

IMPACT ECONOMICS

# Final Report

for Indigenous and Northern Affairs Canada (NWT)

## Investigation of the Underlying Challenges in the NWT Economy

There is growing acceptance throughout the NWT that the economy is in some degree of trouble. There remains some hope in the form of mine expansions and new albeit small mining projects, but when considering realistic scenarios 5, 10, and 15 years into the future, even the best case represents an economic decline from where the territory is today.

There are already a number of exercises underway that are trying to predict the territory's future and where growth might occur. What is not being studied, however, is perhaps the most important consideration of all, and that is "How did the territory get itself into this predicament in the first place. And, what needs to change if a similar fate is to be avoided in the future?"

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# Introduction

The NWT has failed to nurture the growth and development of its economy, and as a result, the territory will experience a major setback where the disadvantaged among us will suffer the most.

The cumulative effects of a weakening economy will cause some people to evaluate their residency. The people who want to relocate elsewhere and who have the financial means to do so will leave. The NWT Bureau of Statistics (the Bureau) has estimated in a status quo economy, where there are no major growth opportunities over the next decade, the population decline could reach 3,200.<sup>1</sup>

For the population that remains, the new equilibrium will be one with lower labour demand and less personal disposable income. This will trickle down to the business community that will see a drop in consumer spending, forcing a reduction in the quality and quantity of goods and services available locally.

Stability within the NWT economy has always been dependent on government and its spending. Should the population decline as predicted in a status quo scenario, it will result in a reduction of transfers from the federal government that will combine with lower own-source revenues as a result of the weakened economy. The Bureau has predicted the GNWT will suffer a net loss of \$162 million in this scenario. With less coming in, there will be less going out.

The people most negatively effected in this scenario will be those without the freedom of choice, who don't have the option to relocate, are unable to retrain or find new work in their community, and don't have a savings account to see them through hard times. The population that is today the most dependent on government for the necessities of life will endure the most hardship.

In a best-case scenario—where actions taken today mitigate a portion of the effects of the pending economic slowdown—all of the negative effects stated above will still happen. The territory will still endure the effects of a smaller economy, loss of jobs, out migration, and reduced government spending. The only difference is in the scale of these effects. And, it must be emphasized, this best-case scenario where the negative effects are partially mitigated is not the territory's current path.

What to do? Where to invest? The answers to both questions have been known, at least in a general sense, for over 20 years and have been discussed and debated and discussed some more. Improving access to the territory's marketable assets through transportation infrastructure, lowering business costs through such things as power generation and transmission, creating greater stability and clarity within governance and regulatory regimes, and most critically, establishing clear and meaningful vision for the territory that can become the basis for purpose-driven investments and action; the challenge has never been what or where, it has been how and why. How can the territory's numerous stakeholders and competing interests work together to enable the creation of a vibrant economy from which everyone can benefit? Why has the territory collectively failed so badly in this regard?

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<sup>1</sup> Government of the Northwest Territories (2018). *2018 Economic Symposium: Northern Strengths, Northern Prosperity*. Appendix G: Economic Status Quo Scenario: Impacts of Potential Closures of the NWT Diamond Mines. Developed by the NWT Bureau of Statistics. October 2018.

The purpose of this paper is to investigate these questions. How can the territory form some measure of consensus on its future and why has the territory not been able to secure a better future after 20 years of growth and stability?

## Approach

There are a different ways to approach the pending crisis and address the questions posed in the Introduction.

Last October, the Government of the Northwest Territories held a meeting of political and Indigenous leaders to discuss the economic challenges. Their discussions were based on investigative research into barriers to development, challenges with the diversity of opinion, and what it described as the moral dilemma in choosing between industrial growth and conservation.

In December, the Denendeh Development Corporation hosted the second of two meetings of territorial Aboriginal leaders to discuss the economic crisis and potential investment opportunities that would mitigate the pending economic decline while simultaneously increasing the Indigenous stake in the economy.

These efforts are good first steps, though an honest assessment reveals the economy's trajectory has been reported for years. In thinking about this complacency, the persistent question remains "why". Why has the territory failed in the care of its future? Perhaps it doesn't matter. The territory is where it is, and it is imperative that something be done about it. The flaw in this reasoning is that it risks we learn nothing from the past, relying on temporary solutions, and risking that future generations face the same challenges over and over again.

This discussion paper dives into this issue of why the territory has not done a better job of preserving and promoting its economic vitality. Rather than expressing an opinion or presenting economic theory on the merits of economic growth and development, the approach taken is one of discovery. In the first chapter, the recent history of economic events and what is known of the future are presented alongside some telling statistical evidence. This chronology should convince most readers that the territory probably should have raised the red flag earlier than it did regarding the future of its economy. It also reveals the magnitude of the crisis and adds further urgency to the subject.

If studying history is not enough, the second chapter takes a look at how money enters the economy and where it goes from there. An example of a small NWT community is used as a demonstration tool that can be seen as a microcosm of the territory's larger challenges. The point of this discussion is to provide a basic understanding of the NWT economy and its limitations. It brings forth this idea of the dilemma we face in choosing a growth path and the consequences of doing nothing, whether by choice or not.

The third chapter looks at some areas of potential growth, with the focus being on important questions that need answers. This is not a sectoral analysis of the NWT economy. Others are doing that work. The chapter is meant as a way to provoke discussion around decision-making and the need for action. In truth, this chapter doesn't present anything new, but it can help bring some reality to the discoveries made in the previous chapters.

The final chapter returns to the paper's original questions and presents more materials that the reader likely already knows. That is, what can the territory do? Where should it invest? The value added to this is what has been learned through discovery. There is a growth imperative in the NWT and there are consequences if this is ignored. The

territory needs an identity formed through a clear vision for its future that will guide its growth and development well into the future. But most of all, it needs people to recognize this vision is what's missing and the territory cannot secure long-term, sustainable growth and development without it.

## NWT's Economic Growth Path

A review of economic events over the last two decades and a look forward to what is expected in the near future will help position the discussion. We pick up the story in 1999.<sup>2</sup> Nunavut is no longer a part of the Northwest Territories, gold mining is on its last legs, but diamonds have been discovered, and a new mine has just opened.

There are four distinct time periods along the NWT's economic growth path from 1999 to 2030 and beyond.

*The Recent Past*—a period from 1999 to 2008—defined by optimism, investment, transformation, and development.

*The Present*—a period that began in 2009 to present day—defined as a period of stability for some and stagnation and lost opportunities for others.

*The Immediate Future*—a period that begins now and will last 5 to 10 years—defined by the closure of Diavik and Gahcho Kué, questions regarding the future of Ekati and, critically, the response of NWT residents and governments to the weakening economy.

*The Distant Future*—a period that will begin as early as 2026 or perhaps as late as 2033—and that will be defined by when, what, where, why, and how the territory invests in this future over the next decade.

