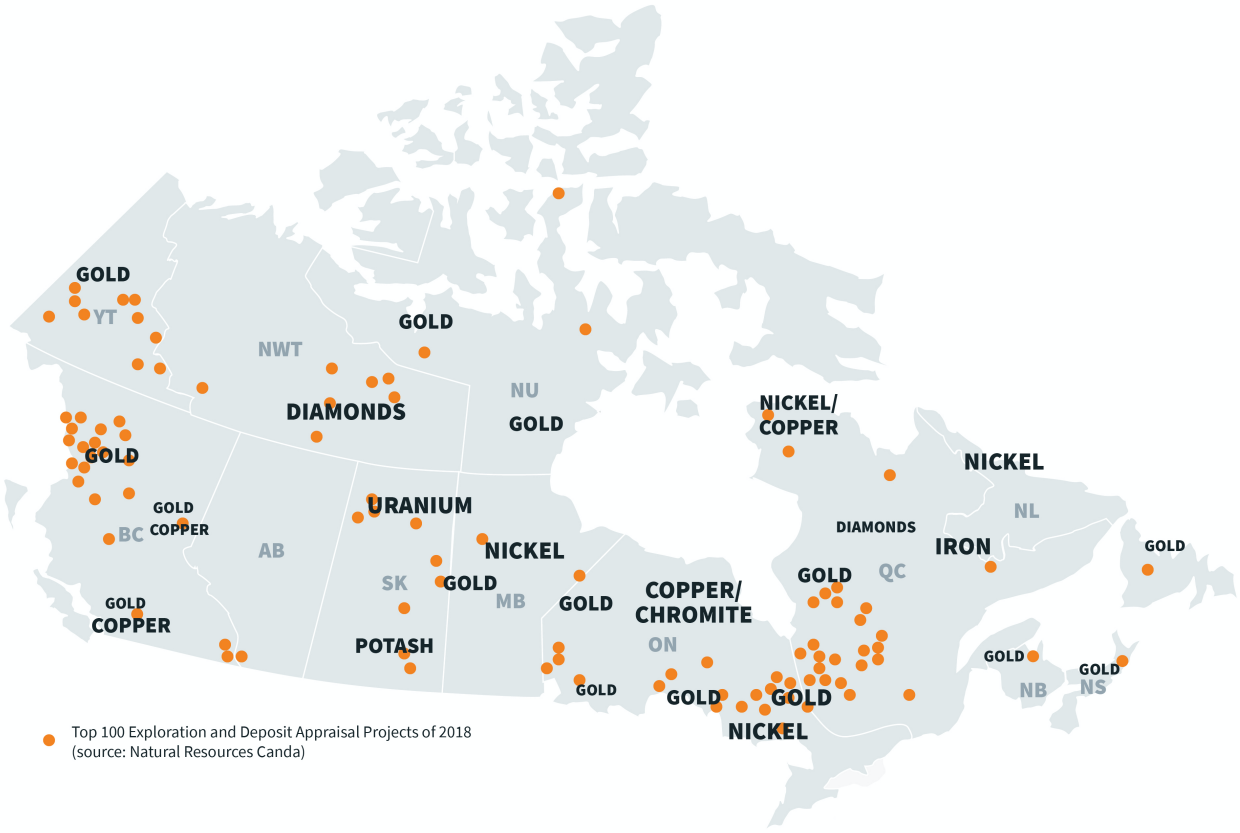
Peter Tapatai
Peter Tapatai is a Principal at Land & People Planning and is the founder and President of Peter's Expediting Limited. Based in Baker Lake, NU, Peter provides advisory, expediting and transportation services to Agnico Eagle's Meadowbank-Whale Tail and Meliadine operations and leads a number of expediting, community consultation, business development, and general management projects at the local, regional, and territorial levels.

Peter was an instrumental figure in the development of the Meadowbank mine and has been a powerful advocate for the mineral development industry, appearing before the Senate of Canada to present on the impact of mining in Nunavut.

Peter is the recipient of a lifetime honorary membership from the Northwest Territories and Nunavut Chamber of Mines and was named Kivalliq Businessperson of the Year in 2012 by the Kivalliq Chamber of Commerce. He was awarded the Canada 150 Medal in 2017. Peter regularly presents at conferences across Canada on the subject of Indigenous participation in the mining sector, most recently at PDAC 2019. Peter was also the recipient of the Order of Nunavut in 2019.

3 Introducing Mineral Exploration

The Canadian mineral development industry is proportionally the largest private sector employer of Indigenous peoples in Canada.[1] This is partly because Canadian mineral exploration projects and mines tend to be located in northern and remote regions close to Indigenous communities.[2] Therefore, Indigenous communities are often geographically well-positioned to take advantage of direct and indirect business and employment opportunities arising from exploration, mine construction, operation, and remediation phases of a mining project. Prior experience serving other resource-extractive industries such as forestry, or participation in infrastructure upgrades, such as road and highway construction or improvements and power transmission network upgrades can also position Indigenous businesses to leverage skills gained and take advantage of opportunities in mineral development, particularly in the intermediate and advanced exploration stages.



Many communities in remote, northern, and arctic Canada, whether Indigenous or non-Indigenous, have sought or are currently seeking to realize the considerable long-term economic benefits that a producing mine can bring to their local economies, including:

- Hundreds of new direct mining jobs, and hundreds more in indirect jobs
- Business opportunities tied to labour and capital-intensive activities required in mine construction and operation
- New economic infrastructure, including improvements or installation of transportation, communication, power networks, and housing

As referenced in PDAC's Exploration and Mining Guide for Aboriginal Communities, Indigenous communities can also identify new economic opportunities to create revenue streams through options like Memoranda of Understanding (MOU) and a host of exploration agreements or contracts. As projects advance, Impacts and Benefits Agreements (IBAs) can be an alternate way to capture additional opportunities while mineral royalties, could provide access to new revenue streams.

Memoranda of Understanding (MOU) and Exploration Agreements may be negotiated during the early stages of exploration and mine development. They define the principles for working together for mutual benefits, and are simple ways to create an understanding between a community and an exploration company. MOUs or Exploration Agreements may develop into a more formal agreement (e.g. an Impact and Benefit Agreement) as projects progress.

Impact and Benefit Agreements (IBAs) and Participation Agreements (PAs) are established once a company has made a commitment to develop a property. It may begin the process of developing IBAs or PAs with local Indigenous communities. These agreements might include guidelines for hiring, business opportunities, training and scholarships. They may make provisions for the preferential hiring of Indigenous people and may discuss how and when community members might receive training. They may also include provisions for some form of revenue-sharing arrangements and payments to offset the costs associated with administrating the agreement.

For communities lacking a strong economic base or with little experience with mineral development projects, the economic impacts of mine construction and operation can be staggering. These projects can create jobs and long-term business opportunities for communities where a historical lack of economic infrastructure has made it difficult to attract key job-creating industries.

The range of economic opportunities across the entirety of the mineral development sequence from exploration through to mine closure and remediation is quite uneven. This report is concerned with the more modest economic opportunities communities can expect to find in mineral exploration, which includes the search for, discovery, and evaluation of a mineral deposit that can be mined commercially. These opportunities are listed in Section 4 below, and are associated primarily with the key exploration activities listed in Table 1 below.

3.1 Exploration in the Mineral Development Sequence

The commercial production phase of mineral development represents the

culmination of what is often many years of exploration and study of a mineral deposit, consultation and engagement with impacted and near-project Indigenous communities, feasibility studies, environmental assessments, and other regulatory requirements.

In the earliest stages of the exploration sequence, when mineral resources are not known, proponents conduct desktop activities, including re-assessment of historic mineral resources, review of publicly available geological maps and surveys, investigation of regulatory requirements and select targets for exploration work. Field activities such as reconnaissance geological mapping, airborne geophysical surveys, rock, soil, and water sampling may also be undertaken. Field activities are conducted for the most part on (or above) Crown Land, usually by individuals or small groups. In many jurisdictions, a “free entry” system means there are no regulations governing a prospector’s access to Crown Land and few (if any) requirements to notify or seek an Indigenous community’s permission to conduct prospecting activities.

Once this early analytic work is completed and a target for further exploration is selected, a proponent may prepare to stake a claim, which will allow them exclusive rights to explore the claimed area. At this time, if they have not already done so, proponents might engage Indigenous communities for the first time to notify them of the plans to stake a claim and conduct exploration activities on the Indigenous community’s traditional territory. While many Indigenous communities ask that companies notify them prior to staking, notification prior to staking is not a legal requirement in most jurisdictions. Indeed, disclosure of staking plans and activities can in some cases, as in the Northwest Territories’ diamond staking rush of the 1990s, result in significant competitive disadvantage. In these cases, engagement as early as possible in the project cycle can help to build trust and lay the foundation for establishing future agreements, such as a negotiation protocol or memorandum of understanding. This will guide discussions between the parties and form the basis for what might someday become an exploration agreement or Impacts and Benefit Agreement (IBA).

As exploration progresses and environmental impacts become more pronounced, consultation and engagement are conducted in concert with operational activities such as drilling, environmental studies and / or monitoring, and permitting, as well as subsequent larger scale mechanical activities such as stripping, pitting and trenching, and initiation of the impact assessment process. Environmental monitoring practices begin with the initial stages of exploration. When a proponent believes they have discovered a favourable deposit, economic studies are undertaken to determine the deposit’s viability. If viable, environmental assessment activities can commence.

