2005 NUNAVUT ECONOMIC OUTLOOK

UPDATE ON FIVE YEARS OF PROGRESS



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FINAL REPORT

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Nunavut Economic Forum

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EXECUTIVE SUMMARY

Almost five years have passed since the original *Nunavut Economic Outlook* was commissioned providing the first overview of Nunavut's socio-economic environment. Today, much more is known of the young Territory's performance and potential. The unique demography of Nunavut is better understood. The territorial government has established its own policies and programs that are now influencing the growth of the Territory. There is better information on Nunavut's capital needs, especially as they relate to human development and infrastructure shortfalls. The mining sector has been reorganised under a new set of Nunavut-specific regulations and the commercial fishing industry has expanded into new management zones.

The Nunavut Economic Forum (NEF) requested an update of the original Outlook to learn more about the Territory's socio-economic progress over its first five years of existence and to consider the opportunities and challenges it will face from 2005 to 2020.

This report continues to employ the *Framework for Understanding Economic Development* that was established in the original *Nunavut Economic Outlook*. The framework was unique at the time, looking beyond conventional economic statistics to understand the progress of society. It set Nunavut's goal as the attainment of a high and sustainable quality of life, emphasising this could not be achieved solely through financial wealth. Instead, it recognised the need for safe and healthy communities, a clean environment and a multitude of productive choices. As such, a broad investment strategy was needed to expand wealth under this holistic definition. Investments in physical, human, organisational, and natural capital were required. This *2005 Update* of the *Nunavut Economic Outlook* is an investigation into the status of Nunavut's four forms of wealth-generating capital as described below and the impact of any recent changes on the Territory's growth.

Physical capital: There has been a healthy increase in infrastructure investments in recent years, particularly for schools and hospitals. There has also been a major expansion of broadband width to the Territory; access is now available to all Nunavummiut. However, the Government of Nunavut is struggling to maintain a level of public infrastructure to support rising demands, particularly housing and municipal services. Failure to address issues of public works and basic human needs such as housing carries the risk of a major social collapse in Nunavut. There is real concern that the progress made in terms of industrial growth will not result in widespread improvements in the quality of life for Nunavummiut if these social infrastructure issues are not addressed.

Human capital: Nunavut's human capital shows some signs of progress in a few areas but the process has been slow. The pace of these improvements will disappoint Nunavummiut and other observers, but this should not deter



anyone's resolve on this front. Serious issues exist with the health status and education of Nunavummiut, in particular for women and children. Meanwhile, some inroads have been made in raising the number of high school graduates, but significant work remains in raising the quality of education children receive. Now, with the private sector spurring on industrial growth, human capital development is that much more important for Nunavut to achieve broad success and to ensure Nunavummiut are able to participate in the new economic opportunities.

Natural capital: There is more data available on the status of Nunavut's natural capital. Pressures will intensify via climate change and expansion of economic activity. The population of most communities far exceeds the municipal infrastructure's ability to cope, and the implications of that could be serious for the environment. For example, Nunavut's sewage lagoons are now failing at a rate of 65 per cent due to overuse. Over the medium term, Nunavummiut will also need to take a more proactive approach to developing adaptation strategies to climate change including the use of energy conservation policies.

Organisational capital: Nunavut's level of organisational capital continues to grow. Many collaborative projects have taken place to solve common problems with some clear examples of success. However, debate still lies ahead on how the Territory best proceeds with its strategies for implementing action plans. Some compromise along with priority setting will be needed given the Territory's scarce financial and human resources.

Update on Nunavut's Mixed Economy

Nunavut's economy depends on both land-based activities such as hunting and fishing and the wage-based economy. The lack of data on the size and economic value of the land-based economy remains a challenge given its importance in Nunavut society. While it is difficult to quantify in monetary terms, one cannot overlook its meaning to the lives of many Nunavummiut as an important contributor to a high quality of life, providing a source of income, nutritious food, and a direct link to Inuit culture. The results of the Nunavut Wildlife Harvest Survey, with its detailed account of harvesting activities, should serve as the best available source of information on the land-based economy for the next several years.

Plenty is now known of Nunavut's wage-based economy. In fact, its performance has been quite strong, living up to expectations. Domestic demand of consumers, government and business has grown steadily over the past five years, averaging 6.3 per cent in real terms since 1999. While government is the dominant player in the domestic economy and will remain so over the forecast period, recent advances throughout the private sector will lessen this dominance. Led by the mining and construction industries, growth in business investments will result in more private-sector jobs, gains in personal income, and perhaps most important, greater diversification in the economy. It is also believed that pent-up demand in consumers will mean the growth in income will translate into strong consumer spending.



The challenge for Nunavut is to ensure that local people are the primary beneficiaries of these opportunities, testing whether the Territory has indeed prepared itself for this period of growth.

Renewed Economic Outlook for Nunavut

A revised forecast of Nunavut's real gross domestic product is provided based on the research and analysis conducted for this Update. The new forecast is dominated by advances in government activity and in mining. Construction, transportation, warehousing, retail trade and finance will all show strong growth as a result of the spending in these two areas.

This is a good story for Nunavut's economy. With growth coming from sectors other than government, the economy will be more diversified, offer labour more choice in employment, and lessen the Territory's dependence on federal transfers. The current forecast projects real GDP to grow by 5.6 per cent this year and on average 4.7 per cent over the next five years. Most important, Nunavummiut should be more involved in the production of this output and therefore improve their economic well-being.

Participation of Nunavummiut is the key to this forecast. Nunavummiut need to involve themselves in every aspect of the growing economy—whether through employment, ownership, or business opportunities. Every time Nunavummiut fail in this regard, the true impact of this forecast is reduced.

Emerging Challenges for Nunavut's Consideration

This Update also raised awareness of some challenges that have been identified through the original Outlook and its subsequent update in 2002. These discussion topics encapsulate the challenges faced in Nunavut's efforts in reaching its potential.

The debate over the strategic direction of investment dollars: Should Nunavut's investment strategy focus more heavily on improving economic performance or social performance? Nunavut is now at the beginning of a period of economic expansion. Therefore, it is up to Nunavut society to do what it can to use the economic growth to its advantage, and invest in capital that will generate wealth for everyone and not just those that are ready, willing and able to participate today. Strong leadership will be essential in ensuring that the newly formed wealth is shared amongst all Nunavummiut.

The rising concern over infrastructure shortfalls: Nunavummiut understand the dilemma they face in addressing the Territory's infrastructure deficit. They know that these deficiencies, such as scarce housing, are having profound impacts on the progress of their society. The Government of Nunavut has adopted a number of strategies to address the infrastructure gap but faces too many obstacles to eliminate the deficit on its own. A combination of smarter building designs incorporating lower capital and operating costs, lower public expectations, and continued effort to raise awareness among southern Canadians and the federal government of these infrastructure shortfalls and their impacts on Nunavut's progress will also be required.



The role of Inuit culture and traditions within an increasingly modern society: There is no doubt that Inuit culture must maintain its relevance across Nunavut. However, this is proving to be a difficult task, especially as the number of industrial opportunities grows placing more and more emphasis on the performance of the wage economy. Where is the balance between these two worlds? There is certainly a need to consider "Nunavut-relevant" indicators that relate to Inuit culture and traditions to measure and monitor their importance on the health and well-being of Nunavummiut. At the same time, Inuit culture remains a critical component in the tourism industry and in the arts sector. It will be the responsibility of Nunavut's leadership to identify what is a high and sustainable quality of life and translate the wishes of Inuit into realistic government policy.

The growing concern that climate change will have a dramatic effect on Nunavut society: A recent comprehensive international report on climate change has shed some light on what Nunavut's future might look like, and some significant changes can be expected over the next 50 to 100 years. Impacts of climate change will not be restricted to social and environmental arenas. A reduction in sea ice in this century will likely mean the Northwest Passage will open for shipping and more extensive mineral and hydrocarbon exploration. This raises the possibility of environmental degradation in a region particularly sensitive to such things.

Nunavut must invest wisely. Understanding where its needs are the greatest and not losing sight of the ultimate goal to reach a high and sustainable quality of life will be important factors in seeing Nunavummiut in charge of, and participating in their emerging economy.



1 INTRODUCTION AND PURPOSE OF REPORT

Almost five years have passed since the original *Nunavut Economic Outlook*¹ was commissioned providing the first overview of Nunavut's socio-economic environment. Today, much more is known of the young Territory's performance and potential. The unique demography of Nunavut is better understood. The territorial government has established its own policies and programs that are influencing the growth of the Territory. There is better information on Nunavut's capital needs, especially as they relate to human development and infrastructure shortfalls. The mining sector has been reorganised under a new set of Nunavut-specific regulations and the commercial fishing industry has developed a strategy and expanded into new management zones.