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<sup>2</sup> acknowledging that the region's economic history begins with the arrival of the first Indigenous peoples thousands of years earlier

## CHRONOLOGY OF MAJOR ECONOMIC EVENTS<sup>3</sup>

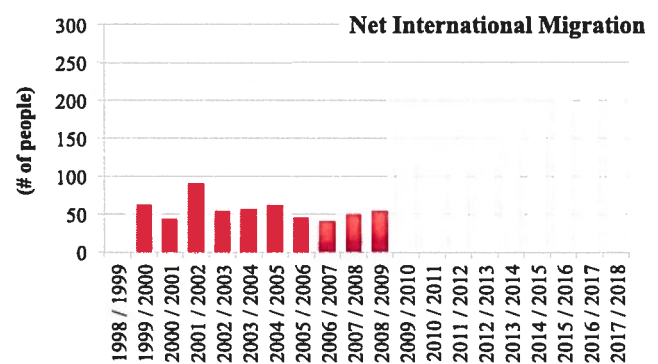
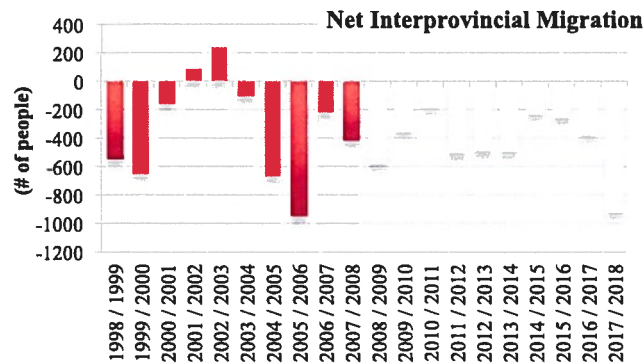
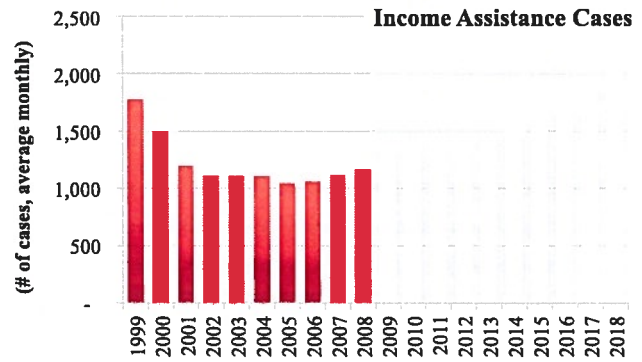
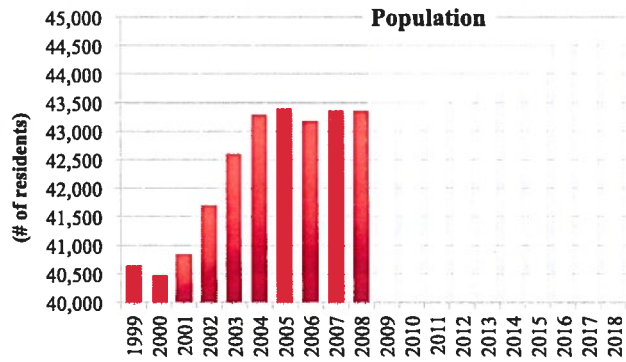
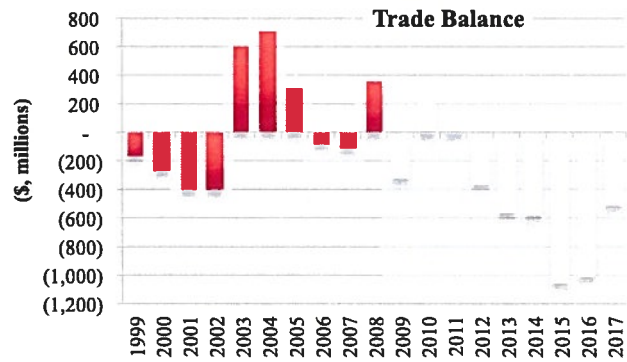
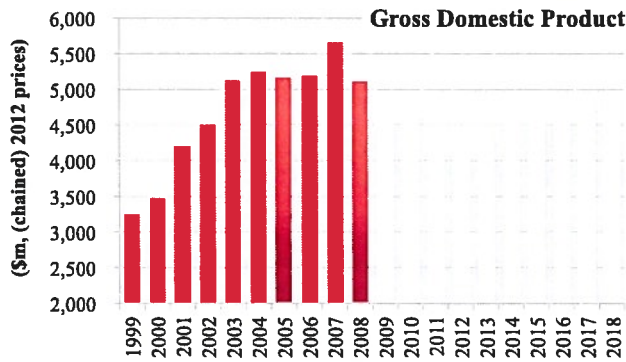
### Recent Past: A Decade of Optimism, Growth, Transformation, and Development (1999 to 2008)

- Ekati Mine opens in 1998 with its first full year of production in 1999. The first diamond mine in Canada.
- Interest in the Mackenzie Gas Project is growing. Natural gas reserve estimates are upwards of 1.9 trillion cubic feet of gas in the Mackenzie Delta and Beaufort Sea.
- Aboriginal Pipeline Group forms and in 2003 signs an agreement with TransCanada Corp. to take on one-third ownership of the future pipeline.
- Diavik Mine opens 2003, becoming Canada's second operating diamond mine.
- Net interprovincial migration is positive for two years in a row, in 2002 and again in 2003. Something that has never happened since.
- Gold mining comes to an end in the NWT, after 75 years of almost uninterrupted production, with the closures of Con and Giant mines in 2003 and 2004, respectively.
- Natural gas production peaks in the Dehcho region in 2003 at more than 120 million cubic meters, with oil production peaking in 2006 at 70,000 cubic meters (~1,200 barrels per day).
- The Environmental Assessment of the Mackenzie Gas Project starts in 2006
- British Petroleum and four other companies bid \$1.26 billion for exploration rights in the Beaufort Delta.
- Snap Lake Mine opens by the end of 2007 bringing the NWT economy to new heights when measured by GDP and employment.
- Advanced Exploration and/or Environmental Assessments are underway for mineral deposits in the Dehcho, Tlicho, and North Slave regions.
- By 2005, a concern emerges amongst some leaders and interest groups that the economy is growing too fast, that job growth has taken the territory beyond that natural rate of unemployment, and that benefits from any additional growth would be negligible or even negative. By 2007, this concern has morphed into calls for an end to the territory's economic expansion.
- One year later, in the fall of 2008, the world is thrown into its worst recession since the 1930s. NWT's decade of growth and transformation comes to an end.

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<sup>3</sup> The majority of events noted in the list of economic events are associated with the resource economy. There are other sectors in the NWT economy, however their contribution is small in comparison and have not had a transformative effect on the NWT in the way the resource economy has. Government's contributions are also left out of this list. As will be discussed later, the public sector's presence in the NWT economy provides it with a great deal of stability, but is not a means for long-term, sustainable economic growth. There were also significant political events that affected the NWT economy over this time period. The Tlicho Agreement and the Devolution Agreement are two good examples. Such changes to the governance structure are left out of the list in order to maintain focus on purely economic events.