TABLE 1: KEY ACTIVITIES ACROSS THE EXPLORATION SEQUENCE

EARLY EXPLORATION – PRIOR TO DETECTION OF MINERALIZATION OR MINERAL DEPOSIT	
▪ Collecting rock and soil samples by hand ▪ Geophysical analysis using basic geoscience surveys ▪ Aerial surveying ▪ Construction of small tent / trailer camps ▪ Line cutting ▪ Claim staking ▪ Environmental baseline samples	This phase is notable for its employment of several scientific analytic methods to identify and begin to evaluate a mineral deposit. Geochemical surveying involves analysing soil, rock, water, vegetation, and vapor for trace amounts of metals which could indicate a valuable deposit, while ground geophysical surveys include a variety of methods, including induced polarization, electromagnetic, magnetic, and sometimes seismic or gravity. Geophysical surveys may also be conducted using aircraft (planes, helicopters, and, increasingly, drones), Global Positioning System (GPS) technology, and satellite imagery to analyse geologic formations. On the ground, line cutting is often required to blaze a path through the bush in order to place pickets, or markers, in a grid pattern with the assistance of GPS to enable geologists to locate their map features. Companies now spend more money than ever before on mine closure and reclamation in order to meet the requirements of increasingly stringent provincial and federal environmental regulations around permitting. Consequently, some companies are engaging in environmental baseline sampling in early exploration.
INTERMEDIATE EXPLORATION - EVALUATING A DEPOSIT TO DETERMINE WHETHER IT SHOULD PROCEED TO DEVELOPMENT	
▪ Line cutting ▪ Drilling ▪ Pitting ▪ Trenching ▪ Preliminary environmental baseline work ▪ Air re-supply ▪ Overland hauling and logistics ▪ Construction of temporary infrastructure ▪ Camp operation, including catering ▪ Site remediation	The Intermediate Exploration phase centres on subsurface drilling and the logistical operations and construction activities required to transport the drill rig and staff to the project site, re-assemble the rig, and prepare the site for the program. A diamond drill may be used to extract rock core for analysis. Under some circumstances, other drilling methods such as sonic, rotary, reverse circulation, or pneumatic (air hammer) may be used. Logistical operations may include air and marine transportation of the drill equipment and crew and hauling the rig through forested areas. On-site construction activities focus on removal of overburden from the rock face. Construction of temporary infrastructure (e.g., access roads or trails) and improvement of existing infrastructure (e.g., culvert bridge repair) may also be required. Resulting drill samples are stored and catalogued in a core shack, which may double as a community office. In some circumstances, a small camp capable of housing 5-10 staff may be required for a single drill program. Staff numbers will depend on the size of the operation.
ADVANCED EXPLORATION - FULL TECHNICAL AND ECONOMIC ASSESSMENTS ARE CARRIED OUT AND A DECISION IS MADE WHETHER TO PROCEED TO COMMERCIAL PRODUCTION	
▪ Bulk sampling ▪ Shaft exploration ▪ On-going environmental assessment ▪ Pre-feasibility / feasibility studies ▪ Drilling ▪ Stripping ▪ Trenching ▪ Occupational health and safety ▪ Camp operation, including catering and janitorial services	Advanced exploration involves an amplification of many of the activities listed above, in addition to bulk sampling of large quantities of ore and excavation for underground work. This phase may see the construction of some permanent infrastructure required to transport bulk samples from the project site. In the most remote northerly settings, this may require construction of ice roads and airstrips. Where Intermediate exploration may require the use of typical heavy equipment, such as excavators and bulldozers, Advanced Exploration may require larger, more specialized, and expensive equipment, particularly in the most remote Arctic settings. Larger camps of up to 80-or-more staff may be required.

3.1.1 Exploration Spending

Annual spending on mineral exploration and deposit appraisal accounts for a small portion of the spending undertaken by the mineral sector as a whole. Nevertheless, exploration remains a significant contributor to Canada's Gross Domestic Product and especially for the economies of northern and rural communities and regions.

In 2019, exploration expenditures were forecasted to be approximately $2.1 billion.[3] These expenditures account for approximately 3% of the mineral sector's total direct contribution to Canadian GDP. A survey of exploration and mining companies predicted that approximately 86% of their 2019 expenditures would occur outside of producing mine sites, with the remaining 14% spent exploring on producing mine sites.[4] Approximately 73% of 2019 exploration expenditures were directed to advanced-stage projects. "Greenfield" expenditures were down to 27% from a recent high of 45% in 2008.[5]

Interior of Niobay Metals' Core Shack in Moosonee, Moose Cree First Nation Traditional Territory

Exploration spending was highest in the relatively mature mining districts of Ontario, Quebec, and British Columbia. Exploration spending in more remote regions and jurisdictions, such as Nunavut, is often skewed by high transportation costs, due to the logistical complexities associated with operating in those regions.

It is difficult to estimate the level of expenditure or economic activity a community can anticipate over the life of a single exploration project, as the size of projects can vary considerably depending on how well the project is financed, the remoteness of the site, and the commodity, among other considerations. However, some individual experiences can begin to provide a clearer picture.

In the *Chapleau Mining Readiness and Growth Strategy*, the Chapleau (Ontario) Economic Development Corporation estimated, that, in 2015, during the pre-feasibility stage (prior to commencement of advanced exploration), Goldcorp's Borden Gold Project spent in excess of $2 million within the local economy, which includes Brunswick House First Nation, Chapleau Cree First Nation, and Chapleau Ojibway First Nation, all of whom entered into an exploration agreement with the company.[6]

In 2017, Osisko Mining's Windfall Lake gold exploration project in the James Bay Region of Northern Quebec purchased an estimated $20 million in goods and services from local suppliers, including Indigenous businesses, and employed 80

Indigenous workers. The project, currently in advanced exploration, features two dozen drills, and is uncharacteristically large.[7]

To further illustrate the range of spending possible during the intermediate exploration stage, a spring drill program with a single drill operating for 4-5 weeks in a remote boreal or subarctic setting (Labrador, the James Bay region of Ontario and Quebec, or the parkland of Manitoba and Saskatchewan) may spend approximately $1.3 million, including camp costs, drill and core shack helpers, a temporary environmental monitor, and logistics. While it is difficult to estimate the cost of a drill program, generally, a company may expect to spend from $200 up to $400 for every metre drilled.[8]

Other studies have attempted to accurately calculate the value of mineral exploration and mining to their economies. Drawing on Statistics Canada figures, Nunavut Resources Corporation estimates that every $1 million spent on mineral exploration within the territory generated $518,000 in direct contributions to territorial GDP, along with an additional $111,500 in indirect and induced contributions.[9] The high GDP-to-economic output ratio for Nunavut speaks to the high costs of operating in Arctic Canada.

In their forecast of the total contribution of anticipated mining projects to the northwestern Ontario economy, Fort William First Nation and the City of Thunder Bay applied multipliers ranging from 1.25 to 1.75, based on studies of the mineral sector's contribution to local, regional, and province/state economies for several jurisdictions in Canada and the United States, including British Columbia and Ontario.[10]

TABLE 2: MINERAL EXPLORATION EXPENDITURES BY JURISDICTION (2019)

Jurisdiction	Exploration Expenditures ($ million)
Ontario	497
Quebec	432
British Columbia	352
Saskatchewan	273
Yukon	140
Nunavut	123
Manitoba	67
Northwest Territories	66
Newfoundland & Labrador	49
Alberta	42
Nova Scotia	36
New Brunswick	11

3.1.2 Exploration Timelines & Budgets

In relation to the operational phase of mining (the only phase when mining companies make money), exploration and permitting can take a long time, and, in some cases, longer than the operational mining phase.

While most operating mines must operate continuously in order to remain profitable, exploration is often characterized by sporadic, seasonal work – dictated by weather and environmental conditions as well as by an unpredictable financing cycle, which depends on the global economic forces that influence the price of minerals and availability of capital.

As many junior miners and Indigenous community leaders will attest, the exploration phase is notable for its tight budgets. This is because, throughout the process, exploration projects do not generate revenue, only expenses. Prospectors may depend on exploration or mining companies to finance their

operations in return for a specified interest in any resulting discovery. This practice is known in the industry as “grub staking.” Some prospectors are contracted directly to exploration and mining companies. Junior mining companies depend heavily on capital markets to obtain funds to pursue their exploration activities. Large mining companies, and some intermediate producers with existing operations, can often fund projects from their other producing mines in addition to funds sourced from capital markets.

For investors, mineral exploration is generally a high-risk proposition; it is estimated that as few as 1 in 10,000 early exploration projects will ever become a producing mine. Typically, exploration projects receive an influx of financing when preliminary drill results indicate the presence of a potentially valuable deposit. If drill results and economic conditions are not favourable, a company may cease exploration activities on a property.

TABLE 3: TIMELINES AND BUDGETS FOR MAJOR MINING PROJECTS

Exploration & Deposit Evaluation	Mine Development	Commercial Production	Closure
communities, company, governments spending $	company spending $	communities, company, governments making $	company spending $
Prospecting & Staking →			
$500 – 0.5 million			
Exploration (diamond drilling) →			
$0.5 – 5 million			
Indigenous Consultations →			
$0.5 – 10 million			
Bulk sampling, drilling, shaft excavation →			
$10 – 50 million			
Feasibility studies →			
$10 – 100 million			
Environmental studies →			
$5 - 50 million			
	Permits →		
	Construction →		
	$500 m – 1 billion		
		Mining →	
		$3 billion	
			Site Rehab →
			$1 – 500 million
10 – 15 Years	**5 Years**	**10 – 20 Years**	**2 + Years**

This table references content contained in Constance Lake First Nation and Town of Hearst (SVN & Collins Barrow), Mining Readiness Strategy: Regional Opportunities and Readiness Report (2016)

In order to incentivize investment in mineral exploration, exploration companies are permitted by the Federal Government to issue Flow-Through Shares (FTS), which allow companies to pass along eligible exploration expenses to investors who then are able to claim those expenses for tax purposes. This unique investment product is a testament to the importance of the mining sector to Canada's economy.

The Canadian *Income Tax Act* establishes the Canadian Exploration Expenses (CEE) eligible to be passed on to investors via the FTS mechanism. Generally, these are expenses incurred to conduct activities that lead directly to the discovery and appraisal of a mineral deposit, including costs associated with the Crown's Duty to Consult Indigenous communities about potential impacts to Treaty and Aboriginal rights. As FTS are vital to obtaining financing for exploration projects, there are few incentives for companies to incur expenses that fall outside of the *Income Tax Act*'s parameters of eligibility. Furthermore, in order to retain a mineral claim, companies must perform a minimum amount of work on site to advance the project and determine its economic viability. Depending on how well the project is financed, these Minimum Work Requirements can account for a large portion of a company's annual budget.

As a project reaches different development milestones, such as discovery or feasibility, junior companies engaged in exploration activities will often sell their projects to larger, better-financed developers who take on responsibility for all permits, licenses, and agreements. Companies may offer Indigenous communities different equity or other options to participate in projects. Options might include common shares, royalties (should the project proceed to the commercial production stage), or work agreements, among others. Indigenous communities should note that each participation mechanism carries its own risk, and so communities should undertake a comprehensive review and due diligence when negotiating terms. Communities should also note that the mining company that will ultimately develop and operate the mine is likely to want to negotiate its own IBAs rather than inheriting these important agreements from a previous developer.