The Nunavut Economic Forum (NEF) requested an update of the original Outlook and its subsequent update, published in November 2002,² to learn more about the Territory's socio-economic progress over its first five years of existence and to consider the opportunities and challenges it will face from 2005 to 2020.

This Update continues the tradition of being a consistent and reliable source of data, providing an informed analysis of social and economic issues, and constructing a comprehensive forecast of the whole economy. It remains policy neutral, delivering quality information for input into debate by Nunavummiut and other key decision-makers.

In addition to the standard content, a new chapter will be added to this Update. This chapter highlights some of the issues raised in past reports that have garnered considerable attention and that encapsulate Nunavut's most complex challenges. These include issues such as finding the right balance between human and economic capital investment and finding a solution to the infrastructure shortfalls that plague the Territory's socio-economic progress. These issues, or challenges, will be investigated through the lens of new data and current analysis as well as being given special consideration throughout the broader discussion of Nunavut's performance and potential.

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¹ Nunavut Economic Outlook, 2001: An Examination of the Nunavut Economy, Conference Board of Canada (Ottawa: May 2001).

² 2002 Nunavut Economic Outlook: An Examination of the Nunavut Economy, Conference Board of Canada (Ottawa: November 2002).



2 GENERAL APPROACH AND METHODOLOGY

This report continues to employ the *Framework for Understanding Economic Development* that was established in the original Nunavut Economic Outlook (NEO). The framework was unique at the time, looking beyond conventional economic statistics to understand the progress of society. It set Nunavut's goal as the attainment of a high and sustainable quality of life, emphasising this could not be achieved solely through financial wealth. Instead, it recognised the need for safe and healthy communities, a clean environment and a multitude of productive choices. As such, a broad investment strategy was needed to expand wealth under this holistic definition. Investments in physical, human, organisational, and natural capital were required. This 2005 Update of the *Nunavut Economic Outlook* is an investigation into the status of Nunavut's four forms of wealth-generating capital as described below and the impact of any recent changes on the Territory's growth.

Physical capital: This includes the structural and mechanical requirements of business and industry, such as transportation and communication systems, power generation, and commercial space. Physical capital can also serve to enhance social performance through safe and adequate housing, schools, and hospitals.³

Human capital: Investments in human capital work to improve society's level of literacy and numeracy, health and social well being, employment skills and knowledge. Public programming for education, health and social needs are perhaps the most common investments in this area.

Natural capital: This includes the raw materials incorporated by economic activity, such as land, wildlife, minerals, energy, as well as the services provided by the environment such as clean water, air and soil required for healthy living, the healing effects of natural beauty and its promotion of human well-being, and the temporary storage of waste. Investments directed toward environmental preservation or improvements fall under this category as do investments that enhance our understanding of natural capital such as geoscience.

Organisational capital: This encompasses the business and social environment within which economic activity takes place and explains how a society is organised to create wealth including the systems of governance and regulations.

In the 2002 Update, the concept of *social cohesion* was added to the discussion. Social cohesion is a difficult variable to measure, but an important concept for consideration in Nunavut. It deals with the willingness of individuals to co-operate and work together at all levels of society to achieve

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³ Definitions provided by the 2002 Nunavut Economic Outlook.

⁴ Nunavut Economic Development Strategy: Building a Foundation for the Future, Sivummut Economic Development Strategy Group, June 2003, page 29.



collective goals.⁵ It is often summarised as the level of trust between individuals, families and organisations. Potential measures of social cohesion include voter turnout, crime levels, volunteerism, public participation in debate, and attitudes towards diversity.

The information to be incorporated in this Update includes (but is not limited to) the following:

- National and territorial socio-economic databases including Statistics Canada and any updates from Nunavut's Bureau of Statistics;
- Social statistics producers including Canadian Institute for Health Information;
- Recent industry publications and reports;
- Key government/public reports both territorial and federal;
- The World Economic Outlook published by the International Monetary Fund; and,
- Interviews with key Nunavut stakeholders.

⁵ M. Sharon Jeannotte et al., *Buying in or Dropping Out: The Public Policy Implications of Social Cohesion Research* (Department of Canadian Heritage: 2002).



3 EMERGING CHALLENGES FROM PAST OUTLOOKS

It has been over two and half years since the last *Nunavut Economic Outlook* update was published and almost five years since the original Outlook was first researched. A number of the issues identified in those reports have received a lot of attention.

- The debate over the strategic direction of investment dollars: Should Nunavut's investment strategy focus more heavily on improving economic performance or social performance?
- The rising concern over infrastructure shortfalls: Many, if not all keystakeholder organisations in Nunavut have produced strategies/proposals that address the Territory's infrastructure gaps. Will these actions be enough? Where does the Territory go from here?
- The role of Inuit culture and traditions within an increasingly modern society: There is no doubt that Inuit culture must maintain its relevance across Nunavut. However, this is proving to be a difficult task, especially as the number of industrial opportunities grows placing more and more emphasis on the performance of the wage economy. Where is the balance between these two worlds? Can more be done to ensure both remain vibrant?
- The growing concern that climate change will have a dramatic effect on Nunavut society: A recent comprehensive international report on climate change has shed some light on what Nunavut's future might look like, and some significant changes can be expected over the next 50 to 100 years. What can Nunavummiut do about this? Is the Territory organised to develop and communicate a strategy on climate change?

3.1 NEXT STEPS

These questions should be considered throughout the following discussion. It is not the role of this Update to answer these questions on behalf of the reader. Instead it hopes to provide quality information that allows Nunavummiut to form their own opinions, initiate discussions, and ultimately develop their own solutions.



4 WHERE WE STAND TODAY: AN UPDATE ON NUNAVUT'S WEALTH-CREATING CAPITAL

In June of 2003, Nunavut released its first-ever *Economic Development Strategy*. It was aptly subtitled *Building a Foundation for the Future* and focused on investments that are fundamental to success in any economy.

Our principal task in the next ten years is to ensure that the four forms of capital necessary for wealth creation are present in Nunavut; that is, to foster the formation of natural, human, economic and social capital in the Territory. That is the core of our Strategy.⁶

Capital formation is necessary for long-term, socio-economic growth. There are concerns across Nunavut about the lack of investments in all four areas and the long-term implications this will have. Perhaps most evident are the gaps that exist in infrastructure, which can affect economic, social and environmental performance. But other gaps exist that may have more serious repercussions over the long term if not addressed such as those in Nunavut's human capital.

In this chapter, we report on Nunavut's progress toward the formation of wealth-creating capital and present new evidence of the Territory's socio-economic performance. Where no new information has surfaced since the 2002 Update, it will be noted and the reader is encouraged to refer to the previous Update or the original *Nunavut Economic Outlook*.

4.1 PHYSICAL CAPITAL

Infrastructure is the most common form of physical capital, but readers should not assume that it serves to enhance economic performance exclusively. A study produced by the Government of Nunavut's Department of Community and Government Services with assistance from the Conference Board of Canada demonstrated how public infrastructure can impact all aspects of a community's performance. The highlights of this research are presented in Exhibit A.

With infrastructure playing such a vital role in modern society, it is worrisome that Nunavut suffers deficits in so many areas. Moreover, Nunavut's infrastructure will be affected by several mounting pressures. For example:

- in addition to new infrastructure, there is a growing need to replace existing infrastructure that is fast-approaching or long-past the end of its lifespan;
- this existing infrastructure is also under increasing pressure from a growing population—municipal facilities as well as the stock of housing in many communities were not designed to meet current demands;

⁶ Nunavut Economic Development Strategy: Building a Foundation for the Future, Sivummut Economic Development Strategy Group, June 2003, page 31.



- meeting new National standards for municipal services such as water supply, sewage systems and waste disposal are already far beyond Nunavut's financial capacity;
- global climate change will bring severe weather that is more frequent and intense—many of Nunavut's buildings, roads and airports were not built to a standard that could sustain further environmental pressure;⁷ and,
- raising awareness amongst Canadians of Nunavut's infrastructure plight has been difficult in the face of many competing infrastructure shortages in more populated, southern regions of the country.

•			Social performance is affected by		Environmental performance is affected by		
•	Telecommunications networks	•	Recreation, community and cultural facilities	•	Waste water treatment		
•	Transportation links	•	Safe and healthy housing	•	Solid waste disposal		
•	Reliable energy sources	•	Health care and social support facilities	•	Recycling programs		
•	Business development centres	•	Education and training facilities	•	Energy sources and use		
•	Housing (in terms of labour mobility and at-work performance)	•	Protective services (e.g. fire fighting equipment, correctional facilities)	•	Treatment of hazardous waste		

4.1.1 Housing

In both the original *Nunavut Economic Outlook* and its subsequent Update the dire situation regarding Nunavut's housing was highlighted. Little has changed in the past two years to alleviate the stressed infrastructure. With every passing year, more and more households form in Nunavut and the Territory falls further and further behind in terms of an acceptable stock of housing.