**Relevant Statistical Data for the period 1999 to 2008**

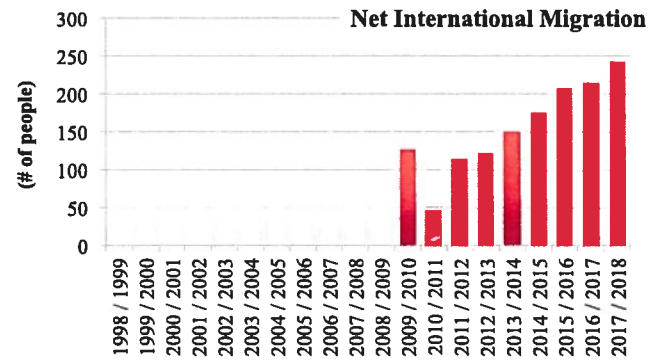
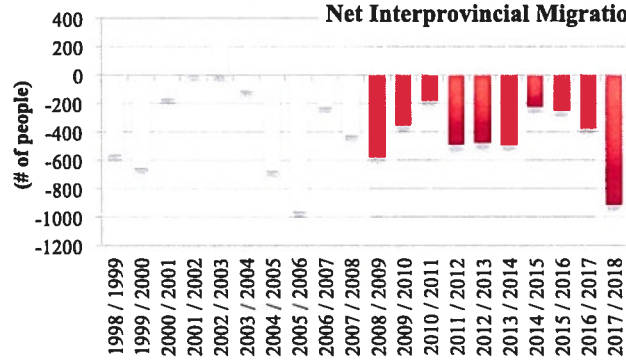
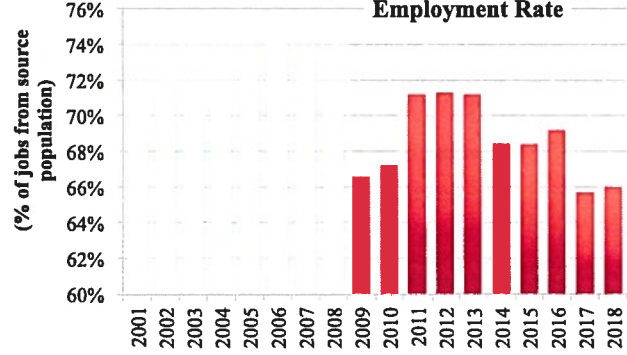
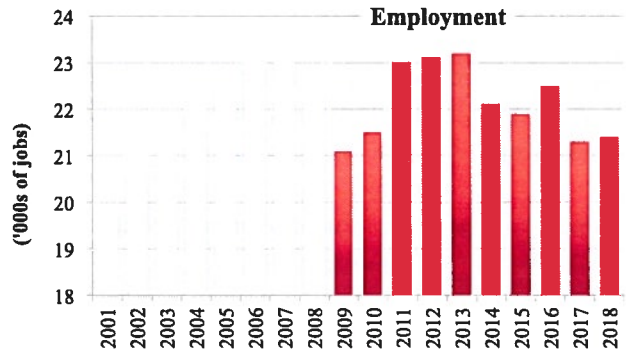
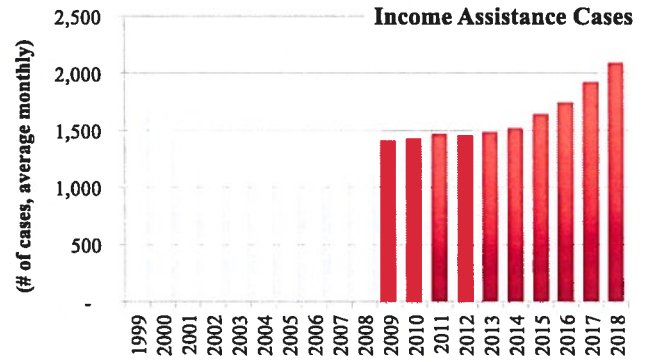
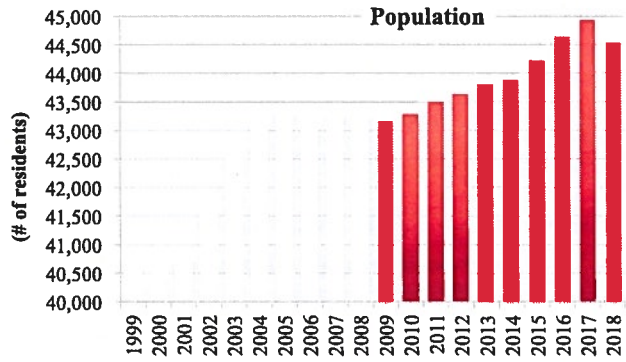
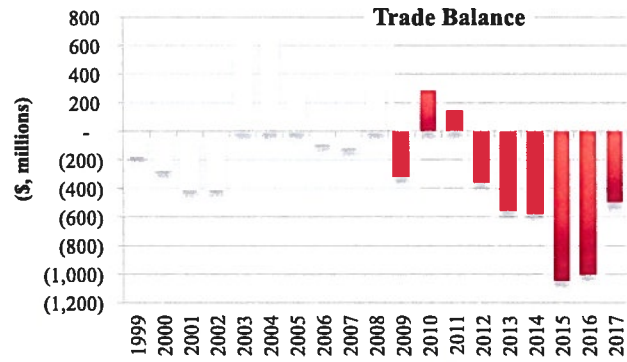
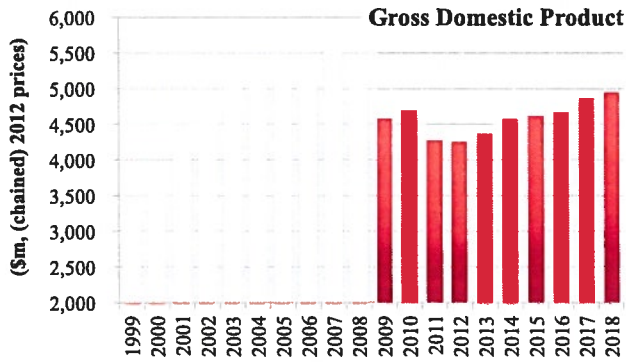