4 Economic Opportunities Across the Exploration Sequence

It is within the range of activities described in Table 1 above that Indigenous communities and businesses can participate in mineral exploration projects.

4.1 Key Opportunities

Some key opportunities include:

- Provide key services to support exploration, including staking, line cutting, drilling, field assistants, wildlife monitoring, and camp operation
- Grow existing service offerings to include specialized scientific services, including geophysical and geochemical surveying and environmental baseline information gathering
- Share Indigenous Traditional Knowledge and provide archaeology services.
- Develop and encourage local prospecting and early exploration to attract investment to their territories
- Provide construction and logistical support for drill programs and advanced exploration projects, including air and marine transport and building and improving infrastructure
- Invest directly in exploration and mining companies and projects

Additionally, communities can potentially obtain employment and business opportunities via an exploration agreement or other negotiated agreement with an exploration company. In certain cases opportunities to gain project equity have been recognized in Canada. In the case of a mining company that has achieved production elsewhere, there may be a broader set of financial and employment options for communities and companies to consider.

The need to build and service projects can lead to many local procurement opportunities for Indigenous community-owned businesses and entrepreneurs, acting either independently or in a joint venture or other form of partnership with a more experienced or well-financed company. When at their best, these partnerships can create jobs and build lasting capacity within a community to take advantage of business opportunities in mineral development as well as opportunities in sectors.

Partnerships conceived for the dual purpose of generating revenues and creating jobs may require the use of existing training programs or development of tailor-made programs to prepare workers for careers in drilling, construction, or other trades specific to exploration.

There are well-established government and non-profit organizations that can be engaged to accomplish training needs. Communities may also to seek out private companies that offer training opportunities in key areas, such as diamond drilling or heavy equipment operation.

PRIVATE SECTOR TRAINING INITIATIVES – NIMKIE MINING DIAMOND DRILLING AND HEAVY EQUIPMENT TRAINING, TEMAGAMI, ON

Nimkie Mining, a 100% Indigenous-owned exploration service firm operating near Temagami, Ontario, has assembled stakeholders to provide surface diamond drilling instruction and accredited heavy-equipment operator training to Indigenous youth in northeastern Ontario.

Chief Randall Becker, CEO, Nimkie Mining (Northern Ontario Business)

Communities can also work directly with exploration companies to encourage mentoring of community members in key technical skills such as environmental monitoring and sampling, or GIS to encourage entrepreneurship in exploration-related trades. Training opportunities will be identified and discussed in Section 6 below.

4.1.1 Land-based Opportunities – Line Cutting & Staking

A community owned-business without much experience in exploration and mining may be able to providing services to assist companies' on-the-ground operations. Line-cutting and staking are both common ways for Indigenous businesses to become involved in the early exploration phase, though with technical advances in GPS and the advent of digitization in prospecting, these activities are becoming less common in some jurisdictions.

Staking and line-cutting do not require a high degree of skill or training. However, some knowledge of mineral exploration and GPS is useful, and training in workplace safety is required. Community-owned businesses seeking to develop service offerings in these fields should investigate options for training with their local Indigenous Skills and Employment Training (ISET) Program agreement holder or a regional community college in coordination with mineral sector proponents operating in their traditional territories.

4.1.2 Diamond Drilling

An Indigenous community-owned business with experience in exploration and drilling could act as a drill contractor, either solely or in a joint venture or partnership, increasing the chances that the majority of an exploration company's investment in an annual drill program could be retained within the community. As this study notes in Section 5, many Indigenous community-owned and privately owned businesses throughout Canada provide this central service to exploration companies.

Diamond drilling technology has changed little over the past few decades, compared to drilling technology for other sectors. As a result, used drilling equipment can be available on the marketplace. However, any used equipment may require considerable investment and maintenance in order to provide an acceptable level of service to an exploration company.

BIG RIVER MINERAL EXPLORATION INC.

100% owned by Na-Cho Nyak Dun Development Corporation, Big River Mineral Exploration is a service offering to junior exploration firms operating in the traditional territory of Na-Cho Nyak Dun First Nation. It currently has aspirations to expand beyond its base of operation in Yukon into Northern British Columbia and other Canadian and international jurisdictions.

The company was formed following careful market analysis that considered the pace of mineral exploration and investment in the territory, the demographics of the local exploration workforce, and the competitive environment.

The company leverages its status as a wholly-Indigenous-owned entity and NNDFN's status as a signatory to several IBAs to offer the following specialized services:

Project Planning

- *Project Evaluation*
- *Property acquisition and staking*
- *Project design and budgeting*
- *Permitting*
- *Data compilation/integration*
- *Exploration program design*
- *Contractor procurement and logistical support*

Exploration services

- *Reconnaissance geology*
- *Stream and soil geochemical surveys*
- *Geological mapping*
- *Trenching*
- *Drill planning, supervision and core cutting*
- *Resource modelling*
- *Data management*
- *Report preparation and assessment filing (NI 43-101)*
- *Quality assurance and control*

The goal of the company is to maximize opportunities for Indigenous workers, whether it be in self-directed field crews or in other field operations. These include field assistants such as core cutters, samplers, camp support staff and others.

4.1.3 Grow Enterprises and Build Entrepreneurs Around Environmental Monitoring

It is highly advisable for community-owned businesses to begin to develop the ability to assist companies to meet environmental obligations along the entirety of the mineral development project cycle. Interviews conducted for this report indicate that environmental monitoring remains a relatively underdeveloped area of opportunity for Indigenous businesses. Some communities may already possess related capabilities from previous work around forestry projects or environmental remediation initiatives.

Communities should encourage companies who engage in early environmental baseline sampling and monitoring to mentor community members to help build experience in these scientific fields, including sampling of surface and ground water and soil and identifying the potential for acid rock drainage and other environmental hazards. Community-owned businesses can also develop strategic alliances with environmental consulting firms in order to build capacity and experience in environmental services.

4.1.4 Grow Existing Services to Include Specialization in Geochemical and Geophysical surveying

Development of businesses around these technical activities entails some risk. Due to the sporadic and seasonal nature of this work, a community-owned business may have difficulty developing expertise in these fields unless they have spent many years participating in mineral exploration projects and commercial mining operations and established a roster of quality joint ventures to build capacity in those areas.

While Na-Cho Nyak Dun Development Corporation's (NNDC) establishment of Big River Mineral Exploration Inc. provides evidence that there are opportunities

for success for community-owned businesses that offer these technical services, Big River is also a testament to NNDC's years of experience developing joint ventures and strategic alliances with experienced exploration companies in the Mayo, Yukon Region.

By building expertise in these areas, Indigenous community-owned businesses can begin to develop a service offering to prospectors and exploration companies seeking to access to their traditional territories.

KEY CONSIDERATIONS

Communities need to understand that the viability of the service offering is highly dependent on three principal variables:

- ***The level of early exploration activity***
  Sustained interest by multiple prospectors and companies within a community's traditional territory or jurisdiction can potentially support a business or businesses servicing the early exploration sector

- ***A community's ability to track and understand the level of early exploration initiatives in their territory***
  Without this knowledge, Indigenous businesses will be unable to market their services and plan for the expansion and development of early exploration projects

- ***The Market must be strong***
  The market for specialized services can be saturated by experienced providers. While an Indigenous community-owned business will typically enjoy some advantages in its traditional territory, new companies established to offer geophysical and geochemical surveying within mature mining districts with advanced exploration service sectors may encounter difficulty penetrating the market. Furthermore, Indigenous businesses offering specialist services will need to demonstrate an adequate level of expertise and experience.

4.1.5 Invest in Early Exploration Activities

Engaging directly in early mineral exploration activities and investing directly in local prospectors are both ways that communities can take advantage of mineral resources in their traditional territories.

Investing in local prospectors - that is, building knowledge of potentially promising mineral deposits, is a good way to attract exploration companies to a territory or region, similar to how the construction of infrastructure such as roads, power transmission networks, and airstrips can attract different types of industrial investment, including exploration and mining.

The Cree Mineral Exploration Board (CMEB) performs several functions that support early exploration in Eeyou Istchee, including providing funding for local Cree prospecting initiatives and existing Cree-owned exploration projects and

TABLE 4: CMEB & MENR INVESTMENT IN CREE-OWNED EXPLORATION COMPANIES (2018-19) (2018-2019 CMEB ANNUAL REPORT)

COMPANY / ORGANIZATION	PROJECT / INITIATIVE	INVESTMENT ($)
Nimsken Corporation Inc.	*2018 Barlow Lake DDH Project NTS 32G15*	*22,500*
Native Exploration Services Inc.	*Purchase of electromagnetic surveying technology*	*10,500*
SD Mines Inc.	*R17 Project*	*96,125*
CMEB	*Summer Minerals Prospecting Initiation (workforce awareness initiative)*	*105,175*
8 Cree prospectors	*Several individual prospecting initiatives*	*96,444*

The CMEB is focused on encouraging prospecting activities among Cree tallymen and others, who possess a level of knowledge of the land conducive to prospecting, and who are also central to Cree communities' interactions with exploration companies. CMEB initiatives elide with Cree Nation Government policies and traditional practices, which direct prospectors and exploration companies to Cree communities and tallymen in order to explain projects and learn about their anticipated environmental impacts.

With the support of the Cree Nation Government and Government of Quebec, the CMEB also works to build awareness of prospecting opportunities among residents of Eeyou Istchee through conferences and workshops.

raising awareness of mineral exploration opportunities within the district. The Nunavik Mineral Exploration Fund performs a similar function in Nunavik.

According to research undertaken for this report, few Indigenous communities have developed community-owned businesses that undertake grassroots or "greenfield" exploration. However, in some regions communities desire the expansion of the exploration sector within their traditional territories, and are working with governments to lay the ground work for sustainable development of natural resources. Communities should seek financial support from governments to build awareness of the mineral development sector and prospecting opportunities among Indigenous community members. Especially groups with a significant presence on the land, such as tallymen, hunters, and trappers.

4.1.6 Opportunities in Construction and Logistics

Indigenous businesses are often involved in activities required to service a drill program, which usually includes construction of drill pads to support a drill rig, construction and servicing of a small camp, transportation of goods and supplies by ground and air, and construction of infrastructure required to access and provision the site.

In some locations, community-owned businesses that provide construction and related surveying services to exploration projects could be expected to perform many tasks using heavy equipment available to them. In other locations, a strategic partnership involving more experienced companies may be the only way community owned businesses can participate. The establishment of strategic partnerships will be discussed in Section 6 below.