Shelter is one of life's basic requirements. And it is believed by many working in the area of population health that housing deprivation can negatively influence social and economic performance given its central influence on people's lives. The greatest level of evidence on outcomes is with chemical, biological and physical exposures in a house. Outcomes can also be severe in

⁷ "Experts: Climate Change could wreak havoc on infrastructure," Jane George, Nunatsiaq News, July 8, 2005, based on a report released by the Adaptation and Impacts Research Group of Meteorological Service of Canada.

⁸ Brent Moloughney, *Housing and Population Health: The State of Current Research Knowledge*, Canadian Institute for Health Information, June 2004.



cases where housing is lacking, with Nunavut providing evidence of this. For instance, Nunavut has:

- The highest rate of tuberculosis in Canada;
- Among the highest lower respiratory tract infections (LRTI) in the world;
- Among the highest suicide rates in Canada;
- One of highest rates of family violence in Canada; and,
- Among the lowest student test scores in Canada.

The poor state of housing is not a result of local complacency. Both the Government of Nunavut and Nunavut Tunngavik Incorporated (NTI) have made housing a priority. The government continues to dedicate 10 per cent or more of its overall budget for public housing. In 2005-06, this amounts to \$110.8 million of which \$90 million pays for operations with the remaining \$21 million earmarked for capital projects. As previously reported in the past Outlooks, the Canada Housing and Mortgage Corporation (CMHC) also provides \$56 million for housing each year through a program that will be phased out over the next 30 years. But even with this amount of dedicated funding, the cost of operating and maintaining existing homes limits the number of new units that can be built. Less than 100 units are typically added to the public stock each year. §

The most important change in the Territory's housing scene is a new joint strategy developed in 2004 by the Government of Nunavut and NTI. It is the most comprehensive investigation into Nunavut's housing crisis to date. Based on research by the CMHC and the Government of Nunavut, Nunavut Ten-Year Inuit Housing Action Plan claims the Territory needs 3,000 new units to alleviate existing demand and another 270 units a year to address the needs of the expanding population (see Exhibit B). 10

Exhibit B: Facts on Nunavut Housing

- Number of publicly-owned or maintained homes (2003-04): 3,638
- Twenty per cent of these homes (790) are over 25 years old
- Average cost of new home: \$250,000
- Annual operation and maintenance costs: \$19,800
- Number of households reportedly in need of housing today: 3,000
- Number of homes needed to keep pace with growing household formation: 273 annually

Source: Government of Nunavut/NTI Housing Strategy

⁹ The Nunavut Housing Corporation in coordination with the CMHC has built 300 public units in Nunavut from 2000 to 2004.

¹⁰ Nunavut Ten-Year Inuit Housing Action Plan, Government of Nunavut and Nunavut Tunngavik Inc., (Iqaluit: August, 2004).



Then there is the issue of renovations, repairs and efficiency upgrades to bring ageing and dilapidated homes up to a reasonable standard as well as the cost of operating and maintaining the additional homes.

All told, this plan would cost \$1.9 billion—far beyond the financial capacity of Nunavut's government and Inuit organisations. And while these costs can be calculated with reasonable ease, the benefits from implementation of this strategy are more difficult to quantify. A housing project of this magnitude would have profound social ramifications, impacting health, education and productivity while providing ten years of employment, skills training and business opportunities across the Territory.

From the perspective of this Update, the Territory should not expect to attract the necessary funding to build and maintain 5,730 new homes over the next ten years. The initial response to the proposal from the federal government was not positive, stating the project was too ambitious. It is not clear that public housing should expect to offer an occupancy rate equal to what the private housing market has created in southern Canada, or if these southern occupancy rates are desirable from the standpoint of efficient usage of Nunavut's scarce resources. Further discussion of the economics of this proposal is presented later in this report.

Previous to the release of the housing strategy, the federal and territorial governments signed a contribution agreement worth \$40 million (\$20 million from each side) to build homes over a two-year period, 2004 and 2005. This money is enough for 160 new homes. But it will not go far in alleviating the current pressure on housing or have a visible impact on overcrowded homes.

While the forecast has not included the full implementation of the housing strategy, it must be recognised that failing to address this shortage represents a significant downside risk to this forecast, and indeed the quality of life of Nunavummiut. Any economic gains realised over the forecast period without improvements to Nunavut's social performance will result in heightened prosperity that is short-lived. There is anecdotal evidence from the Northwest Territories that shows sudden income growth in isolated communities has resulted in an out-migration of young and employable people, with housing being one of a number of social factors. A similar fortune awaits Nunavut if nothing is done to address shortfalls in basic human needs.

4.1.2 Telecommunications/Connectivity

High-speed broadband is now available throughout Nunavut's 25 communities. This is a result of successful implementation of the Nunavut Broadband Development Corporation's strategy that formed after the release of the report by Nunavut's Broadband Task Force in 2002 (Sivumuuqpallianiq, Moving Forward: Strengthening Our Self-Reliance in the Information Age) and in response to Industry Canada's Broadband for Rural and Northern Development program.



Although the cost is smaller than most of the projects discussed in this Outlook, over time the \$10 million spent to bring broadband infrastructure to every community in Nunavut might one day be viewed as the greatest infrastructure breakthrough in the Territory's history.

Previously, high-speed broadband was reserved for government and rarely available to individuals. In some communities, the public could access a dial-up service, but at considerable cost. The new system is available to everyone, and is relatively affordable. Basic service will cost \$60 per month regardless of the community, after a registration fee and a deposit for a modem.

More than anything, this is an investment in Nunavut's children. As in every other jurisdiction in Canada, young people in Nunavut will embrace the Internet, changing their lives forever. In previous reports, a lot was made of this generation shaping the Territory in the same manner as "baby boomers" have in the rest of North America. Ready access to high-speed broadband is a step toward the actualisation of this. From a new perspective of the world in which they live, Nunavummiut will demand more of government and its services. Expectations of communities will rise. And, perhaps most interesting, the mobility of young Nunavummiut may grow as the rest of Canada and indeed the world become less unknown.

It will be difficult to find the complete impact of this investment inside the economic forecast presented later in this Outlook, but it is there. From the standpoint of construction, the \$10 million investment is relatively small and consisted primarily of imports, but it will generate employment throughout the service sector. People will be needed to teach others how to use the new technology. Soon, most Nunavut-based organisations, including government will need to spend money improving their websites and online service. That means website designers, programmers, computer technicians and translators.

Commerce will be affected. Banking will improve through access to online services. ¹¹ There will be new opportunities in advertising for individual artists and other businesses, as well as opportunities for telework and distance education. Meanwhile, Nunavut's retail sector already faced with competition from the south as a result of catalogue shopping and other forms of importation will now have more competition through on-line shopping. This could have a potentially crippling effect on some retailers.

Finally, the Nunavut Broadband Development Corporation will not be long without competition. Northwestel is also working to put in place technology to supply high-speed broadband to Nunavut. The competition will help keep service affordable and give consumers a choice. It will also improve the speed in which faults are corrected. No doubt these new services will encounter some interruptions, but in the face of competition, the ability to resolve them will be critical.

¹¹ Currently, 22 of Nunavut's 25 communities are without a financial institution.



4.1.3 Schools and Health-care Facilities

The Government of Nunavut has made a concerted effort to improve the longterm social performance of Nunavummiut. A major component in this effort has been investments in education and health facilities throughout the Territory.

No fewer than 15 communities (out of 25) received or are set to receive some form of upgrades to their education facilities. This includes the replacement of Jonah Amitnaaq School in Baker Lake as well as Joamie School in Iqaluit, which was destroyed by fire. The most recent budget included \$2.9 million worth of sprinkler system upgrades for all school facilities in hopes of averting another loss due to fire. Access to education has also improved over the past two years through investments in accommodations for students attending Nunavut Arctic College in Iqaluit, Rankin Inlet and Cambridge Bay. All told, \$75 million will have been spent on education facility renovations, upgrades and replacements over the three-year fiscal period from 2003-04 to 2005-06.