**Present: A Decade of Stability and a lot of “What Could Have Been” (2009 to 2018)**

- This period begins with the world emerging from its deep recession. Two of the territory’s three diamond mines had to halt operations because of weak global demand, but are once again fully operational.
- MGP receives regulatory approval in 2011, but speculation that the project will not proceed has become the consensus view. Estimates of the project’s costs have escalated from \$5 billion to \$16 billion and the price of natural gas has fallen from \$14 per mcf in 2006 to \$4 per mcf in 2010. The project has become too expensive, and the price of gas is too low.
- NICO, Prairie Creek, and Nechalacho mining projects receive regulatory approval though development is uncertain. Viability for all three projects depends on infrastructure, financial support from tightening capital markets, and higher commodity prices.
- Diamond mines have matured, though they are able to maintain high employment and production levels through the development of additional resources within their existing mine sites.
- The Sahtu oil reserves attract bids valued at \$627 million for exploration rights, and the region sees an increase in drilling and associated activities.
- The public begins to learn that Sahtu’s oil reserves are trapped in shale formations and will require multi-stage hydraulic fracturing methods for exploration and production. The public expresses concerns about this technology, but it likely doesn’t matter as the price of oil collapses for the second time in less than ten years, falling from \$100/barrel (WTI) to less than \$35/barrel in early 2016. These prices combined with the high cost of exploration bring all oil and gas exploration activity to an end.
- Oil and gas production comes to an end in the Dehcho region in 2015. There is no evidence suggesting this production will resume any time soon.
- Snap Lake Mine closes, but not before construction begins at Gahcho Kué Mine, that goes into production by the end of 2016. Gahcho Kué requires a smaller workforce than Snap Lake resulting in a net loss of about 200 full-time equivalent (FTE) jobs.
- Canadian North, Dominion Diamonds, and De Beers Canada move their head offices out of the territory.
- The owner of Ekati Mine, Dominion Diamonds, receives regulatory approval for developing its Jay Deposit. However, the company is sold to Washington Group, which takes a closer look at the project and slows its development in the face of a persistent lull in global diamond markets. The future of that project is currently unknown.
- Enbridge’s Line 21 shuts down near the end of 2016 causing a cessation of oil production at Normal Wells. In 2017, the NWT fails to produce a single barrel of oil.
- Signs of a stagnating and even weakening economy appear. The labour market is the weakest it’s been since the recession years. Income support cases start to rise. The waiting list for public housing starts to grow. There is evidence of growing food insecurity.
- Running counter to these worrying signs, the territory’s population expands after ten years of virtually no growth, largely as a result of international immigration.
- Meanwhile, net interprovincial migration approaches a record low, with more than 900 residents leaving the territory on net in 2017-18.



**Relevant Statistical Data for the period 2009 to 2018**



### **Immediate Future: No Time for Complacency (2019 to 2028)**

The future starts now for the territory. The economy needs a spark, but where will it come from, and can the territory be proactive in its pursuit? The question can't be answered just yet, but it is possible to look ahead at what is coming and how it will change the economic landscape of the territory.

The key economic events in the near future are well known and have already been introduced, but are worth summarizing here:

- Diavik will close in 2025—to be clear, Rio Tinto is making this closure a model for its world operations, there is no possibility of a mine extension—its 2017 contribution to the NWT economy includes approximately \$600 million in exports, \$350 million in GDP, and over 1,000 jobs when factoring direct, indirect, and induced effects.
- Gahcho Kué is expected to close in 2028—there is potential for an extension, though currently it is not expected—its 2017 contribution to the NWT economy is similar to Diavik's but with a smaller employment effect of approximately 600 FTE jobs when factoring direct, indirect, and induced effects.
- Ekati's future is uncertain. An absolute worst-case scenario would see it close within five years. An optimistic scenario has it open beyond 2030 with the development of Jay and other deposits. Ekati's 2017 contribution to the NWT economy is again similar to the other diamond mines in terms of GDP but contributes far more in terms of employment with over 1,800 FTE jobs when factoring direct, indirect, and induced effects.
- A positive change is the opening of the Tlicho All Season Road in five years. There is speculation that this will be a catalyst for the development of the NICO mine. There is no guarantee that development will take place. If it does, it is important to understand the scale of this project. The mine will create 223 direct FTE jobs in years one and two, and then 123 direct FTE jobs thereafter.
- Reclamation work at Giant Mine will ramp up. This project could bring much needed employment to the territory, though much of the work will require highly skilled labour. Other reclamation projects throughout the territory will be a source of job creation outside the North Slave.
- Tourism has undergone a major upswing over the last few years, with most expecting this to continue—largely to the benefit of the Yellowknife economy.
- Market signals regarding the development of Prairie Creek or Pine Point are not positive at the moment, though they remain opportunities.
- Much of the territory is looking increasingly to government at all levels to spend money in order to keep the economy afloat.

With no other significant changes, this outlook contains another five years of economic stability in the North Slave and little new activity elsewhere. History will define this 10-year period by how residents, government, and industry respond to the pending economic downturn.

### **Distant Future: The outcomes of our actions today (2029 and beyond)**

The state of the NWT economy after the existing diamond mines have closed is unknown. The NWT Bureau of Statistics used its Input-Output model of the NWT economy and its demographic model as part of an exercise to determine the implications of a status quo economic scenario; that is, an economic future that includes no new developments of any significance anywhere in the territory over the next 10 years. This work is highlighted by the following results:<sup>4</sup>

#### **ECONOMIC IMPACTS**

- The eventual closure of the diamond mines would shrink the NWT economy by about \$1.1 billion (23%).
- There would be a loss of approximately 3,300 jobs in the NWT. This would include 1,960 direct jobs at the diamond mines and an estimated 1,350 indirect jobs in industries like transportation, retail, and wholesale trade, construction, and various professional, scientific, and technical services.
- Non-resident workers fill about half of the direct employment at the diamond mines. However, total job losses for NWT residents would be approximately 2,300—10% of the territory's current total employment.
- While not everyone that loses their job will leave the NWT, it is estimated that out-migration would be approximately 3,200 residents. The loss of population of this magnitude would have additional impacts on the economy as the effect of lost household spending impacts retail businesses and other sectors.

#### **GNWT PROGRAM AND SERVICE IMPACTS**

- Diamond mines, businesses providing services to the industry, and their employees affect GNWT own-source revenues through personal and corporate income taxes, resource royalties, and fuel, property and payroll taxes. The residency of these employees and their families also affects Grant from the Government of Canada as part of Territorial Formula Financing arrangements.
- The impact of the closure of the diamond mines on GNWT revenues is estimated at approximately \$162 million annually. This represents about 10% of operational expenditures.
- This revenue reduction would have to be offset by reduced spending on programs or services for residents and/or reduced capital spending.
- It is not possible to know how a future government would manage the revenue reduction, for example it could be through program reductions, job cuts, or reducing infrastructure spending, or some combination of these options. However, it is likely that there would be job loss which could lead to additional population decline adding another round of negative economic, population and government revenue effects.

**This status quo scenario isn't the only plausible future for the territory. There are other paths. It is, however, the current trajectory and we can't pretend otherwise.**

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<sup>4</sup> These results are the work of the NWT Bureau of Statistics, published in the report *NWT Economic Symposium*, Appendix G and released in October 2018.

## Understanding the NWT Economy

Working through the list of events tells the story of NWT's economy. How it experienced unprecedented industrial growth and development that eventually gave way to a maturing economy, missed opportunities, and the onset of complacency and a stalemate regarding future growth and development. In just the last year or two, the reality of a potential economic crisis has become the dominant discussion point, ridding the territory of any lingering complacency. However, the polarizing debate over the territory's future and whether it should include resource development has remained. With no consensus on this point, the territory is at an impasse.

The debate has to end, and NWT society has to choose its path. The choice cannot be vague or random or be made without a full understanding of what the chosen path means for residents, their quality of life, and that of future generations.