Communities possessing specialized transportation equipment, including airplanes and helicopters, may perform complicated logistical tasks, including disassembly, transportation, and reassembly of a variety of helicopter-portable drill rigs at the drill site.

This diamond drill rig can be broken down into components and flown by twin otter and / or helicopter to remote exploration sites. Other drills may be hauled by bulldozer or other heavy equipment through the bush. Opportunities exist for businesses involved in air and marine transport, road, airstrip, and helipad construction, not to mention operation of the drill itself (Springdale Forest Resources).

While a small drill program does not typically employ more than half a dozen employees as driller helpers, core shack helpers, wildlife monitors, and camp staff, such as a cook or security guard, an Indigenous economic development corporation can often find an important outlet for their capacity to perform typical services in support of an exploration project, especially when the business performs similar tasks for other projects and sectors, including provincial road work, forestry, or delivery of services within the community and local municipalities.

The scale of infrastructure requirements for individual exploration projects varies tremendously across the country, and is typically much greater in more remote regions, such as Arctic Canada, with longer, colder winters, and where infrastructure is lacking. As projects progress into advanced exploration, when bulk sampling occurs, trail and road accesses created or refurbished to suit more limited activities may require additional upgrades, particularly to support the transportation of hundreds or thousands of tonnes of bulk sample material. A review of construction projects undertaken by majority-Inuit-owned Nuna Group of Companies, Canada's largest Indigenous-owned civil contractor, to support exploration projects is indicative of the large range of infrastructure requirements required to support the sector across the country (see Table 5 below).

TABLE 5: NUNA GROUP OF COMPANIES INFRASTRUCTURE PROJECTS TO SUPPORT EXPLORATION

JURISDICTION	PROJECT	ACTIVITIES
NT / NU	Gahcho Kue, Nisha (DeBeers)	▪ Construction of winter access road ▪ Preparation of temporary ice airstrip ▪ Construction of 125km winter road
NT	Afridi Lake, Arnak (Kennecott)	▪ Construction of 65km ice road ▪ Preparation of temporary air strip ▪ Construction of drill pads ▪ Construction of ice airstrip
NU	Qilalugaq (BHP)	▪ Erection of 50-person camp ▪ Construction of 5,000ft, Hercules-supporting air ice strip
NU	Hayes (Committee Bay Resources)	▪ Construction of 5,000ft Hercules-supporting air ice strip
ON	Martisan Phosphate (Phoscan Chemical Corp)	▪ Removal and replacement of culvert bridge ▪ Re-profiling and re-grading of crossings and 35km access road
SK	Falcon (Rio Tinto Exploration)	▪ Upgrades to 30km access road

With some notable exceptions, including De'ton Cho Corporation and NNDC, most Indigenous economic development corporations typically lack the type of heavy equipment required to complete infrastructure projects in remote, arctic-based exploration projects. However, many will possess much of the equipment required to participate in more limited infrastructure upgrades in the boreal and subarctic zones, including:

- Water trucks
- Haul trucks
- Excavators
- Dozers
- Loaders
- Graders
- Scrapers
- Fuel trucks
- Pickups
- Quads
- Boats

Where community-owned businesses do not possess the equipment required to bid on jobs, they may be able to lease the necessary equipment. When businesses lack the capital or human resources to bid on contracts independently, they can establish strategic partnerships, contributing their knowledge of the local market for goods, services, and labour, access to and relationships within the local supply chain, and knowledge of the land. Some Indigenous businesses may also be able to strengthen joint ventures through preferential contracting treatment negotiated with mining companies or eligibility for government grants that support Indigenous businesses and community economic development.

Generally, Indigenous businesses operating in regions with existing operating resource projects are better positioned to capitalize on opportunities arising out of advanced-stage exploration projects, as these companies often have the necessary infrastructure in place and thus do not have to scale up for short term projects.

WEBEQUIE FIRST NATION – INVESTING IN EXPLORATION

In the early 2000s, after paying close attention to the proliferation of drills in the Ring of Fire Area and over time developed a strategy to become directly involved in mineral exploration. To that end, in 2008, they partnered with Cyr Drilling International, obtaining a twenty per cent stake in the company. The First Nation Dev Corp brought its strategic location near the project area, all-weather airstrip, knowledge of the territory, and human resources, to the table, while Cyr brought its technical expertise. In addition, Cyr provided capacity building support to support training of First Nations to fill positions within the company. The joint venture was a larger part of Webequie First Nation's broader effort to take advantage of opportunities in mineral exploration, and joined a portfolio of enterprises that included hospitality, line cutting, claim staking, and fuel delivery. In 2016/17, the joint venture conducted a drill program for Noront Resources near its Eagle's Nest property.

This is a good example of a community taking a long-term approach to participation in exploration and becoming involved in diamond drilling and geophysical surveying among the industry's most central activities. This approach was designed to generate revenue for the community, and also to create jobs. For those companies looking to become involved in the drilling business in the absence of an experienced joint venture partner, training programs can often be accessed through ISET Agreement Holders, such as a Tribal Council or Regional Inuit Association.

4.1.7 Invest Directly in Exploration Companies and Projects

Some communities choose to invest directly in exploration companies or alternatively in a more narrowly defined project in that community's region. It is important for communities to be clear on whether their participation is with a mining company, or specifically with a project owned by the mining company, as this will impact the rights and influence the community may have. This participation can help those communities benefit from potential increased value from discoveries or from potential project profits.

4.1.8 Project Equity & Revenue Sharing Agreements

An exploration agreement may contain language outlining potential benefits related to employment, business development and social infrastructure. In some cases company shares and equity, or even direct payments (direct payments are unusual, because exploration projects do not generate revenues). One day, these shares may result in a payment of capital gains or dividends on a sale of the project to a developer.

There are different scenarios under which this benefit may prove profitable:

1. The project is sold to a 'major' miner or another entity at a higher valuation than when it was obtained by the community (capital gains are generated by the sale). A shareholder may be able to cash out when preliminary drill results indicate a favourable deposit, for example.

2. The project becomes profitable during commercial production (there is no guarantee that this will occur).

TABLE 6: GOODS AND SERVICES PURCHASED FROM INDIGENOUS-OWNED BUSINESSES

Goods and Services Required by Exploration Firms (21 respondents)	% of Respondents Purchased from Indigenous Community-Owned Businesses (18 respondents)
Core cutting (**100% of respondents**)	66.7
Road & brush crews (**52.4**)	66.7
Diamond drilling (**90.5**)	38.9
Fuel & energy (**52.4**)	38.9
Construction / surveying (**28.6**)	16.7
Environmental monitoring (water, soil) (**47.6**)	16.7
Other environmental – technical (**33.3**)	11.1
Legal Services – (**38.1**)	11.1
Camp services – (**71**)	11
Staking – (**42**)	6
Logistics & expediting – (**66.7**)	6
Assaying – (**85.7**)	5.6
Crushing – (**23**)	5.6
Marine transport / sea lift – (**4.8**)	5.6
Food wholesale – (**42.9**)	5.6
Environmental wardens – (**14.3**)	5.6
Planning / infrastructure planning – (**19**)	5.6
Heavy equipment (including maintenance & repair) – (**52.4**)	5
Restaurant & accommodation – (**42.9**)	4
Aviation services – (**71.4**)	3
Mechanic – (**23.8**)	3
Security – (**19**)	3
Reverse circulation (RC drilling – (**28.6**)	0
Laboratory services – (**61.9**)	0
Engineering – (**33.3**)	0

Commercial debt and other commitments must often be repaid prior to a company being able to issue dividends to shareholders. Therefore, a mine with a single operation might be well into commercial production before an Indigenous community receives a dividend. Even in this case, there is no guarantee that dividends will be paid to shareholders. In the event that a project becomes a producing mine, negotiated payments based on profits or production volumes could generate nearer-term benefits. Obtaining an equity stake in the exploration company itself could provide benefits earlier in the project cycle, though communities should note that share prices may be influenced by a company's entire portfolio of exploration and mining projects. Generally, the practice of issuing company equity to communities is more common in the energy sector where exploration timelines are shorter than in mineral exploration and the chances of success are greater.

4.2 Summary of Survey Findings – Indigenous Participation Across the Exploration Sequence

An online survey conducted for this study indicates that Indigenous-owned businesses actively participate in most of the central activities associated with intermediate and advanced exploration, such as diamond drilling, core sampling, line cutting, and delivery of camp services.

The services that the study's industry respondents most often purchased from Indigenous community-owned businesses are:

- Core Cutting (12 of 18 respondents)
- Road & Brush Crews (12 of 18 respondents)
- Camp Services (11 of 18 respondents)
- Diamond Drilling (7 of 18 respondents)
- Provision of Fuel & Energy (7 of 18 respondents)

Together, the six Indigenous community leaders and economic development corporation managers who participated in the survey reported that their community-owned businesses provide each of the products listed in **Table 6** to support exploration projects.

The most common services provided by these Indigenous community corporations are:

- Road and brush crews (6 of 6 respondents)
- Diamond drilling (5)
- Camp services (3)

Table 7 shows the complete list of the goods and services provided to exploration projects by the study's Indigenous community survey respondents.

Section 7 will discuss steps communities and community-owned businesses can take to help ensure they are successful in their efforts to establish and grow businesses in these fields. The next section will identify challenges and risks that can jeopardize those efforts.

TABLE 7: GOODS AND SERVICES PROVIDED BY INDIGENOUS COMMUNITY-OWNED BUSINESSES (6 INDIGENOUS COMMUNITY SURVEY RESPONDENTS)

Respondent Type	Modern Land Claim	First Nation (Numbered Treaty)	Tribal Council (Numbered Treaty)	First Nation (Numbered Treaty)	First Nation (Numbered Treaty)	First Nation Economic Dev. Corp. (Numbered Treaty)
Agreements with mining companies (producing) *	1	1	5	2 (including 1 recently closed)	-	-
Agreements with exploration companies (exploration projects) *	-	1	9	1	3	1
Goods and services provided to exploration projects	Diamond drilling Staking Aviation Services Marine transport Logistics and expediting Camp services Road and brush crews Construction / surveying Environmental wardens	Assaying Core Cutting Crushing Diamond Drilling RC drilling Sonic Drilling Staking Lab services Heavy equipment operation and maintenance Mechanic services Camp services Food wholesale Restaurant and accommodation Soil and water monitoring Legal services Planning	Crushing Diamond drilling Logistics & expediting Mechanic Services Camp services Food wholesale Restaurant & accommodation Security Fuel and energy Road and brush crews Construction / surveying Environmental Wardens	Diamond drilling Road and brush crews Environmental monitoring	Aviation services Road and brush crews	Diamond drilling Heavy equipment operation and repair Road and brush crews Environmental monitoring Environmental wardens

* *Numbers are approximate*

5 Challenges and Risks Facing Indigenous Participation in Exploration

What, then, are the key challenges and risks that may prevent Indigenous participation in mineral exploration? The following section summarizes the external and internal challenges that can shape a community's ability to participate meaningfully in mineral exploration from an economic development perspective.