Health-care facilities are also receiving more attention since the 2002 Update. Regional health centres have been built in Cambridge Bay and Rankin Inlet, while a new hospital is under construction in Iqaluit. These three investments will exceed \$100 million including the purchase of equipment. Meanwhile, health facilities in Repulse Bay, Pangnirtung, Pond Inlet, Igloolik, and Arctic Bay have or will be replaced. The new infrastructure should make it easier to care for residents at home, rather than sending them south.

4.1.4 Municipal Infrastructure

New details on Nunavut's municipal infrastructure deficits were exposed over the past two years through the efforts by the Department of Community Government and Services (CGS) and the Nunavut Association of Municipalities.

For the 2004-05 fiscal year, CGS assessed its community infrastructure in a government-wide business plan revealing some considerable challenges. ¹² Some of the information provided for that assessment included:

- Assessments of water and sewage systems indicated that truck delivery and pick-up may not be the most cost effective method. The capital and operating cost of providing water and sewage services to homes in the Arctic is 125 times more than that in southern Canada and represents the largest utility cost in Nunavut at 46 per cent;¹³ this in spite of the ample supply of fresh water throughout the Territory.
- The government does not have money set aside to deal with new Canadian water standards. A revision of the turbidity guideline by Health Canada may result in significant one-time capital costs that exceed \$93 million, annual

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¹² Government of Nunavut, Community and Government Services, *Business Plan 2004-05* page J-7.

¹³ Canada Mortgage and Housing Corporation, "Northern Water and Sewer Infrastructure Cost Study." Draft Report. 2003., p. 16. Note: this refers to the cost of providing services, not the cost of goods sold.



capital upgrade costs of \$5 million, and operations and maintenance costs of over \$9 million per year to meet the new rules.

- Infrastructure Canada's Strategic Infrastructure Fund will provide \$20 million to assist Nunavut in upgrading sewage systems in three communities, but another \$100 million will be needed to bring the remaining systems to national standards. Nunavut's existing sewage lagoons are under enormous pressure from the growing population and as a result are failing at a rate of 65 per cent.
- Approximately 50 per cent of Nunavut's community halls are at the end of their acceptable life-cycle and must be replaced. The need to adopt new fire and building codes make this all the more necessary. The Government of Nunavut estimates it is five years behind schedule for replacing community halls in accordance with sound life-cycle management principles.

CGS previously developed a rough estimate of community infrastructure needs that came with a \$650 million price tag, meaning that a capital budget in the neighbourhood of \$125 million over five years could address this need. The new evidence gathered over the past few years, and noted above, suggests that this earlier estimate was low. The Government of Nunavut can typically commit \$100 million to capital projects each year, with last year being an exception, meaning the existing community infrastructure deficit will grow.

4.1.5 Accessing Stranded Resources

It remains that Nunavut's most valuable natural resources cannot be accessed easily because of missing infrastructure. Nunavut's store of minerals is the most notable "stranded" resource, but also on the list are fish, wildlife and Nunavut's natural beauty. The original Outlook and the subsequent update discussed these shortfalls and the challenges in financing the investments. Nunavut is still without a deep-sea port or a single road that connects two communities, but there has been progress in some areas.

Nunavut's interest in the deep-sea port at Bathurst Inlet and the road to Contwoyto Lake is a little closer to reality than it was three years ago. The federal government through Indian and Northern Affairs Canada determined that the project required a "Part 5" environmental review process meaning the responsibility and accountability of evaluating the project's *Environmental Impact Statement* and making the final recommendation to the federal government falls to the Nunavut Impact Review Board rather than a federal environmental assessment panel ("Part 6"). This by no means guarantees that the project will receive approval, nor does it address the project's capital requirements, but it will result in a quicker review process.

¹⁴ Nunavut's natural landscapes are included since they would offer an opportunity for tourism.

¹⁵ Part 5 and 6 of Article 12 of the Nunavut Land Claims Agreement.



Nunavut is no closer to developing any other of its large-scale projects. Research continues on the possible road link between Manitoba and Rankin Inlet, while the Kimmirut port and road idea has all but disappeared. Most recently, there has been renewed interest in a port facility for Iqaluit. These projects will never be built if the decision is based exclusively on economics. Cost-benefit analyses miss far too many intangible social benefits, especially in depressed regions. Even in southern Canada, most infrastructure projects outside major centres are known and accepted job creators, providing idle labour with an opportunity to refresh their skills while providing some hope to what is often a desperate economic environment. These factors have not been missed by project proponents however at this point key stakeholders in the federal government have not viewed these projects from that perspective.

The most progress in accessing Nunavut's natural resources has come from its fishery. The Baffin Fisheries Coalition has chartered a factory freezer trawler from Iceland—renaming it Inuksuk One—to harvest their quota of turbot and shrimp. Recent comments by the coalition suggest that it is considering a "lease-to-own" type agreement that would result in outright ownership of the vessel in 10 to 12 years. Ironically, the boat is too large to dock anywhere in Nunavut due to the absence of a practical deep-sea port¹⁶ and therefore must sail to Newfoundland to receive any maintenance, repairs or to change crews.

On a smaller scale, the Government of Nunavut is looking for federal support for its \$23 million investment in new breakwaters for seven communities. This infrastructure would improve safety for the smaller inshore fishing vessels, as well as offering opportunities for small tourism operators.

4.2 HUMAN CAPITAL

Both the 2001 and 2002 Updates identified serious shortcomings with Nunavut's level of human capital, particularly in the areas of education, health and social conditions. In 2005, we can legitimately ask if an evident trend is emerging in human capital that is pointing Nunavummiut in the right direction. While all four forms of capital are critical, it has been maintained that human capital must remain Nunavut's highest priority.

It is important to be clear on what is meant by human capital. It is often thought of as the stock of human labour, more specifically, the quality of the labour force for the wage economy. But in its truest sense human capital is much broader. Human capital is the overall capacity in terms of health, knowledge, education, and skills of people to be productive whether it be participating in the wage economy, active in the land-based economy, volunteering or supporting the family, or pursuing education or training opportunities, either traditional or western. Without sufficient levels of human capital, productive activities cannot be performed and thereby reduce a

¹⁶ The soon-to-be abandoned deep-sea port at Nanisivik notwithstanding.



society's chance of achieving a high and sustainable quality of life.¹⁷ A study by Statistics Canada looking at 14 industrialised countries found that investing in human capital, such as education and skills training, "is three times as important to economic growth over the long run than investing in physical capital." Investments in literacy and women provide particularly high returns.¹⁸

Exhibit C: How a community can help the development of Human Capital

There are several ways communities can assist in developing human capital

- Providing a safe environment for families, including clean air, water and soil, safe and adequate shelter, low levels of crime
- Ensuring people have access to nutritious food choices including local foods
- Delivering strong public health and primary health care systems to support illness prevention such as supporting healthy pregnancies and new parents
- Developing early childhood learning opportunities and an effective education system (traditional and/or western) including the teaching of land-based skills
- Celebrating the community's history, its knowledge and culture through such things as community centres, museums, galleries
- Promoting spirituality including the opportunity for spiritual healing
- Establishing recreational programs for children and youth including inter-generational programs that help transfer knowledge (e.g., rangers, fishing, etc.)
- Ensuring training opportunities meet the community's needs
- Raising the level of trust in the community through volunteering and open systems of governance—strong social cohesion ensures the other "human capital" activities function properly

Source: Impact Economics, CED Revisited Discussion Paper (pending publication, 2005)

The following sections review key areas in Nunavut's human capital. The goal is to determine whether there have been any improvements in the past five years and whether a new course of action is needed.

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¹⁷ CED Revisited Discussion Paper, Impact Economics. Developed in cooperation with Indian and Northern Canada (*pending publication*, 2005).

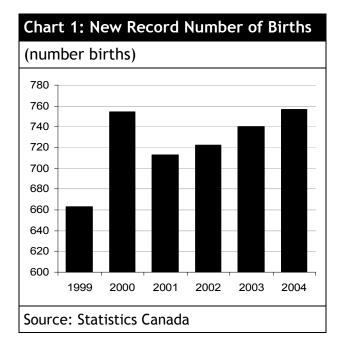
¹⁸ Serge Coulombe et al., *International Adult Literacy Survey: Literacy scores, human capital and growth across fourteen OECD countries.* Statistics Canada. Ottawa: Minister of Industry, 2004.



4.2.1 Demographics

A key and enduring point that has been made in the previous Updates is the fact that Nunavut has a very different demographic situation from southern Canada. As a result, the Territory requires a different set of priorities and policy responses from most southern jurisdictions.

The first key distinction Nunavut's population is its rapid growth. While the rate population growth in Nunavut has been slowing, it nevertheless continues to experience significant increases driven by higher-thanaverage fertility rates. In 2004, more children were born in



Nunavut than any other time in its history (See Chart 1).