It is important to listen to and consider the many ideas regarding the territory's future. From these many perspectives comes a clear definition of society's collective goals and aspirations. But a vision for the territory cannot be all things to all people. The territory needs an identity. It must be made clear what NWT society wants. And equally important, it must be made clear how the territory will get what it wants. In rather blunt terms:

- If it is to be an economy without resource extraction, then NWT leaders—meaning all leadership (government and non-government) at all levels (territorial and Indigenous)—must articulate this new identity and vision that includes its understanding of what will be gained and what will be lost. Leaders will have to communicate how communities and its residents will prosper in a smaller territorial economy with fewer people, less money, and more dependence on government. And, perhaps most important, leaders must provide the public with a plan as to how society will transition to this new economic environment.
- If it is to be an economy with resource extraction, then NWT leaders—all of them—must define what this looks like, what resources, where, and how. Leaders must prove to the public that they can and will work together, that it understands the benefits and costs, and that the territory is prepared to take on the risks associated with preserving its identity and promoting this vision. Leadership must show how a new phase of resource development can be made to benefit everyone; that is, how it can be transformative, similar to the growth in the Recent Past and not just a continuation of the current complacent approach to the status quo economy.

This debate will not be settled in this paper, but it can certainly be advanced through sound economic thought and discovery. First, it must be clarified that the debate is not on the merits of economic growth. That question was settled decades ago. In 1996, the United Nations' Development Program stated that economic growth is a means to promoting human development, which is the ultimate goal of society.<sup>5</sup>

The debate should *not* be centred on whether one is in favour of (economic) growth or against it. The question should be, are there policies that can promote what might be called *moral growth* [authors italics]—growth that is sustainable, that increases living standards not just today but for future generations as well, and that leads to a more tolerant, open society? Also, what can be done to ensure that the benefits of

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<sup>5</sup> United Nations Development Program (UNDP), *Human Development Report, 1996*. Page 1.

growth are shared equitably, creating a society with more social justice and solidarity rather than one with rifts and cleavages.<sup>6</sup>

Over the past 20 years, it has become a common understanding that we are not to grow the economy just for the sake of it and that success is measured by all of society's priorities including economic, financial, social, environmental, and cultural. We have also come to understand that economic growth is not the objective, but in the absence of a vibrant economy, sustainable development is virtually impossible.

## **UNDERSTANDING THE TERRITORY'S ECONOMIC DILEMMA**

Understanding the implications of these two distinct economic pathways is needed. The economy of a small NWT community is used to demonstrate these implications. This simplifies the discussion and avoids diving too deeply into economic theory and debate. And, in many ways, this sample community can be seen as a microcosm of the dilemma facing the territorial.

The example starts by assuming that the public sector is the primary contributor to this economy and that it has no exports.<sup>7</sup> Most jobs in the community can be attributed to this sector either directly or indirectly. The community includes the many different agents of government:

- Government administration of programs, policies, investments, etc. and staff (federal, territorial, municipal, and Indigenous),
- Education services including schools, teaching staff, and administration,
- Health and Social Services including nursing stations and other healthcare facilities and all staff,
- Public works that includes municipal infrastructure, services, and employees (roads, water, sewage, waste facilities, power stations, municipal administration).<sup>8</sup>

While most people would describe the community as a "government town", meaning government is the main source of employment, there is an active private-sector, but most businesses exist to service the public sector exclusively (or almost exclusively). For example, a private firm might be in business to build and maintain roads or construct buildings on behalf of government, or collect garbage on behalf of the municipality. They might have contracts to perform these services for other businesses or for residents, but without the government as their main client, the

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<sup>6</sup> Joseph Stiglitz, *The Ethical Economist*, Foreign Affairs, Volume 85, Number 6, November/December 2005.

<sup>7</sup> While a complete absence of exports is unrealistic, it is easier to understand the economics of a small community without understanding the complexities of trade. It is true that the export markets for most small NWT communities are very small and are largely based on public sector spending. Finally, it is important that the discussion isn't distracted by small simplifications. The NWT economy is not so unique that economic principals don't apply. Other economies around the world and throughout history have experienced an economic growth path similar to what the NWT is experiencing now, and, as a result, the lessons learned from these experiences are now embedded in modern economic thought that we can use in our learning process.

<sup>8</sup> It is understood that the majority of communities in the NWT do not function as tax-based municipal governments. However, for the purpose of this discussion, we can assume that the basic functions of municipal governments does take place in the community and therefore will refer to it as such.

majority of these businesses would not survive. In economics, these businesses are considered the indirect effect of government spending (sometimes referred to as the direct endogenous effect or the first round of indirect effects).<sup>9</sup>

There are also established businesses that exist to meet the consumer demand for goods and services of residents of the community, most of whom have earned their disposable income from working directly or indirectly in the public sector. These businesses include grocery, hardware, and/or clothing stores, gas stations and a variety of service-based businesses. In economics, these businesses and associated jobs are the induced effect of government spending.

Compared to most communities in Canada, the number and diversity of businesses in this sample community is small. All but a few of the goods being sold locally are imported. As a result, the money brought into the community by government, leaves the economy within a few transactions, and in cases where labour is imported, the money leaves immediately.

- The first transaction pays wages of resident labour and for contracted goods and services.
- Contractors pay wages to their employees and import goods and services needed to fulfill their contracts.
- Wage earners will purchase goods at a local store that were imported by the storeowner.
- Only a small amount of the money spent on retail goods remains to pay for the store's business costs including labour.

There is virtually no job growth in this community. The government, schools, and municipality are fully staffed, and even if the community were to grow in terms of population, it is unlikely that more public-sector jobs would be needed. In economics, this might be described as a productivity gap or the result of weak economies of scale, where an increase in demand can be met by increased productivity of existing labour rather than with additional labour.

Other socio-economic conditions include a high dependency ratio as a result of the demographic profile (meaning there is a relatively high number of children and/or seniors who are dependent on the income of adults who are available to work), a low graduation rates from high school, a large percentage of families living in public housing, and a general feeling in the community that food insecurity is on the rise. For most young people who are successful in completing high school, moving to a large city is the best option if they aspire to have a career with different choices of employers, want a greater array of consumer choices, or if they seek social diversity.

So far, this sample community is to some degree representative of many communities in the NWT. One could describe it as a residential and administrative centre similar to many communities in the NWT that were not formed for economic reasons or where the original economic purpose has disappeared or is no longer as important as it once was from an economic perspective.

In this small community, not much changes, the economy is incredibly stable with very little variation from year to year, and generally speaking, when asked, residents report they are happy, have a strong sense of belonging, and feel safe. But this doesn't mean the community is not without its problems. Looking below the surface, once finds that

- Not everyone who wants a job is employed, some people are underemployed, and many adults are simply not a part of the labour force. A larger number and greater variety of job options would allow more people

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<sup>9</sup> In the NWT, there is very little second round indirect effects, and virtually zero third round effects except in a few special cases.

to participate in the economy and thereby lower income inequality in the community. Furthermore, it is thought that the prospect of employment in the community might inspire children to stay in school.