MANAGING RISK ACROSS THE EXPLORATION SEQUENCE – MANAGING GROWTH

Indigenous development corporations should as much as possible try to avoid being overburdened by fixed costs in the event of a prolonged down cycle in the sector. One of the ways to do this is to resist the temptation to grow too fast, and, if possible, make sure that the company does not acquire major fixed assets, such as aircraft and heavy equipment unless they are expected to generate long-term revenues.

Community owned businesses, especially those in communities with high unemployment and few key industries driving economic growth, are often eager to participate in exploration and mining when the opportunity arises. These businesses may be tempted to invest in expensive and / or highly specialized machinery to enable them to more successfully bid on contracts and attract joint venture partners. However, unless the level of exploration and mining activity in a region justifies the investment, and the capacity of an Indigenous business is at a level where it can make good, sustained use of new assets, businesses should use what leverage they have, to pass those costs onto more experienced joint venture partners who, at the end of the contract, will be able to make better use of the asset.

PROJECT RISK

The exploration phase of the mineral development sequence is highly dependent on availability of financing and fluctuating global commodity prices, not to mention uncertainty surrounding the value of the deposit being explored. Therefore, the development of businesses solely dependent on this sector is fraught with risk. Indigenous businesses that invest in new equipment and training in order to participate in projects can lose that investment when a project, or group of projects, disappears or is substantially delayed.

Projects may be delayed or cancelled because a company depletes its exploration funding or the price of the underlying commodity does not justify continued investment. The fact that junior exploration firms tend to raise exploration dollars annually also makes it difficult for them to commit to long-term contracts. Consequently, impacted communities are often provided with short-term opportunities, which makes equipment financing difficult.

Depending on the commodity, its application and market may also not be fully understood, and end users may not be determined (this is more likely to be the case with rare earth or platinum-group minerals than with gold or base metals with well-known industrial applications).

Finally, like any other business, exploration projects can suffer from mismanagement. The negative effects of failures at the corporate level can affect the businesses that provide services to projects. Indigenous businesses can also be exposed to the fortunes of their joint venture partners. Communities should be mindful of potential liability they take on as a result of business initiatives they pursue.

GOVERNANCE AND CAPACITY WITHIN INDIGENOUS BUSINESSES

From the perspective of an Indigenous community-owned business, a lack of experience in planning and running a business, as well as the potential for interference in company affairs by political leaders can affect a community-owned business's ability to seek out strategic partnerships and invest appropriately in the capital and human resources required to participate on projects.

SKILLS AND TRAINING

Indigenous communities and businesses are often unprepared to respond in a timely manner to opportunities around mineral exploration projects because they lack the human resources required for success.

They may be located in regions with little experience or awareness of exploration and mining, necessitating some specialized training or instruction to allow businesses to become involved in line cutting or staffing a drill crew.

In some remote communities, essential skills levels may be so low as to preclude involvement in the workforce more generally.

LIMITED CAPITAL

Limited capital is a persistent problem facing Indigenous development corporations seeking to develop a service offering around exploration projects.

LACK OF AWARENESS OF PROJECTS AND ASSOCIATED OPPORTUNITIES

Finally, Indigenous businesses can run the risk of missing out on opportunities because they lack awareness of regulatory processes and reporting requirements around exploration permitting that might otherwise provide them with valuable lead time to plan for business opportunities.

The seasonal nature of many exploration projects means that communities may have limited interaction with company staff between seasonal drilling operations. During this time, lines of communication that that may help communities prepare to capitalize on upcoming opportunities can be broken.

6 Community Planning for Involvement in Exploration

The following section details steps Indigenous communities, community-owned businesses, exploration companies, joint venture partners, and governments can take to help communities overcome the challenges identified in the preceding section.

6.1 Policy Development

By the time the early exploration stage is over, a community should have some idea of whether it is open to supporting and participating in mineral exploration projects, and on what terms. To maximize the likelihood of success in engagement with mineral companies, communities that desire to participate, benefit, and to some measure control the development of natural resources within their traditional territories should begin to develop the planning and policy frameworks that will guide their approach to exploration and mining (not to mention forestry and other natural-resource-based projects). A community land-use plan that decides how best to use land within a community's territory is a good place to start.

6.1.1 Land Use Planning

In Ontario, the *Far North Act* sets out a land-use planning process to bring communities and government together to identify land to be used for different types of development, including exploration and mining. The process enables communities to better participate in the selection of projects it wishes to support, while avoiding potential conflicts over projects in areas it wishes to protect for other purposes.

Indigenous communities in other jurisdictions have also established similar plans that facilitate prioritization of land use activities.

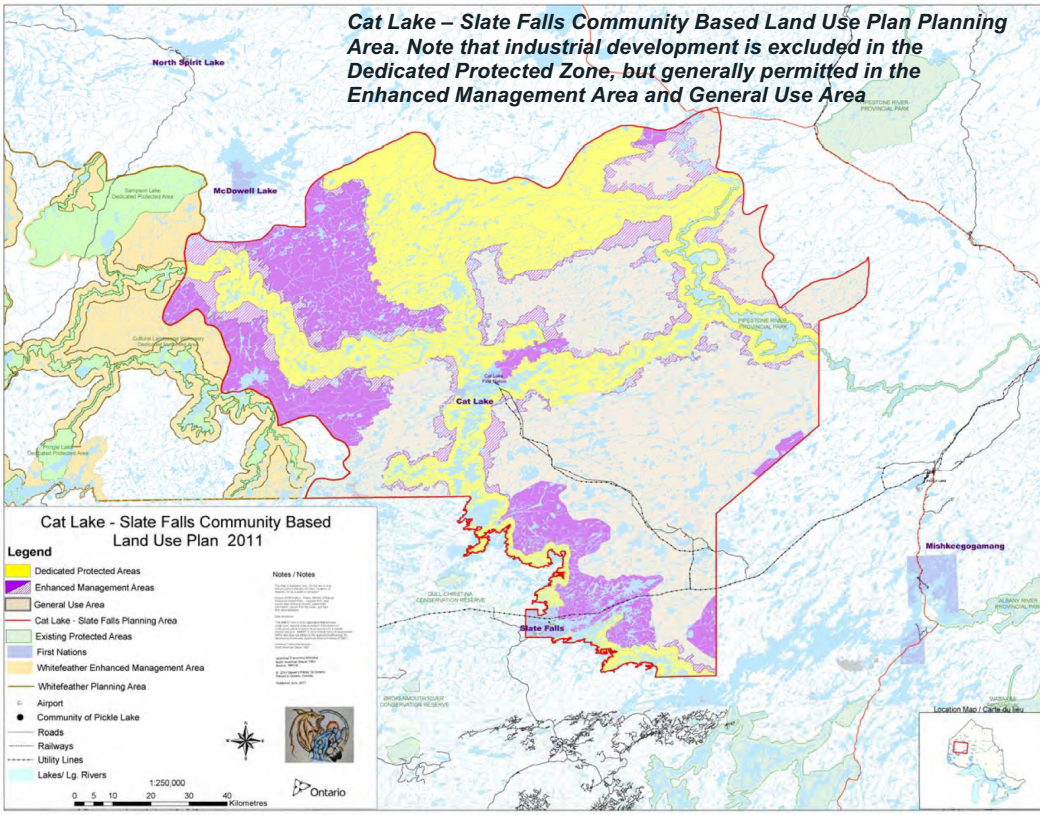
6.1.2 Mining Readiness Strategies

Mining Readiness Strategies are focused planning exercises designed to prepare indigenous communities to participate in specific projects or groups of projects. They can be an effective way to involve Indigenous communities, mineral industry proponents, other communities, including municipalities, and stakeholders in plans to develop region-based preparedness for economic opportunities associated with exploration and mining.

These studies require extensive consultations with a variety of groups and organizations within Indigenous communities themselves, including Elders, Councillors, Hunters and Trappers, and women's and youth organizations to determine what the community would like to achieve from participation in exploration and mining. The studies can also be extremely helpful in managing community expectations with respect to possible impacts and benefits of mineral development, particularly expectations around business and employment opportunities, job training, and expected revenue and royalty opportunities.

Research for this report has shown mining readiness strategies are more common among Ontario's Indigenous communities, likely a reflection of the fact that Ontario has consistently been one of the most active mineral exploration regions in Canada each year.

LAND USE PLANNING IN NORTHWESTERN ONTARIO – CAT LAKE FIRST NATION AND SLATE FALLS NATION



Together, in 2011, Cat Lake First Nation and Slate Falls Nation developed a Community Land Use plan to protect significant areas of their traditional territory to ensure the flourishing of traditional uses of the land while also providing for the communities to capitalize on the significant anticipated benefits of mineral development associated with promising greenstone belts within the region. This planning process allows the communities to participate in the selection of projects it wishes to support in certain areas, while avoiding conflict over projects in areas it wishes to protect (https://www.ontario.ca/page/cat-lake-and-slate-falls-first-nations-community-based-land-use-plan).

CAPACITY BUILDING WITHIN AN ECONOMIC DEVELOPMENT CORPORATION

Once an economic development corporation has been independently developed, depending on the level of experience of its executive director and managers, it may make sense to rely on external hires or consultants to ensure that the company is run responsibly, and, hopefully, profitably.

The experience of Windigo Ventures is instructive. In 2005, the Windigo Community Council (representing several northwestern Ontario First Nations, separated the "for profit" business arm from the Council's non-profit organization and established a board of directors for Windigo Ventures General Partner Ltd, which is itself responsible for three additional partnerships. Their first general manager established a number of policies to ensure sound financial practices within the organization and build governance capacity among board members and elected leaders.