A second distinction is the size of Nunavut's young population. Approximately 35 per cent of its population is below the age of 15 years—this is double the Canadian average. However, Nunavut's working age population, 15 to 64 years, is the smallest in the country as is the percentage of seniors. ¹⁹ This demographic profile gives Nunavut the distinction of having the highest dependency ratio in the country. ²⁰

The third distinction of Nunavut's demographics is the concern over what to do with Nunavut's youth population as they enter the labour force. "How can the territory find enough employment opportunities for this growing cohort?"²¹

4.2.2 Education

With such a young population, it's easy to see the importance of a strong education system.

Motivating Aboriginal young people to complete their education is vital to transforming the economic future of their communities. A foundation in traditional knowledge and proficiency in the professional and technical skills of contemporary society will build

Impact Economics

¹⁹ Statistics Canada, *Canadian Statistics*, www.statcan.ca.

Dependency Ratio refers to the proportion of the non-working age population (both young and old) to the working-age population. Dependency ratios therefore describe the extent to which the working-age population must support the entire economy.

²¹ Gordon MacKay and Wayne Johnson, "Sustainable Development in Nunavut: The Role of Geoscience" *Exploration and Mining*; January 2003; v. 12; no. 1-4; pp. 21-30.



self-reliance. Strong community commitment will be needed to help young people acquire this education, particularly if they have to leave their communities for an extended period.²²

Early childhood development is seen as an important contributor to human capital which affects social, health and education outcomes. Governments across the country have acknowledged the importance of early childhood education by announcing several funding initiatives over the past few years, most recently a national childcare program. The Government of Nunavut has identified four strategic priorities in the area of early childhood development:

- Establish a comprehensive home visiting program
- Stabilise and enhance the current childcare system
- Increase parenting and family supports, especially for children with special needs
- Develop a coordinated system of early childhood development.²³

It's far too early to assess the effectiveness of this strategy. Nevertheless, it is important for Nunavut to monitor the progress of children given its impact on future learning.

Levels of education in Nunavut have shown a slight improvement since the first *Nunavut Economic Outlook* was released. More students are staying in school and more are graduating with a trade,

Table 1: Nunavut's Graduates							
(percentage of graduates)							
	High school (aged 25-29)	Post-secondary (aged 25-54)					
Nunavut	64.7	43					
NWT	77.5	55.8					
Yukon	85.4	63.1					
Newfoundland	79.3	52.8					
and Labrador							
PEI	79.8	53.3					
Nova Scotia	84.6	58					
New Brunswick	83.7	48.6					
Quebec	84.2	53.7					
Ontario	87.9	57.3					
Manitoba	79.2	50.6					
Saskatchewan	79.5	51.6					
Alberta	83	56.8					
ВС	86.2	57.7					
Canada	85.3	55.7					
Source: Statistics Canada, 2001							

college or university diploma. As a result, the percentage of Nunavut's population with at least a high school diploma is improving. But as Table 1 shows, Nunavut has a long way to go before its education levels equal the performance of other regions of the country.

²² Report of the Royal Commission on Aboriginal Peoples. Volume Two: Restructuring the Relationship, Chapter Five: Economic Development (1996).

²³ Government of Nunavut, Department of Education, Department of Health and Social Services, *Nunavut's Early Childhood Development Expenditures and Programs: Baseline Report 2000/2001 and Update 2001/2002*.



Increased levels of participation in school and higher numbers of graduates are vital but success comes down to the skills needed to participate in life and in the work environment. Nunavut's education system must ensure that its graduates gain the necessary skills required to compete for the employment opportunities coming to the Territory as outlined later in this report.

4.2.3 Social Conditions

Despite the fact that social conditions can play an important role in economic performance, very little social indicator data exist in Nunavut, or in Canada. The lack of up-to-date data on social indicators makes it more difficult to raise the issue and direct resources to improve conditions. The data that are available are presented in Table 2.

	Nunavut	NWT	Yukon	Canada
Total Population (2004 estimate)	29,600	42,800	31,200	31,946,300
Aboriginal population (% of total population)	85	50	20	3
Percentage of single parent families	26	21	20	16
Average family income	\$52,624	\$75,102	\$69,564	\$66,160
Participation rate	68.1	75.9	76	66.9
Unemployment rate (2001-2002)	17.4	5.8	9.4	7.4
Suicide rate (age-standardized, per 100,000, 3-year ave.)	80.2	20.8	18.5	11.5
Crimes of violence (per 100,000, 2003)	7,943	6,792	3,799	963
(per cent increase from 1999)	50%	35%	20%	0.50%
Property crimes (per 100,000 people, 2003)	7,221	7,220	7,421	4,121
(per cent increase from 1999)	65%	24%	3%	-4 %

In addition to the figures shown in the Table, we can report an increase of 1.8 per cent in social assistance caseloads between 1999 and 2002. This is an improvement from the early 1990s when the number of caseloads was growing by 6 per cent annually.²⁴

4.2.4 Health Status and Well-being

The Government of Nunavut, along with all of the other provinces and territories agreed to issue public reports on the health status of its population every two years. The 2004 report, prepared by the Department of Health and Social Services, provides a comprehensive picture of the health status of Nunavummiut. Nunavut's report was one of the most comprehensive reports released by any jurisdiction demonstrating its dedication to assessing performance and comparing itself with others.

We now have greater certainty about the population's major health issues with these and other recently released reports such as the *Ten-Year Profile of Cancer in Nunavut*. We also have information on the level of satisfaction of

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²⁴ Government of Nunavut, Department of Education, *Nunavut Income Support: A Snapshot of Activities* 2004, June 2004.



health care services received by Nunavummiut. The following section summarizes these reports' findings.

Health care satisfaction

The Nunavummiut satisfaction rate for health care services is 11 per cent lower than the Canadian rate. However, in terms of community care, Nunavummiut report higher levels of satisfaction. Either Nunavummiut have lower expectations than other Canadians or the community-based system is meeting their needs better than in the south.

Nunavut has been taking steps to upgrade its health-care system including the addition of two new health centres in Rankin Inlet and Cambridge Bay, thus reducing the number of patients that are required to travel out-of-territory for care. However, human resources remain in short supply. There are primary care physicians in only two communities, Iqaluit and Pond Inlet. A comprehensive telehealth system is installed as an alternative strategy, but reliance on southern professionals has its own challenges, especially as shortages in southern Canada grow. Nunavut's best approach is to train its own people and utilise existing health providers as effectively as possible.

Despite a small decrease over the past year, the Government of Nunavut still spends more money per capita delivering health care than anywhere else in the country, followed by the other two territories. Nunavut actually spends more than double the Canadian average, representing 22 per cent of its gross domestic product—although it must be recognised that Nunavut's health-care budget includes significant travel costs to transport patients to larger centres in the Territory or to southern Canada.

The health status of Nunavummiut

There remains a major gap in health status between Nunavummiut and other Canadians (see Table 3). For example, life expectancy at birth for Nunavummiut is equal to what the Canadian rate was in the early 1950s. The gap in life expectancy is particularly wide between females. In addition, life expectancy for women in Nunavut who reach 65 years of age is actually lower than it is for men—11.4 years versus 16.3 years, respectively. This is the only jurisdiction in Canada where this is found. Women's health appears to be a serious issue in Nunavut. Approximately half of the Nunavut population report either very good or excellent health compared to 60 per cent of all Canadians.

Nunavut's performance in other areas is poor as well. For instance, while declining, Nunavut's rate of infant mortality is still three time higher than the Canadian rate, while the rate of low birth weight is 3 per cent higher than the national average. Low birth weight babies are at a greater risk of dying during the first year of life and are also at a higher risk of acquiring disabilities.

²⁵ Life expectancy at age 65 refers to the length of time people can expect to live on average beyond 65 years of age.



Nunavut also continues to have the highest rate of tuberculosis in the country with a projected increase for 2005. 26

Lung cancer mortality, already very high in Nunavut compared to the rest of the country, is rising. It accounts for 40 per cent of all invasive cancers in Nunavut—something that is largely preventable. As identified by Nunavut's Chief medical Officer of Health, "tobacco control has to be our highest priority."

The evidence of the overall health of Nunavummiut is not all bad. Nunavut has low rates of heart attacks and breast cancer. The trend of tuberculosis continues to drop, with 2005 being an exception, while the prevalence of diabetes remains lower than the Canadian average. Second, and most importantly, much of Nunavut's poor health is preventable and can be overcome by focusing on preventative measures and the determinants of health which include income, education and literacy, personal health practices, healthy child development, social supports, and physical and natural environments. For instance, Nunavut has the highest rate of deaths in the country due to unintentional injuries such as motor vehicle accidents, drowning, burns and poisoning. These are all deaths that are preventable.