- There is a desire within the community to improve the education system with a more interactive and relevant learning environment. This is believed to be the means to improving the quality of education and raising the graduation rates, and ultimately as a means to using local labour to fill jobs that are currently being filled by imported labour.
- The population is ageing and there is an interest in improving health care services, and in particular, making it possible for the elderly to remain in the community and age-in-place.
- There is a deep desire to reduce dependence on fossil fuels through more green energy options while also recognising the old diesel power plant requires significant repairs and should probably be replaced.
- As noted, there is evidence of poverty. There is also a shortage of adequate, affordable, and suitable housing. And more is needed to eradicate food insecurity. And,
- Public infrastructure is in a state of disrepair and crumbling in some cases despite annual expenditures directed toward upgrades and maintenance.

The solution to all of these challenges is quite obviously money. The community needs more of it—more money for public programs, more money for infrastructure, more money for families. But the only source of new money in this economy is government—with most coming from the territorial government. There are no other means or mechanisms to bring new money into the economy. Government introduces money through its operations and infrastructure projects but also through direct transfers to other levels of government and transfers to persons.

The problem is that the territorial government doesn't have more money to spend, is already trying to prioritize funding requests from 32 other communities, and has only a limited ability to generate its own revenues through increased taxation.

Most of the territorial government's revenues come from transfers from the federal government. The size of the transfer is determined by a formula that is based on the territorial government requirements to provide essential public services such as hospitals, schools, infrastructure, and social services, and includes adjustments that account for the high cost of providing those services in Canada's North as well as the challenges in providing services to a large number of small, isolated communities.<sup>10</sup> Nevertheless, the territorial government can still ask for more, and does so regularly. But the federal government has its own fiscal constraints, is currently operating in a deficit position, and is under pressure from every other community (big and small) in the country to increase funding, especially in expensive areas such as health transfers and infrastructure spending.

This situation raises the level of anxiety within the community. As stated, most residents are happy with their lives and that of their family and community and have no plans to leave, but they also recognize that they have little control over their economy and as a result little control over their prosperity or that of their children. And, while some measure of self-reliance and self-determination are fundamental to their vision for the community, the reality is quite the opposite, with the community becoming increasingly dependent on government. Whether the community's requests for money are directed toward the municipality, the local or regional Indigenous government, the territorial

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<sup>10</sup> Territorial Formula Financing, Department of Finance Canada. <https://www.fin.gc.ca/fedprov/tff-eng.asp>

government, or to the federal government, in all cases, the dependence puts a part of their future in the hands of others.

In addition to losing a degree of independence and raising anxiety within the community, relying solely on government money is not a means for communities to achieve their development goals. And in fact, there is plenty of evidence throughout the territory (as well as around the world and throughout history) that the opposite is true; that the pace of economic, social, and demographic change is disrupting communities and their happiness and government spending is unable to keep up with the pace of these changes.

What can the community do? If it is agreed that

- a) Governments' contribution to a community is most often only enough to maintain the status quo, and that,
- b) While there are times when this contribution increases through special initiatives or negotiations, that
- c) It will never be enough to be the catalyst for sustained development over the long term,

Then the community must look at other options to bring in the money it needs.

There are really only a few sources of new money regardless of the size or location of the community. One way is to keep the money that is entering the economy in the community longer. That is, increase the number of transactions that occur before the money leaves. Increased circulation would mean more benefits to the community from the money it has. The challenge is in identifying how to do this.

Increased circulation implies a larger domestic economy, which further implies economic growth, requiring the identification of excess or unfulfilled consumer demand. The size of the community and the amount of personal disposable income means there is little room for competition (that is, more businesses selling the same goods and services) and therefore new businesses must find new markets to exploit. One such market is in service industries that are currently imported because they are not available locally. A common challenge for community-based service providers is generating enough cash flow month-over-month, year-over-year to cover the cost of equipment and have enough left over for wages and/or profits. It can also be a challenge to find a local entrepreneur with the right professional, technical, and office skills to run a successful business.

With these challenges addressed, there is potential for a small increase in economic activity through import substitution and thereby increase the circulation of money in the community. But, growing the domestic economy inside a stable population with little excess personal disposable income will have, at best, a marginal effect on the community's development and there is likely to be numerous business failures if this approach is promoted without a accurate assessment of the marketplace.

A second way to increase the money flowing into the community is to grow the population. The Grant given to the territorial government is dependent on population, so more people means more government transfers. How can a community promote in-migration (or reduce out-migration)? One way is through job creation that would attract people in search of work. The challenge for many communities, though, is the lack of economic growth. Jobs are created when the economy needs more labour. Many community economies in the NWT are not growing and therefore are not creating jobs. So instead of attracting in-migration, communities are seeing people leave, resulting in less government spending, not more.



The next question then is how can a community grow its economy? This is a more complex question and the answers can imply that a trade off will have to be made and that there will winners and losers. Nevertheless, step one is to take a serious look at the marketable assets that could replace imports or be sold to buyers elsewhere. There is a lot to consider in this analysis. What is the value of these assets? What is the market potential? How big and/or competitive is the market? Can the assets be developed in a way that the community will benefit? How will benefits be measured?

If the community chooses to develop its marketable assets, it stands to enlarge its economy. A larger or more vibrant economy would attract private sector investments and create jobs directly in new industries and indirectly as businesses are established to provide these new industries and people with goods and services. Existing businesses would benefit from a rise in consumer demand. Importantly, should the growing economy attract labour from other jurisdictions, transfers from the federal government and spending by the territorial government would increase as would opportunities for own-source revenue generation.

It would seem this is a win-win-win solution for the community, business, and government in that everyone gets something they want. Recall a central tenet of society's goals related to human development; that economic growth is a means to an end and not an end onto itself. In this case, some of the end goals for the community include

- Improving the number and variety of employment opportunities
- Upgrades to education and health services
- Investments in infrastructure, including new green energy solutions, and
- More resources to help feed and shelter the poor.

Some of these end goals require the government has more money to spend while others requires more economic opportunities. In developing its economy, the community will require that appropriate rules and regulations are in place to direct the economy, that there is a clear system of measurement for the economic growth and for the development goals, and that there are opportunities for innovation and adaptation that preserves the positive relationship between economic growth and development.

We needn't go any further with this example of a small community. While somewhat simplistic, it demonstrates the implications of a community that is dependent on government spending for its general wellbeing and otherwise needs more economic activity if it wants to take more control over its own development.

How does the analysis change if the territory replaces the small community in this example? The answer is very little. The basic rules of economics still apply. If the territory wants greater control over its development, it must find a means to do so. This is where our discussion turns to in the next chapter. What are the territory's marketable assets? Can they be developed? And, how can the territory benefit?

## NWT's Future Economy: More questions than answers

We return our attention to the NWT economy and the path it is on. The status quo scenario described earlier will leave the NWT economy with virtually no exports in about 10 years—approximately 70% of the territory's exports are mineral resources (diamonds and oil). In addition to the predicted declines in GDP, population, and government revenues associated with this scenario, the territory is destined to become frighteningly similar to the example in the previous chapter where the economy and residents become increasingly dependent on government for its quality of life and where shortfalls in public programs directly affects wellbeing and happiness right across the territory.

Indeed, this fact is what sparked the current and ongoing discussions and debates over the future of the territory. Will it be one where its assets are developed as a means to create a vibrant economy that provides opportunities for a desirable quality of life? Or, will it be one that looks to develop only some assets and in doing so charts a new path toward a lower equilibrium based on new expectations for quality of life and new definitions of happiness?