Paul Gruner, then President & CEO Det'on Cho Corporation, the board-governed business arm of the Yellowknives Dene First Nation, active on many mining projects in NWT, interviewed for this study, noted the importance of relying on trained professionals to oversee key business operations and seek out joint venture partners. The ability to adopt sound financial oversight of the company, including development of a multi-year financial forecast and budget, can be very helpful in the company's efforts to access capital to pursue projects.

6.2 Governance

6.2.1 Board Structure

The Indigenous economic development corporations, exploration and mining companies, and other stakeholders interviewed for this study are keenly aware of the risks that are intrinsic to mineral exploration. Published literature, as well as this study's interview participants, are unanimous in the view that Indigenous economic development corporations and their subsidiaries must take steps to ensure that the corporation responsible for generating the community's share of profit from mineral exploration and mining is governed appropriately, and, as much as possible, remains free from interference by political leaders from within the community.

Typically, the standard of best practice is to establish an independent board of directors for the company, which may be appointed by a Chief and Council, Indigenous government, or Inuit Association (for example, the Nunatsiavut Government is the beneficiary of the Nunatsiavut Group of Companies, and governed by the Labrador Inuit Capital Strategy Trust). The board then operates at an arm's length from the political organization, works with the corporation's managers to approve strategy and partnerships, and reports at regular intervals to the community or group of communities who represent its shareholders, culminating in an annual meeting and publication of an audited financial statement.

Non-profit organizations like The Canadian Executive Services Organization (CESO) can assist communities and their economic development organizations to build capacity at the board and management level, improve decision-making abilities, and facilitate a community's ability to grow their businesses and create valuable partnerships.

6.2.2 Managerial Capacity

New companies may require the services of experienced professional advisors with appropriate designations – MBAs, Chartered Professional Accountants, or lawyers, for example - to support the corporation and oversee the development of feasibility studies and business plans around new opportunities in exploration and mining, and ensure sound financial management of the corporation. This, in turn, can assist in obtaining loans and government grants to support economic development initiatives.[11]

Sound legal, tax and financial advice is also required to avoid complications arising from poorly structured joint venture agreements and unscrupulous joint venture partners. Research for this study has shown that some Indigenous community economic development corporations are still bound by non-compete agreements in their exit clauses with former joint venture partners, years after the dissolution of the joint venture. These agreements have permanently impeded Indigenous development corporations from offering the services once provided by the joint venture.

KEY QUESTIONS THROUGHOUT THE EXPLORATION SEQUENCE

Economic and business development opportunities increase throughout the exploration sequence. The following questions can help communities and businesses develop strategies to participate in projects:

1. What exploration projects are operating on or near the community's traditional territory, and who are the proponents?

2. Is the project located in an area the community deems suitable for resource development?

3. What activities are planned for the project for the next 3-5 years and what is the projected budget?

4. Does the company have a community relations policy that guides its interactions with Indigenous communities? Does it show how the company will address the community's concerns?

5. What are the potential economic, environmental, and social benefits and impacts of the project?

6. What assets do community-owned businesses and other local Indigenous businesses possess that can be mobilized to support project activities?

7. Can the company help us locate suitable joint-venture partners to support our contribution to available contracting opportunities? Can the company or joint-venture partner help train a local workforce to fulfil contracts?

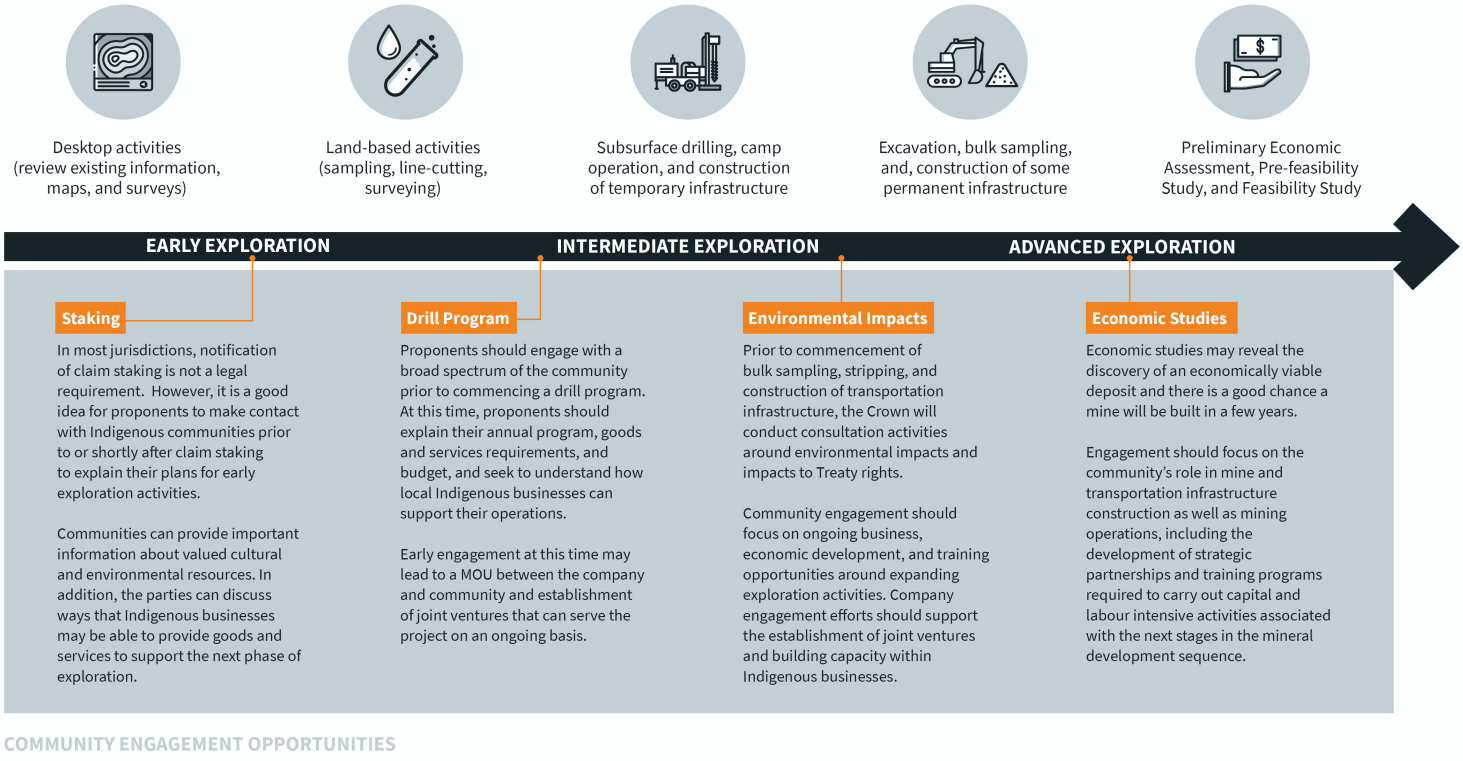
6.3 Community and Company Engagement Strategies

6.3.1 Early Engagement

Due to the short-term nature of the exploration funding cycle, any dollar that is not spent directly on exploration-related activities that can aid in discovery and evaluation of a deposit can theoretically jeopardize a company's effort to obtain funding for the following year. Many companies are therefore cautious in how they allocate time and money for community engagement. If communities are to take advantage of the limited economic opportunities associated with early exploration and lay the ground work for discussions around future economic opportunities with exploration companies they must develop strategies to proactively engage with companies to communicate their economic development aspirations around mineral development and identify meaningful ways to participate in projects. Communities should get a head start on early engagement upon receipt of notifications of exploration activities through governments or company communications, per existing regulatory requirements. They can also establish a community engagement protocol that asks anyone seeking to explore within their traditional territories to contact the community beforehand to discuss their proposed activities. Protocol terms can be made known on community websites, social media, and through other methods communities rely upon to communicate important news to the wider public. Figure 1 below illustrates when community-company engagement can benefit communities seeking to benefit from economic opportunities associated with exploration projects.

To facilitate direction to companies and prospectors, communities can provide proponents with general information about the boundaries of their traditional territories, including key townships or lots, without disclosing the location of valued community resources within traditional lands.

FIGURE 1. ENGAGEMENT OPPORTUNITIES ACROSS THE PROJECT CYCLE



SURVEY RESULT – EARLY ENGAGEMENT LEADS TO SUCCESS

Of the 19 mining and exploration companies who participated in our survey who engaged Indigenous community-owned businesses in the Early Exploration stage, 16 reported that they went on to procure many goods and service typically required during intermediate and advanced exploration from local Indigenous-owned businesses.

12 of those companies signed formal contracts to procure goods and services from Indigenous businesses (half of which were sole-sourced contracts) and 10 facilitated the establishment of Indigenous joint ventures to service the project.

In these cases, companies and communities took the time to work together to understand the needs of the project as well as the capacity of Indigenous businesses to respond to those needs across the whole range of the exploration sequence.

6.3.2 Learn About Projects

Communities need to know as much as possible about who is conducting exploration activities in their traditional territories and what types of activities are taking place.

Understanding the scale and budget of a project at the earliest possible moment is the best way to make sure that Indigenous businesses are able to plan to take advantage of economic opportunities down the line.

Industry representatives consulted for this study stressed the need for companies to keep communities well informed about project planning on an ongoing basis so they have time to plan to take advantage of those opportunities.

Furthermore, when discussing budgets with communities, companies that take the time to explain *how* their annual budgets will be spent in addition to the restrictions around Flow-Through Shares, Canadian Exploration Expenses, and Minimum Work requirements discussed above in Section 3.1.2 can help manage community expectations around the economic opportunities they can realize from the project.[12]

HELPING COMMUNITIES CAPITALISE ON OPPORTUNITIES – NEW GOLD, NUNA LOGISTICS

Daniel Kane, long-time community relations lead at Nuna, stresses the importance of meeting with communities to help them determine what kinds of equipment and machinery they have available that can be used on projects, and make sure that as much local equipment and as many skills as possible are used on the job site. Many community economic development corporations own several companies and limited partnerships. Exploration companies and joint venture partners should learn about the portfolio of businesses, and where possible, seek to involve them in the project.

New Gold, an intermediate-sized miner with two operating mines at Rainy River (Ontario) and New Afton (British Columbia), has developed a process to share the company's tenders with communities when those tenders are released. Then, the company's dedicated economic development lead works quickly with the community to determine whether the tender is a good fit in relation to community capacity.