Table 3: Health Indicators				
	Nunavut	NWT	Yukon	Canada
Aboriginal population (% of total)	85	50	20	3
Public health spending per capita (\$)	7,049	5,826	4,063	2,535
Life expectancy at birth (males, 2002)	67.2	73.2	73.9	75.4
Life expectancy at birth (females, 2002)	69.6	79.6	80.3	81.2
Life expectancy at age 65 (males, in years, 2002)	16.3	14.5	15.6	17.1
Life expectancy at age 65 (females, in years, 2002)	11.4	19.2	19.5	20.6
Infant mortality rate (per 1,000 live births, 500 grams or more, 2001)	15.6	4.9	8.7	4.4
Low birth weight rate (% of births less than 2,500 grams)	7.6	4.7	4.7	5.5
Potential years of life lost due to unintentional injury - deaths per 100,000	2,128	1,878	1,066	628
Lung cancer (mortality rate per 100,000 population)	209.5	61	73.2	48.2
Deaths due to heart attacks (rate per 100,000 population)	3.7	28	37.1	52.1
Self-reported health (per cent aged 12 and over reporting excellent or very good health)	51	54	54	59.6
Physical activity (per cent aged 12 and over reporting active or moderately active)	31.6	51	58.8	51
Source: Statistics Canada, 2001 Census or unless otherwise no	ted			

²⁶ "TB rates stay stubbornly high in Nunavut" Canadian Broadcast Corporation, CBC North, July 27, 2005.

²⁷ Government of Nunavut, Department of Health and Social Services, A Ten-Year Profile of Cancer in Nunavut, November 2003.



Future of Nunavut's Health-care System

Nunavut's health-care system is growing and will face more and more chronic illness. Experience from the south is that a further expansion of the formal health-care system puts enormous pressure on provincial budgets. Nunavut does not have the economic strength to follow this path and should consider alternative approaches to the greatest extent possible to address its health care problems such as:

- health prevention (including accident prevention, smoking, communicable diseases particularly in light of crowded housing conditions);
- use of alternative health care technologies (e.g. telehealth); and,
- use of other health care providers (e.g., nurse practitioners)

Innovative, low-cost programming will be needed if Nunavut is to improve significantly on its level of public health. A workshop organised by the Inuit Tapiriit Kanatami on community programs aimed at preventing and managing diabetes illustrates a low-cost approach to improve health both in the short and long term.²⁸

Well-being/Spiritual health

A review of health status indicators is important. But it does not tell the whole story on well-being; that is, aspects of health that go beyond physical outcomes. The Associate Medical Officer of Health noted upon the release of Nunavut's health indicators report that the comparative indicator exercise fails to identify other factors valued by Nunavummiut as contributing to their health and well being such as their connection to the land.²⁹

Spiritual health is an important indicator for Nunavummiut, often viewed as the fourth component of the well-being circle. Nunavummiut have high participation rates in both organised and unorganised religions compared to other Canadians. A key question is whether this rate will remain high with Nunavut's youth population.

No doubt, other factors are viewed by Nunavummiut to contribute to their well-being. As indicated earlier, achieving a high and sustainable quality of life is the starting point for this report. Defining what constitutes this "high and sustainable quality of life" is vital, particularly in light of all of the changes occurring in Nunavut. The definition is most likely a moving target thereby requiring constant monitoring.

4.2.5 Summary of Human Capital Development

In summary, it appears that Nunavut is making progress on its level of human capital despite its poor social conditions. The key is to recognise that it is a

²⁸ "Diabetes: A Non-Disease a Century Ago, a Risk to Inuit Today" Inuit Diabetes Network Workshop, Inuit Tapiriit Kanatami, Ottawa, February 20-21, 2004.

²⁹ "Health study incomplete, but still useful, say officials" North.CBC.ca, December 1, 2004.



long journey and progress will occur over a long period of time. Having said this, Nunavut leaders must ensure that all of the considerable resources being put into human capital development are being used effectively and achieving the desired outcomes. The Territory cannot fail in this endeavour.

4.3 SOCIAL AND ORGANISATIONAL CAPITAL

Social and organisational capital speaks to how a society is organised and functioning to create wealth. In Nunavut's case, this refers to how the Territory has organised itself in terms of government, the not-for-profit and voluntary organisations (often referred to as civil society) and the private sector. Social capital also speaks to the level of trust among its players to organise and work collaboratively.

The previous Outlooks reported on the formation of Nunavut and its choices in organisation. Leadership was initially devoted to establishing a government appropriate for Nunavummiut, including such things as decentralisation of government departments and implementing a policy to provide preferential treatment in contracting to local businesses. Likewise, Nunavut Tunngavik Incorporated, representing Inuit interests under the *Nunavut Land Claims Agreement*, has spent the past several years working on the Agreement's implementation. Considerable effort was also made to set out the overall vision for Nunavut and its governing bodies including the release of the *Bathurst Mandate* in 1999.

In more recent years, there have been more efforts by the main political and economic leaders to work together to set concrete directions for Nunavut's economy. This has involved the creation of several coalitions and collaborative projects and the development and release of several strategic plans for action.

In 2003, the Sivummut Economic Development Strategy Group was established to work on Nunavut's first economic strategy. This group involved more than 20 organisations including Inuit organisations, chambers of commerce, the Nunavut Association of Municipalities, industry associations, labour, and government. Nunavut's *Economic Development Strategy* was released in 2003 and is now being overseen by a similarly broad Nunavut Economic Forum.

Collaboration across the three territories has resulted in the federal government-sponsored Northern Strategy. This will provide \$40 million to each territory to develop a coordinated approach to economic development.³¹

In addition to an increase in collaborative efforts, a considerable amount of time and effort is being given to the development of plans or strategies such as Government of Nunavut departmental strategies or economic sector-specific strategies. These include strategies for fishing and housing which have been

³⁰ Nunavummi Nangminiqaqtuniklkajuuti (NNI) Policy.

³¹ More details on the list of new federal transfers are provided in Exhibit E found in Chapter Six.



completed, while strategies on mining, tourism and arts and crafts are in the works.

The creation of an overall framework and plan helps to focus the activities of public sector programming. However, a key requirement is the prioritisation of action steps. Nunavut does not have the financial or human resources to address every challenge at once. The Territory would be much better served if the government were more forthright about what it can fund today and what will have to wait.

The development of these strategies should not be seen as policy and value neutral exercises. They involve setting direction, and values will influence these directions. As such, unanimous consent may not be possible as seen with the debate on how Nunavut's fishing resources should be harvested. There will be opposing views on how best to proceed despite everyone agreeing on a common goal of improving the lives of Nunavummiut. Should a lack of consensus on a strategy be seen as a setback in organisational capital? Does this mean social cohesion in Nunavut is in decline? The answer to both questions is no.

Competing strategies for achieving common objectives is natural and debating alternative strategies can be healthy. But two important points must be remembered. First, while opposing views are fine, there must be mechanisms for resolving these alternative views that are accepted by all sides (e.g., open discussion and debate, polling, a vote or referendum, a citizen's panel). How will Nunavut resolve competing ideas for its economic and social development? How will it prioritise between strategies? For example, among industrial sectors, should priority go toward the fishing strategy or the mining strategy? And, how will it prioritise within each strategy? For instance, what should be the first step for the fishing strategy? These are all questions for Nunavut's leaders to consider.

The second point is that to the greatest extent possible Nunavut must resolve these debates within Nunavut so that it can present its ultimate decision to external sources with a unified voice. A fractured message becomes a message unheard.

In summary, Nunavut's level of organisational capital continues to grow. Many collaborative projects have taken place to solve common problems with some clear examples of success. However, debate still lies ahead as how to best proceed with the strategies for implementing action plans. Compromise and priority setting will be needed given the territory's scarce financial and human resources.



4.4 NATURAL CAPITAL

"A society's fate lies in its own hands and depends substantially on its own choices." ³²

As noted in the previous Updates, the Territory's abundant natural resources support both its land-based and wage-based economies. But the natural capital—the land, water, wildlife, minerals and energy—also supports the people's identity and their well-being in many ways.

In previous reports, it was noted that while Nunavut's natural capital is vast, not all of the knowledge on it has been captured. For instance, while elders have noticed changes in ice conditions, there has been a lack of western science in this area. However, over the past few years, much more information on the state of Nunavut's natural capital has become known.

One of the most significant reports released over the past year pertaining to Nunavut's natural capital is the *Arctic Climate Impact Assessment* by the Arctic Council and the International Arctic Science Committee. Over 300 scientists from 15 countries participated in the research using the latest scientific technology, but also the knowledge of Inuit and other Indigenous peoples from the circumpolar north.