Top 10 Exports in 2015, by dollar value			
	\$, millions	% of total (individual)	% of total (cumulative)
Total Goods and Services	2,907.5	100%	-
<b>Non-metallic minerals</b>	<b>1,738.2</b>	<b>60%</b>	<b>60%</b>
Transportation and related services	442.7	15%	75%
<b>Mineral fuels</b>	<b>214.1</b>	<b>7.4%</b>	<b>82%</b>
Wholesale margins and commissions	93.4	3.2%	86%
<b>Metal ores and concentrates</b>	<b>62.4</b>	<b>2.1%</b>	<b>88%</b>
Accommodation and food services	61.3	2.1%	90%
Administrative and support, head office, waste management	51.6	1.8%	92%
Professional services	44.0	1.5%	93%
Telecommunications	38.1	1.3%	94%
Other finance and insurance	35.9	1.2%	96%

As stated earlier, the territory and its leaders must understand the meaning and implications of both paths based on full information—some of which is provided in this paper—and then make a decision regarding the territory's identity and its future.

This chapter examines the questions associated with some of the growth options. This is not a sectoral review of the economy. Instead, the focus is on the questions surrounding the development of these assets, namely, oil and gas, minerals, energy, tourism, and renewable resources. Some common themes emerge including the hard reality that there is no simple solution to returning the territory to its previous growth path and that many of the territory's marketable assets face serious challenges in their development.<sup>11</sup>

<sup>11</sup> This section is developed from work completed by Impact Economics for the NWT Indigenous Leaders Forum held in December 2018.

## **OIL AND GAS DEVELOPMENT**

Fifteen years ago, the NWT was in the midst of an environmental assessment of the multi-billion dollar Mackenzie Gas Project. In hindsight, perhaps a more purposeful and expedient process would have been beneficial. We'll never know for sure. In the time it took the territory to complete this assessment, the world market for natural gas had changed. The project became too expensive and markets no longer wanted our gas, and so the project died.

More recently, the territory witnessed a renewed interest in oil exploration within the Sahtu region where an estimated 1 billion barrels lay beneath the ground. However, this interest quickly waned, the result of too many seemingly insurmountable challenges including a lack of infrastructure, extremely high cost of exploration, falling prices, and environmental concerns regarding multi-stage hydraulic fracturing and what to do with the natural gas that is trapped alongside the oil.

In between these two missed opportunities, the Dehcho region had a successful oil and gas industry for more than a decade. But it ended in 2015 and there are no signs that it will ever return. The price of oil is too low, and the cost of production is too high.

All of these reserves remain in place and could be developed in the future. But a lot must happen before it is practical to consider this a real opportunity. World demand would have to rise considerably, the Government of Canada would have to lift its moratorium on exploration in the Beaufort Sea, billions of dollars would be needed for infrastructure and exploration, and new technologies will be needed to extract resources safely.

1. As a territory, what have we learned from these past events, our engagement in regulatory assessments, and missed opportunities?
2. There remain vast reserves of oil and gas throughout the territory. Is there interest in their development or not? Perhaps more practically, is there any economic justification for these oil and gas developments? The world is trying to wean itself off oil. Is this the right time to begin exploration for oil in such remote locations?
3. There has been some discussion regarding natural gas development for community markets. What are the basic economics of these small-scale operations?

## **MINING SECTOR**

The NWT's mining industry is approaching a crossroads. The three operating mines, Ekati, Diavik, and Gahcho Kué, have collectively reached their peak production. The next five years will be marked a slow decline until the closure of Diavik in 2025, Gahcho Kué Mine in 2028, and Ekati sometime between 2023 and 2033. Collectively, these three mines employed 3,450 people in 2017, 835 of whom were Indigenous and residing in the NWT.

Meanwhile, there has been limited progress at other potential mine sites, including NICO, Prairie Creek, Pine Point, Kennady Lake, and TerraX. These deposits offer geographic and mineral diversity within the mining sector, representing four different regions and several minerals with their own global markets. Any of these projects would inject the economy with a much needed spark, but it cannot be overstated that each is relatively small when compared to what the economy is set to lose and each of these potential projects face one or more challenges linked to missing infrastructure, uncertain world demand, and a cautious investment climate.

1. Are there options available to prevent early closure of the existing mines? Or to extend the life of these mines? (e.g. tax incentives, investments in infrastructure, other)
2. Can the territory lower the risk (cost) of mining in the NWT?
3. Based on today's world economy, what confidence do we have regarding the potential mining projects throughout the territory? Can the territory influence or improve this confidence through action or investment? What gets priority? What are the criteria?
4. Are there exploration opportunities that could be promoted? Where are they? What is standing in their way?
5. How should NWT's governments, communities, and businesses prepare for the pending downturn that will include a reduction in revenues, jobs, transfers, and contracts?

## **ENERGY GENERATION**

One of the territory's greatest untapped economic assets is its energy potential. Estimates of the potential from the Mackenzie, Bear, and Talston Rivers exceed 11,000 mega-watts. Despite this mind-boggling number, the industry and its potential are not well understood, and a viable project has never been identified. In truth, it is not realistic to think the territory will ever tap into every last power opportunity along these three rivers, but there are many good reasons continue investigating this potential.

- The added power would improve the financial viability of industrial projects and attract investment.
- The construction project spans many years, generating economic benefits in areas of employment, training, and business growth.
- The revenue stream that follows is stable and spans generations.
- The workforce needed after construction is relatively small, but is very stable.
- Hydroelectric power generation is an area where Indigenous communities throughout Canada are becoming involved with many examples of success.
- And, importantly, the hydropower reduces our dependence on fossil fuels resulting in a smaller carbon footprint and a cleaner environment.

It is not uncommon to hear opposition to power generation that is rooted in what must be given up in terms of the loss of land. But what do communities stand to gain? Hydroelectric power generation is an area well suited for a broad Indigenous partnership approach due to its costs and complexities, but it requires economically feasible projects and high levels of cooperation and trust between partners.

There are other challenges.

- Hydroelectric power facilities are enormously expensive and incur substantial up-front investor risk;
- They require up to 10 years to develop, requiring substantial long-term planning and commitment;
- While eliminating diesel power is attractive, diesel plants will still be required to ensure a reliable backup power source (e.g. in the event of low water levels or ice build up); and,
- Negative impacts from controlling water flow are felt immediately, while the economic and environmental benefits accumulate over a long period of time.

1. Historically, there has been significant opposition to hydroelectric power facilities that cause flooding and disrupt traditional land uses. Has this view changed? Is hydropower an opportunity worth exploring? Or, is there simply no appetite for it?
2. There are opportunities apart from those mentioned, such as Tlicho's La Martre Falls project. What work has been done to advance these opportunities? What are the impediments to development?

## **TOURISM**

The tourism business has undergone a remarkable period of growth over the past five years with 112,500 visitors to the NWT in 2017-18 representing an increase of 19%. Most of this growth has come from leisure travel, with the biggest attraction being aurora viewing. In absolute terms, business travel is still the largest tourism segment in terms of visitors and total spending. Data are not available to determine the relative contribution of government business travel versus private-sector business travel.