6.4 Understanding Community Capacity

6.4.1 Establish and Inventory Community-Owned Assets and Skills

Communities hoping to participate in exploration projects, as well as other projects, should compile and regularly update a list of community assets, business registry of community-owned and other Indigenous businesses, and human resources database containing information about local skills that can be utilized when opportunities arise and when seeking out joint venture partners. This exercise can also help to identify strengths and weaknesses in their operational capacity, which can inform discussions around training and economic development benefits included in exploration agreements or IBAs. The creation and updating of these inventories can occur in

coordination with the creation and / or renewal of economic development strategic plans, which might occur every two to five years.

Likewise, exploration companies and joint venture partners serious about building capacity within Indigenous businesses should make every effort to understand the assets and skills a community brings to the table. They can also establish a database of private local Indigenous businesses that may have capacity to support their operations.

6.5 Building Strategic Alliances - Joint Ventures, Partnerships, and Other Collaborations

There are many ways that Indigenous community-owned businesses can meet economic development objectives in coordination with the mineral exploration industry. A strategic alliance with another, experienced business entity, whether Indigenous owned or not, is potentially one of the most effective means of doing so.

ADVANTAGES TO SELECTING INDIGENOUS SERVICE PROVIDERS – NA-CHO NYAK DUN DEVELOPMENT CORPORATION

Any company will bring a variety of strengths and weaknesses to their bid for an exploration contract. However, Indigenous-owned businesses, especially those operating within their traditional territories, bring a few things to the table that non-Indigenous competitors cannot.

Na-Cho Nyak Dun Development Corporation, the business arm of the First Nation of Na-Cho Nyak Dun near Whitehorse, offers a number of advantages to their joint venture partners that flow from its position as an Indigenous economic development corporation with ties to, and formal agreements with mineral firms, including:

- *Low-cost supplies and services, such as fuel, and food/catering through their other community-owned businesses, joint ventures, and strategic alliances*
- *Access to bid opportunities through IBAs*
- *Grant and financing opportunities available exclusively to majority-Indigenous-owned businesses or Indigenous community-owned businesses*
- *Offers to facilitate sole-sourced mining company contracts agreements with mineral development companies.*

For an Indigenous-owned business, a joint venture or partnership may be the only way to access the market for exploration service and supply. For some businesses, exploration projects may be too large and complex to mount a competitive bid. To mitigate against this barrier, a community may attempt to negotiate the breakdown of large contracts into smaller, more manageable components that it can bid on. In other cases, it makes sense to partner with larger, more experienced companies to make use of their expertise and capacity to bid on and carry out contracts. In some instances, it may be practical for two or more communities to form a strategic alliance to prepare a competitive bid.

There are several reasons why contractors, exploration companies, and Indigenous-owned businesses may seek out a joint venture. These include:

- Meet an exploration company's requirement that bidders for certain contracts be Indigenous-owned or employ a certain percentage of Indigenous workers
- Facilitate efforts to capitalize on additional contracting opportunities throughout a community's traditional territory, especially where the community has negotiated agreements with other exploration and mining companies

- Build social license to operate within the community (an Ernst and Young study notes that failure to acquire social license to operate is one of the top three risks facing metals and mining projects globally[13])

- Local Indigenous-owned business partners can bring valuable knowledge of the land, prior experience on the project, or a significant, useful capital asset, such as an airstrip or helicopter, which would be of use to the partnership

Not all strategic alliances are created equal, and community-owned businesses must give significant consideration to finding the right fit. This involves determining the most advantageous legal and tax structure and contractual language to define the relationship between the joint venture partners, and also determining whether the joint venture will assist to position the community-owned business for long-term success or merely achieve short-term goals.

It is possible, for example, to establish a joint venture without creating a single job. These are often referred to within the industry as “paper JV’s.” They exist solely as a revenue stream for a community economic development corporation and may not build capacity within the organization, provide access to the partner’s assets and resources, or facilitate the community’s entry into new markets. For communities with an extremely limited level of business capacity, the model may be suitable, at least in the short term. As research by the Atlantic Policy Congress of First Nations Chiefs has shown, in some cases, a joint venture such as this may be indicative of a non-Indigenous company seeking an Indigenous “figurehead” in order to exploit Treaty rights and programs designed to support Indigenous businesses.[14] Ideally, if only to avoid the potential for allegations of corruption, the partnership should be able to demonstrate that the Indigenous partner is delivering some value.

There are different ways to structure an Indigenous joint venture or partnership. Table 8 below lists some of the different options, as well as advantages and disadvantages.

TABLE 8: PARTNERSHIP STRUCTURES

Partnership Type	Unincorporated JV	Incorporated JV	Limited Partnership	Collaboration Agreement	Agency Agreement
Key Features	*Legal agreement defining the relationship between partners.*	*Legal agreement to establish a new, jointly-owned corporate entity, including board of directors*	*Legal agreement to establish a General partner and limited partner(s).*	*A formal agreement detailing the type and region of projects the partners will collaborate on.*	*Indigenous business is the lead proponent, and holds a side agreement with a contractor to perform some of the work*
Key Advantages	*Simplest, easiest, and cheapest way to set up a strategic alliance.* *Allows greater flexibility for the partners to define the relationship.*	*A good option where the mutual objectives of the partners are not fully aligned, as disagreements may largely be addressed by corporate laws*	*Liability is limited to the contributed capital of the general partners.* *Offers flexibility similar to that of an unincorporated joint venture and is relatively advantageous from a taxation perspective.*	*Allows maximum flexibility in that it does not have to address the dissolution of the partnership. Parties are free to exit at any time.*	*Reduces legal and accounting costs for both partners.*
Key Disadvantages	*One partner is exposed to liability if the other declares bankruptcy.*	*Less advantageous from a taxation perspective.*	*This is the most complicated and expensive arrangement to set up.*	*May not necessarily meet procurement standards set out in exploration agreements or IBAs around hiring majority Indigenous-owned businesses.*	*Indigenous-owned business is exposed to reputational or financial risk if the contractor is unable or unwilling to perform agreed upon work*

6.6 Exploration Agreements

Early stage agreements like MOUs and later stage Exploration Agreements, Protection Agreements, and in post development decisions, Impact and Benefits Agreements are among the various types of negotiated agreements. They establish, to some degree or another, the principles upon which an exploration or mining company and an Indigenous community (or group of communities) agree to work together to support a project. While agreements that cover the exploration stage of the mineral development sequence do not typically provide a source of direct revenues for communities, they are important for setting out the economic opportunities the project will make available for Indigenous communities and businesses.

Some agreements, especially those reached in the earliest stages of the exploration sequence, such as a Memorandum of Agreement, may contain vague language to the effect that the parties will work together to mutual advantage to advance the project, protect the environment, and support the community's desire to participate in economic opportunities arising from the project. Some agreements may be more detailed, laying out specific responsibilities and establishing precisely the obligations of the company to provide benefits and economic opportunities, including provisions around bidding for contracts and employment targets.

SURVEY RESULT - FACILITATING COMMUNITY ECONOMIC DEVELOPMENT THROUGH EXPLORATION AGREEMENTS AND IBAS

Exploration agreements can establish the process by which a company and community can identify economic opportunities associated with the project. One survey respondent whose exploration company operates in Quebec and Ontario describes the process contained within one of their IBAs:

> ***"Yearly, the IBA joint-committee determines a list of potential contracts that Indigenous contractors can bid on. The Indigenous contractor is provided with an advance opportunity to bid. The company reserves the right to bid externally if the contractor does not submit a bid in a timely fashion or if the bid is too high or improperly scoped."***[15]

This company procured a variety of services, including core cutting, diamond drilling, camp services, and road a brush crews from local indigenous-owned.

Thus, while the IBA does not contain a straightforward commitment to award bids to Indigenous contractors, it is nevertheless an effective means of ensuring that Indigenous businesses are made aware of potential contracting opportunities and given the opportunity to prepare a serious bid.

It is important to note that any provision to facilitate contracting opportunities for Indigenous businesses should be monitored rigorously to make sure that a genuine effort is put forward by the company to ensure that Indigenous businesses have the ability to prepare a successful bid, including the time to possibly establish the required relationships and strategic partnerships to execute the work contemplated in the RFP. One Chief interviewed for the study noted that, often, a company will issue an RFP with a response time so short as to preclude a serious bid by community-owned companies.[16]

Paul Gruner, CEO of Det'on Cho Corporation, suggests that communities looking to establish an exploration agreement with mining companies can look to past successes with negotiated agreements to initiate the process. Language and provisions from a previous benefit agreement with another proponent that was successful in helping to meet the community's economic development, social, and environmental objectives can be a good starting point.[17]

TABLE 9: EXPLORATION AND OTHER AGREEMENTS BETWEEN INDIGENOUS COMMUNITIES AND COMPANIES (FOR EXPLORATION-STAGE PROJECTS ONLY) (2016)*

Agreement Type	BC	AB	SK	MB	ON	QC	NB	NL	YT	NT	NU
Exploration Agreement	7	1	4	2	33	3	-	2	5	3	5
Impact & Benefits Agreement	2	-	3	-	1	2	-	1			
Cooperation Agreement	3	-	1	-	-	3	2	-	1	1	
Memorandum of Understanding	11	-	3	4	45	4	-	-	3	2	4
*Other***	20	3	5	1	12	8	1	-	8	5	3
Total	***43***	***4***	***16***	***7***	***91***	***20***	***3***	***3***	***17***	***11***	***12***

** Numbers are approximate, based on NRCan research*
***Includes Letter of Intent, Surface Lease Agreement (SK), Socio Economic Agreement*

TABLE 10: SELECTED COLLEGE PROGRAMS THAT SUPPORT ENTRY INTO EXPLORATION TRADES

Jurisdiction	Program
BC	*British Columbia Institute of Technology (BCIT), School of Construction & the Environment* *Mining and Mineral Exploration Program, Core Training Services* *Coast Mountain College* *School of Exploration and Mining (SEM)* *Coast Mountain College* *Applied Earth & Environmental Studies*
SK	*Saskatchewan Indian Institute of Technologies (SIIT)* *Mining Industry Pre-Employment Program Certificates*
ON	*Northern College Mining Programs* *Diamond Driller Assistant Common Core Program*
QC	*Centre de formation professionale Val-d'Or* *National Mining Centre Programs* *Diamond Drilling and Drilling & Blasting Program*
NB	*Joint Economic Development Initiative* *Minerals Processing Operation & Introduction to Trades Programs* *Government of New Brunswick, Department of Energy & Resource Development First Nations Prospecting Course*
NT	*Mine Training Society* *Drilling, Prospecting, and Geoscience Field Assistance*
NU	*Nunavut Arctic College* *Apprenticeship Programs*

6.7 Training

For Indigenous businesses seeking to establish themselves as a long-term presence in the local or regional exploration sector, finding and training a workforce to fill positions as they become available is a significant challenge.