The report contains startling results that stem from years of research into global warming and predictions on the impact it will have on the Arctic climate, flora and fauna, as well as its impacts on northern Aboriginal peoples. For example, the research found that September 2002 had the smallest extent of arctic sea ice cover in recorded history.³³ Nunavummiut will have to adapt to these changes, including:

- a shorter snow season and less predictable weather;
- reduced sea ice coverage and flooding of settlements;
- a reduction in animal species and harvesting numbers;
- damage to northern infrastructure due to thawing of permafrost; and,
- increased exposure to ultraviolet radiation levels.

Equally important to Nunavut was the release of the Nunavut Wildlife Management Board's *Nunavut Wildlife Harvest Study*. As will be touched on in the next chapter, the report provides in-depth participation rates in wildlife harvesting providing greater insight into the Nunavut's natural capital as it supports the land-based economy.

Despite this additional information, knowledge gaps remain on Nunavut's natural capital; the latest concerning the number of polar bears and size of the

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³² Jared Diamond, *Collapse* (Viking, Penguin Group: Toronto, 2005), p. 341.

³³ ACIA, *Impacts of a Warming Arctic: Arctic Impact Climate Assessment*, Cambridge University Press, November 2004.



Peary caribou herd. As such, we are seeing disagreement on their numbers between government biologists and Inuit hunters.

Closely related to this issue is the fact that Nunavut's natural capital does not operate in isolation. In the case of polar bears, it is believed that the lower numbers of bears in the Baffin region are partly a result of over-harvesting by Greenlanders.

The decisions Nunavut makes in these areas can have international repercussions. The United States has expressed concern over the increase in the number of polar bears Nunavut is allowing for harvesting. That country is now considering a change in its endangered status of polar bears that would prevent American hunters from importing trophy animals. The change would all but eliminate this lucrative economic activity in Nunavut.

While climate change is beyond the control of Nunavummiut, there is still action and choices that its citizens can take to mitigate its impact on Inuit society. In his recent study of past and present civilizations, Jared Diamond notes that climate change and poor environmental stewardship were among the major contributing factors underlying societal collapse. He tells how the Inuit in Greenland adapted to their environment, whereas the Vikings in Greenland did not and eventually perished, despite the two peoples living in close proximity to one another. Societies, through their policy choices and actions, can determine whether they have a positive or negative influence on the environment. Nunavummiut face important policy choices of their own regarding their natural capital that will impact their future success in the region in the years to come.

So what actions are being taken in Nunavut? The Government of Nunavut developed a *Climate Change Strategy* in 2003 and subsequently signed a Memorandum of Understanding for Cooperation on Climate Change with the Government of Canada later that year. The Government of Nunavut's plan for the next term of office, *Pinasuaqtavut 2004-2009*, identifies the need for the government to:

- place a higher regard on all environmental issues;
- implement the Nunavut Climate Change Strategy; and,
- conserve and reduce the use of energy and find alternatives to diesel fuel for electricity generation.³⁴

These actions will be necessary in light of the pressures on Nunavut's natural capital. In addition to climate change, Nunavut will experience a significant increase in demand for energy due to projected industrial developments that will be discussed in further detail in the next chapter.

³⁴Government of Nunavut, Pinasuaqtavut 2004-2009: Our Commitment to Building Nunavut's Future. Iqaluit 2004.



But there is also a need to reduce energy demand. Nunavut has implemented few alternative energy projects compared to other jurisdictions to date. For instance, Greenland is moving toward supplying half of its energy needs by hydroelectricity. Nunavut is catching on though, with the new Qikiqtani General Hospital planning to use waste heat from the near-by power plant as its main source of heating. Energy and other resource saving campaigns can also work and have led to significant reductions in some jurisdictions.

With respect to housing, the question can be asked as to whether all residents require or desire to live in single dwelling units. Living units that share common heating and water systems can reduce consumption through greater use of waste heat and water and by more efficient distribution. This can also reduce costs. Nunavut Housing Corporation is answering this call with the introduction of new designs in housing that are more in tune with Inuit needs, but which are also safer, more efficient, and cheaper to build. Innovations such as these must be applauded, especially in light of Nunavut's housing strategy discussed earlier.

In summary, more information on the state of Nunavut's natural capital is becoming known. The lack of data is no longer the major story regarding the Territory's natural capital. Instead, Nunavut's leaders must now turn their attention to:

- 1. How to mitigate pressures and demands on Nunavut's natural capital in light of a growing population and economy, and changing lifestyle preferences; and.
- 2. How to manage the changing environment as a result of climate change.

The positive news is that Nunavut still has time to prepare and it also has control in how it responds to these two forces. It also has an opportunity to play a leading role in climate change research and monitoring both for Canada and for the international community.

³⁵ Northern News Service Ltd., Opportunities North, 2005, *Made in Nunavut*, article by John Curran.



5 UPDATE ON NUNAVUT'S "MIXED ECONOMY"

In this chapter, the economic activities are reviewed since they were last reported on in the 2002 Update. Included are those activities classified as "land-based" or traditional. In Nunavut, more so than any other jurisdiction in Canada, land-based activities are critical to the overall economic success of the Territory. They provide productive opportunities, induced income in the form of food and clothing, and have significant cultural value to Inuit society.

This is followed by a detailed account of Nunavut's domestic wage-based economy.

5.1 THE LAND-BASED ECONOMY

Previous reports including the Outlooks have provided detailed accounts of the importance of land-based activities in Nunavut. But despite this importance, its actual size and value has remained largely unknown due to a lack of information. As a result, most discussions and even policy decisions are being made on what can only be anecdotal evidence. In late 2004, this changed with the Nunavut Wildlife Management Board's release of the much-anticipated *Nunavut Wildlife Harvest Survey*.

The survey results provide a detailed account of each and every species harvested along with the number of harvesters by community on a monthly and yearly basis over a five-year time period, from 1996 to 2001. While far too detailed to present all the findings here, an example of the results include the average harvest size for caribou (24,522), ringed seal (25,086), and arctic char (198,611).

Its value and application to Nunavut's socio-economic performance and potential will become more and more apparent when additional statistical, economic and social research is applied to the data. Some very important investigations may now take place:

- more accurate calculation of the dollar value of the subsistence harvest;
- wildlife harvesting's share of whole economy;
- changes in wildlife harvesting participation rates; and,
- insight into the present and future issues of food autonomy and food security in Nunavut communities. 36

From a wildlife management perspective, the survey results will grow more and more useful as subsequent surveys are conducted providing a greater perspective of any changes over time.

³⁶ The issue of food autonomy was formally recognised in the Nunavut Economic Development Strategy with the call for a *Commission on Food Security* to be established by 2008. With the release of this survey's results, this Commission has a legitimate starting point from which it could conduct quality research.



Still missing from Nunavut's land-based economic data are specific evidence of the Territory's arts sector and cultural industries. Currently, only a loose collection of historical survey results exists. For instance, it is generally believed that roughly 3,000 to 4,000 Nunavummiut participate in the arts sector or cultural industries.³⁷ But we don't know the value of what they produce. The cost of production and the level of effort in that production are not known. If Nunavut is serious about nurturing this sector within its economy, an investment and dedication similar to the wildlife survey is needed. A call for this level of support was made in the *Nunavut Economic Development Strategy*:

We need to update our understanding of the size and economic potential of the arts economy and the cultural industries in Nunavut. Product development and marketing of visual and performing arts, creative writing and film need to be addressed. We need a plan of action for the entire sector, including a strategy for training and art education and for the development of physical infrastructure. ³⁸

In response, the Government of Nunavut is expected to begin public consultations this summer as a preliminary step in designing and implementing an Arts and Crafts Strategy. It is hoped that this work will include a comprehensive data collection component.

As touched on in the human capital section, there is a non-economic value to the land-based economy that is also important. While it would be difficult to quantify in terms of a monetary value, one cannot overlook its meaning to the lives of many Nunavummiut as an important contributor to a high quality of life.

5.2 THE WAGE-BASED ECONOMY

The original *Nunavut Economic Outlook* was formulated on a single data point for 1999. There are now six years of economic data. This is not enough to develop extensive econometric estimations, but with every passing year we gain greater insight into Nunavut's economy and the economic relationships that exist, and grow more confident in the quality and consistency of data.³⁹

By and large, Nunavut's economic performance has lived up to expectations. The forecast presented in the 2002 Update predicted Nunavut would enter into a period of economic decline from 2001 to 2003 amounting to $8\frac{1}{2}$ per cent over the two years as a result of the closures of Nanisivik and Polaris. The report also explained how this decline would not have the local effect normally

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³⁷ Nunavut Art and Crafts Association.