It is estimated that tourist spending is now over \$200 million annually. This growth is on track to reach the target set by the GNWT in 2016 in its five-year tourism strategy. However, there remain several challenges associated with product development, marketing, licensing, transportation, expansion into new community markets, and statistics-based research.

The economics of tourism are difficult to measure because the industry encompasses several sectors including accommodation and food services, transportation, retail, and entertainment. There are other considerations when evaluating tourism. For example, it is an industry that creates a lot of jobs, but they are often part-time and/or seasonal and don't often pay well. In the case of the NWT's aurora viewing, labour is being imported from southern Canada and overseas to meet demand.

Similar to the resource industries, economic growth in tourism can be assessed by looking at how it growing and whether that growth can benefit the development goals of NWT residents.

1. What is the market potential in tourism?
2. How are benefits being distributed?
3. Can NWT residents benefit from future growth?
4. How much is being lost through direct leakage and/or non-resident operators?
5. What investments would help grow the industry and ensure this growth contributes to development in the territory?

## **RENEWABLE RESOURCES**

The NWT is rich in renewable resources. Forestry, fishing, and agriculture are sectors often described as means to a more diversified economy. However, our economy has not yet found a way to develop these areas sustainably. The reality of geographic remoteness, slow growth climate, and high cost environment are not easily overcome. In considering possible growth and diversification options through renewable resources, our discussion must be rooted in these facts. At present, according to data from Statistics Canada, the combined industries contribute \$23 million a year to economy or 0.5% of the GDP and 140 jobs. To say there is growth potential is 100% correct. But how much growth is possible?

Renewable resource sectors offer opportunities for small business startups and family-run enterprises. Across the territory, people are already participating in forestry, agriculture, and fishing—with much of this activity occurring outside the wage economy, where trees are harvested for firewood, food is grown in gardens or harvested off the land, and fishing is done to feed our families and dogs. These activities are also being done on a larger scale for commercial purposes. But an honest assessment shows that many of these businesses struggle with profitability—there are notable exceptions. And, in many cases, some measure of public support is required to help establish businesses and then keep them afloat at different times throughout their operational life cycle.

We have to be clear in our understanding about these areas of potential diversification. Communities often support these areas because investments are small and manageable, and would-be entrepreneurs are easy to find. However, success in these markets can be difficult. Demand is limited, and, because it is so easy to enter these markets, competition can be stiff. As a result, profits are often low, and the rate of business failure is high.

1. There are numerous opportunities to support small business in the renewable resource sector, and the GNWT has strategies for all of them. Are the current mechanisms for support effective? Or, is this support propping up unsustainable businesses while simultaneously crowding out sustainable enterprises?
2. Looking ahead five, ten, and twenty years, what is the potential for renewable resource industries in the NWT? What are the costs of development? How much could they contribute to economic growth and to development?

## What we have learned and what's next

In the first chapter, we learned that the territorial economy is in some measure of trouble. The NWT stands to suffer a significant downturn, largely as a result of its failure to nurture the future growth and development of its economy. The effects will be wide ranging. But perhaps most disturbing, residents who have not benefited from the decades of economic expansion and stability and who are today living without financial and social freedoms, are those who will suffer the most as a result of this failure.

To fully understand why, the second chapter introduced a small somewhat representative community in the NWT as a way to demonstrate how a simple economy functions in the context of the NWT. Communities that are primarily residential and administrative centers are largely dependent on government for their economic activity, job creation, and income. These economies can be incredibly stable, but when pressures emerge in the form of growing unemployment, widening infrastructure gaps, greater demand for public programs and spending, and an ageing population, the community finds it has no means to respond effectively without additional support from government. This can create high levels of stress and anxiety in communities having lost a degree of self-determination and independence.

There are elements of this example that look familiar to the realities in the NWT, especially when combined with the discoveries made in chapter one. Viewing the statistical evidence of the past decade alongside the predicted outcomes of a status quo economy suggests this growth scenario would leave the NWT in a very vulnerable position. Combine this discovery with what we have learned about the challenges faced by communities that are too reliant on government, and we can conclude that the progress the territory has made over the past decade towards its development goals will end, and, in all likelihood, will regress. Put simply, if the NWT cannot maintain the quality of life of residents today in a period of relative economic stability and on the heels of a decade of economic growth and transformation, how can it possibly achieve such a goal during a period of economic decline? The answer is it cannot. And so, if it was not well understood previously, it should be understood now that the NWT faces a true growth imperative.

The only question then is where can the economy grow? The third chapter introduces several sectors where growth might be possible. Most face significant barriers to development. In some cases, the hard truth is that the opportunity for development has passed and may never return. For those assets that still have a market value, and in particular the territory's oil, gas, and mineral resources, they collectively face a long list of challenges, most of which are well known to just about everyone in the territory and that have been subjects of debate for over 20 years. These include issues of:

- Access, largely associated with missing transportation infrastructure;
- Cost, which includes issues of access but also the need for cheaper and dependable power;
- Regulatory uncertainty, costs, and timelines;
- Lack of clarity surrounding the territory's system of governance;
- Unknown operating environment and expectations, which is largely related to the difference in values in the NWT when compared to a typical southern Canadian region;

There are other challenges such as global commodity prices, reluctant financial markets, NWT geography, and climate and climate change. These are all out of the control of the territory, but remain barriers to development and can mean that some of the territory's assets are too expensive to attract private sector investment.

In thinking about what comes next, we return to the question posed in the Introduction to this paper. Why has the territory not been able to secure a better future after 20 years of growth and stability? The evidence presented in chapter one is not new. The potential economic crisis and its consequences have been reported extensively in numerous venues for at least ten years as have the statistical results that are available publicly. The discoveries in chapter two hinge on a basic understanding of economics, public finance, the costs and benefits of trade, and the flow of money in the NWT's economy. Similarly, chapter three is merely demonstrating that the markets for the territory's assets change over time and we need to understand the implications of these changes. Furthermore, any opportunity for growth should undergo rigorous due diligence from an economic perspective and a development perspective.

So, if this evidence is largely known, why is it that we are so close to an economic crisis with no clear direction on how it will be addressed or how its consequences will be managed? The territory seems to have lost its identity in terms of its economy, or at the very least, this identity is being challenged. And, as a result, there is no consensus around a vision of the future. The territory's failure to nurture the growth and development of its economy is the result of this lack of identity and vision that leaves the territory without a clear set of priorities. In its place is a debate over the future growth path of the territory and whether it should include roads, resource development, hydroelectric power generation, tourism, forestry, agriculture, or fishing. At the moment, it would seem these are all equally important, regardless of their contribution to the growth or development of the territory.

As stated earlier, the debate has to end, and NWT has to choose its path. A vision for the territory cannot be all things to all people, but it must do its best to consider the quality of life aspirations of all of the territory's residents. The territory needs an identity. It must be clear on what NWT society wants and equally clear on how the territory will get what it wants.