Within a given community, there may be enough people of working age with the experience required to carry out the necessary duties in construction, earth moving, transportation / logistics, or even specialized tasks such as drilling, required by the project. In some communities, essential skills levels (basic literacy and numeracy) among the working-age population may be low, or an economic development corporation with aspirations to bid on exploration contracts may have an incomplete understanding of skill levels within the community, making it difficult to assess their ability to participate in opportunities.

Communities can take steps to fill gaps in both essential skills and project-specific skills, either by building training opportunities into exploration agreements or working directly with proponents to identify training needs and coordinate with ISET agreement-holders to design training programs. Mining companies often embed dedicated personnel within communities to ensure ongoing "hands-on" training of community members for direct employment. On large-scale advanced exploration projects, joint venture partners can deliver considerable on-the job training to interested Indigenous workers.

For some communities, existing programs offered by regional community colleges can be integrated into training programs for Indigenous businesses seeking to expand their focus to include exploration projects. Research undertaken for this study suggests that exploration companies are not well-aware of the government training dollars available to train Indigenous workers. Community-owned businesses should endeavour to educate proponents about federal training funds in discussions with proponents and joint venture partners to facilitate training into agreements.

6.8 Financing

The establishment of sound financial practices and management of long-term assets and debt is needed to acquire financing to establish new businesses and grow existing businesses to meet the needs of the sector. As discussed above, this can be accomplished through the hiring of experienced professionals to lead economic development corporations. Occasionally this gap can be met with a well-structured joint venture agreement that will help grow the business.

Indigenous-owned businesses can also access a variety of government grants and loans designed to assist both planning costs and capital costs.

Table 11 below lists long-standing grant programs designed to support the development of Indigenous businesses. Previous research by PDAC has identified these programs as having applicability to Indigenous business participation in the mineral development projects.

TABLE 11: ECONOMIC DEVELOPMENT GRANTS FOR INDIGENOUS COMMUNITIES & BUSINESSES

Jurisdiction	Program
National	*Crown-Indigenous Relations & Northern Development Canada (CIRNAC)* *Community Opportunity Readiness Program and Lands and Economic Services Program*
BC	*New Relationship Trust* *First Citizens Fund* *Aboriginal Business Loan Program* *Northern Development Initiative Trust*
AB	*Ministry of Indigenous Relations Aboriginal Economic Partnership Program and Aboriginal Business Investment Fund* *Ministry of Economic Development & Trade* *Community Regional Economic Support Program (CARES)*
SK	*Ministry of Government Relations, First Nations and Métis Community Engagement Project Fund* *Saskatchewan Indian Equity Foundation, SIEF Contribution Program*
MB	*First Peoples Economic Growth Fund*
ON	*Ministry of Energy, Mines & Northern Development (EMND)* *Northern Community Investment Readiness (NCIR) Initiative* *Northern Ontario Heritage Fund Corporation (NOHFC), Community Capacity Building Program* *Federal Economic Development Initiative for Northern Ontario (FedNor), Northern Ontario Development Program* *Ministry of Indigenous Affairs, Indigenous Economic Development Fund - Economic Diversification Grant and Indigenous Community Capital Grants Program*
QC	*Government of Quebec, Secrétariat aux affaires autochtones, Aboriginal Initiatives Fund: Economic Development Program*
NS	*Aboriginal Community Development Fund*
YT	*Yukon Regional Economic Development Fund*
Territories	*Canadian Northern Economic Development Agency (CanNor), Northern Aboriginal Economic Opportunities Program (NAEOP)*

BUILDING VALUE THROUGH SOCIAL LICENSE: GOLDEN PREDATOR & KASKA NATION ELDERS IN RESIDENCE PROGRAM

Golden Predator is dedicated to building social license to operate at its Yukon project sites.

At its 3 Aces site, Golden Predator engaged in environmental baseline sampling well before it was required to do so by regulation in order to see how and whether communities could participate in the project, including incubating local Indigenous entrepreneurs to participate in environmental monitoring tasks typically done in-house or outsourced to outside technicians and consultants.

Golden Predator also engaged a wide variety of community advisory groups, including Elders, as a way to engage the community and obtain a broad base of support for its project, by collaborating with Kaska community members to create an "Elders in Residence Program" that brought Elders to live at the site to learn about the project, help the company understand the local environment, and aid in the company's effort to employ and retain Kaska workers.

When in 2020 Seabridge announced its purchase of the 3 Aces Property, company Chairman and CEO, Rudi Fronk, noted, "Golden Predator has done an excellent job of demonstrating the exploration potential at 3 Aces, confirming the project's metallurgy and establishing excellent relationships with local First Nations and communities."[18]

The Elders in Residence Program remains a unique example of a far-reaching initiative to build mutual understanding between companies and communities.

Elders in Residence planning session

7 Variations Across and Within Jurisdictions

To determine why some Indigenous communities have been able to turn exploration and mining projects to their economic advantage while others have not is no easy task. This study offers some preliminary observations.

Within each province and territory can be found successful and unsuccessful attempts to capitalise on economic opportunities. For example, in Quebec, many Cree and Inuit communities and businesses have successfully reaped the economic benefits of exploration and mining projects and established early exploration projects led by Cree prospectors. On the other hand, Innu communities (along the North Shore), in spite of the decades' old presence of iron ore mining and associated port facilities, have not yet developed sustainable operations in exploration or mining service and supply to a similar degree.

7.1 Ownership of Lands & Resources

Desktop research undertaken for this study suggests that whether a community owns the land or the mineral resource (subsurface rights), or are party to a political agreement such as the James Bay and Northern Quebec Agreement that gives them the ability to approve or reject projects, influences the degree to which a community can exert bargaining strength in negotiations with exploration and mining firms.[19] In Eeyou Istchee, where Crees have the ability to refuse an exploration or mining project, Cree communities are well-placed to choose the projects they wish to support.

The degree to which land title has been established can affect a community's ability to serve projects and attract investment in exploration. This dynamic varies significantly from one jurisdiction to another. The relative clarity of land claims in Nunavut may account for the success Inuit-owned businesses have had in capitalising on investment in exploration and mining. Again, communities in Yukon and Northwest Territories operating without a treaty or land claim agreement have been able to find considerable success providing services to exploration projects.

7.2 Legacy of Mining

Research indicates that in some areas of the country, irrespective of jurisdiction, the legacy of past exploration and mining projects is important in predicting a community's level of participation in projects. One study respondent suggested the history of Indigenous-industry relations in the North Shore region of Quebec is characterized by lack of trust, based on many years of unenforced IBA provisions on the part of companies and communities.[20] In addition, communities in the region are resentful of what they allege is a history of environmental degradation and forced relocation brought upon their communities by the iron mining industry.[21] Similarly, communities in Yukon, where mining has

a long and in some cases problematic history, approach mining projects with varying degrees of hesitation, and in some cases, mistrust.

7.3 Size of Exploration Companies

It is likely the relative size of proponents and the commodities involved is at least as influential in predicting the ability of a community to establish successful businesses around exploration and mining projects. Well-financed major and intermediate-range proponents are better placed to dedicate the resources to helping communities align their capacity with the needs of their projects.

7.4 Level of Mineral Development Activity

The most significant variable is the degree to which communities and Indigenous owned business already participate in exploration projects, and, more importantly, mining. Those businesses that already participate in mining-focused activities may already possess a well-trained workforce, necessary equipment, and supporting joint ventures that can be easily deployed to take advantage of short-term exploration opportunities. In other words, these businesses are well-placed to take advantage of projects of various scales and lifespans and can respond adeptly to future discoveries.

More often than not, the proximity and role played in an existing long-term resource development project is the best indicator of a community's readiness to participate in future projects.

8 Recommendations

In light of the challenges facing Indigenous businesses identified in Section 5 above, the following are several steps that governments and industry can take to improve the likelihood that Indigenous businesses can succeed in opportunities associated with mineral development:

1. ***Build Governance Capacity within Indigenous Businesses***
   Federal and provincial governments currently provide funds to Indigenous communities to build consultation capacity, train workers, and assist in the establishment and growth of Indigenous businesses. Both levels of government should invest in funds that can deliver capacity-building programs to Indigenous communities to build and maintain appropriate governance structures around community-owned businesses and development corporations and strategic partnerships.

2. ***Support Land Use Planning and Traditional Use Studies***
   Governments that have not already done so should provide Indigenous communities with funding to develop land use plans and undertake land use studies, including mapping of valued community resources to support community planning around resource development. This funding can help prepare communities to decide where / when they are best able to support and participate in projects. Funding should also support multi-community planning efforts around regional development in areas with proven mineral resources and potential for development of shared infrastructure.

3. ***Study Industry Standards to Review Strategic Partnership Agreements***
   Industry groups, including PDAC, the Mining Association of Canada, and provincial and territorial prospectors and mining associations should work with Indigenous organizations to study existing standards in jurisdictions such as Nunavut for reviewing Indigenous joint venture agreements (and other strategic partnerships) to ensure they contribute to Indigenous community capacity-building objectives. Study findings can be used to assist companies and communities that lack existing policies or are developing new policies.

4. ***Build Capacity Around Improved Consultation and Engagement Within the Exploration Phase of the Mineral Development Sequence***
   Governments, industry, and communities should respond to the Canadian Minerals and Metals Plan's recommendation to develop capacity-building programs that support Indigenous participation in the mineral development industry. Support may include development of toolkits that combine existing regulations and existing best practices and standards to improve early engagement efforts and Indigenous community and business efforts to participate in exploration through building awareness of projects, strategic partnerships, and coordination with Tribal Councils and other community affiliations.

5. ***Support Indigenous Prospecting Initiatives in Remote Regions***
Emulating the Québec's support for the Cree Mineral Exploration Board and Nunavik Exploration Fund, governments should provide funding to Indigenous governments and organizations, including Indigenous Governments, Tribal Councils, Métis Councils, and Inuit Associations to raise awareness of early exploration opportunities and encourage local prospecting in remote regions in order to attract investment.

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