³⁸ Nunavut Economic Development Strategy: Building a Foundation for the Future, Sivummut Economic Development Strategy Group, June 2003, p. 12.

³⁹ The small size and nature of Nunavut's economy means data quality is a real concern, and remains as such. However, with an increasing number of data points, we can more easily detect outliers. Of course, this does not help us if the time series has been consistently inaccurate from the start.



associated with mine closures since few Nunavummiut received direct benefits from the operations. So, while gross domestic product was expected to fall, local economic activity would continue to grow.

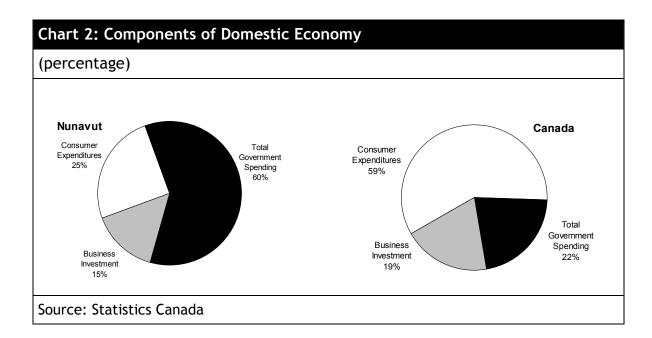
Statistics Canada verified this forecast with the release of its territorial economic accounts for 2004 (see Table 4). Nunavut's expenditure-based gross domestic product (GDP) fell by $9\frac{1}{2}$ per cent from 2001 to 2003, before posting a gain in excess of 3 per cent last year.

	1999	2000	2001	2002	2003	2004
Gross Domestic Product	772	850	891	911	806	831
Personal expenditure on consumer goods and services	330	348	361	382	396	414
Durable goods	19	21	23	24	26	28
Semi-durable goods	38	41	44	47	50	53
Non-durable goods	94	97	99	104	102	107
Services	179	189	195	207	218	226
Net government current expenditure on goods and services	614	642	708	769	849	852
Government gross fixed capital formation	97	96	112	72	108	93
Structures	80	73	87	64	94	79
Machinery and equipment	17	23	25	8	14	14
Business gross fixed capital formation	163	144	152	177	195	273
Residential structures	31	33	18	40	32	31
Non-residential structures	81	70	81	90	97	162
Machinery and equipment	51	41	53	47	66	80
Domestic Demand	1204	1230	1333	1400	1548	1632
Exports of goods and services	286	357	343	316	110	114
Exports to other countries	221	291	280	252	43	44
Exports to other provinces	65	66	63	64	67	70
Deduct: Imports of goods and services	719	749	793	806	868	908
Imports from other countries	216	219	239	245	274	295
Imports from other provinces	503	530	554	561	594	613
Net Exports	-433	-392	-450	-490	-758	-794
Gross Domestic Product	772	850	891	911	806	831
Economic Growth		10.1%	4.8%	2.2%	-11.5%	3.19
Source: Statistics Canada's 2004 Territorial Economic Accounts						

5.2.1 The Domestic Economy

The overall characteristics of Nunavut's domestic economy have not changed much in the last three years. Including its spending on capital projects, government's share of domestic expenditures remained close to 60 per cent in 2004 (see Chart 2). Meanwhile consumer activity accounts for 25 per cent and business investment makes up the remaining 15 per cent. This is opposite from Canada as a whole, where 60 per cent of the economy is taken up by consumer spending on goods and services with government's spending contributing just over 20 per cent.





Government Faces Temporary Halt in 2004

Observations from Statistics Canada's economic accounts reveal many interesting stories from the past year. Perhaps most notable is the drop in government's contribution to Nunavut's domestic economy. In 2004, the public sector, which includes federal, territorial and local governments, spent \$12 million less in real terms than one year earlier (\$945 million in 2004 compared to \$957 million in 2003). This drop may not seem significant in itself, but it does mark the first time real government spending has fallen since the Territory was formed in 1999.

Coupled with the public sector's dominant role in the economy, this small setback could easily have brought about a second year of economic retrenchment in Nunavut. This was averted by a significant jump in private non-residential investments.

The original *Nunavut Economic Outlook* acknowledged the economy's reliance on the public sector and suggested that the long-term prospects for economic growth were not good for Nunavut if it were based entirely on government expansion. Specifically, the original report said that Nunavut could expect public sector growth to exceed a sustainable rate for the Territory's first five to ten years, after which it would need other sectors to step forward in order to keep the economy growing at a pace that at least matched population growth.



So far this has been true. The territorial government has systematically received more and more transfers from Canada each and every year allowing it to expand its capital and operations spending (See Table 5).

And while the one-year fiscal stagnation for the government is not a signal that its days of rapid expansion are over, it does foreshadow that day in Nunavut's future. If all goes as planned, Nunavut will receive over \$29,000 per person in transfers from the Canadian taxpayer this year.

This does not include the \$240 million, or \$8,000 per person, the Territory receives in personal transfers for income support such as employment insurance and other forms of social assistance. At this

Table 5: Support for Government						
Expansion in Nunavut						
(federal transfers, \$, millions)						
Transfers Per Capita						
1999/2000	574	21,266				
2000/01	627	22,672				
2001/02	664	23,483				
2002/03	730	25,313				
2003/04	782	26,720				
2004/05	848	28,420				
2005/06(f)	891	29,107				
Source: Statistics Canada, Government of						

level of support, the question may soon be asked, "How much is enough?"

We maintain the projection from the original Outlook that government has some room left to expand. The federal government continues to preside over surplus budgets and pressure to share with the regions continues to be strong. For Nunavut's part, it too is pressuring for more money:

- The Government of Nunavut and Nunavut Tunngavik Inc. have submitted a proposal to the Government of Canada for \$1.9 billion over ten years for support in eradicating the Territory's housing crisis;
- Nunavut Tunngavik Inc. is working to renew the Land Claims Implementation contract with the federal government; while,
- numerous government departments along with other non-government agencies are lobbying for more funding.

Not every request will result in more transfers to the region, but Nunavut does have many credible arguments for "Building its Foundation" that will attract attention. But we are reminded that over the forecast period, population growth will slow as a result of slowly declining fertility rates, which will have a direct impact on the growth of public sector revenues and thus the growth of government programs.

Where did all the capital spending come from?

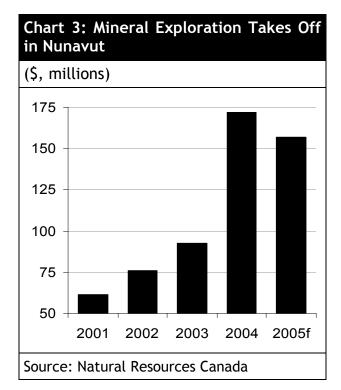
Perhaps the second most surprising change apparent from the 2003 and 2004 data has been the emergence of private-sector investment, growing by an average of 27 per cent during the two-year time period, and 40 per cent in 2004 alone. Furthermore, the details reveal this spending was not on housing,



as one might have expected. The growth has come primarily from non-residential investments, and machinery and equipment.

The single largest private-sector activity in terms of spending has been mineral exploration (see Chart 3). The past two years have seen an explosion in fieldwork with spending topping \$172 million in 2004. And with \$157 million worth of planned spending in 2005, Nunavut will remain one of the most active regions in the country in terms of exploration.

The immediate impact exploration work is difficult to trace since it don't show up under mining. Instead, exploration expenditures benefit multiple areas of an economy such as industrial equipment providers, communications, transportation, retail and hospitality. The extent to which the local labour force can



find employment at exploration camps or through the associated service industry influences the real impact these expenditures have on a region.

On the other end of a mine's life, reclamation work began at Polaris and Nanisivik in 2003. These projects are worth \$53 million and \$9 million respectively. The bulk of this spending took place in 2003 and 2004 with both projects expecting 2005 completion dates.

Interestingly enough, hospital construction is likely the next largest contributor to private-sector spending. This is because the \$22 million Regional Health Centre in Cambridge Bay was built with private-sector money on behalf of the Government of Nunavut, with the vast majority of spending taking place in 2004. The original plan was for the government to lease the building, but instead the government chose to purchase the facility once it was built. The even larger Qikiqtani General Hospital in Iqaluit is being built under similar arrangements. This \$46 million project is being developed on behalf of the Government of Nunavut by Qikiqtaaluk Corporation;⁴¹ again with a large portion of the activity taking place in 2004.

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⁴⁰ Overview of Trends in Canadian Mineral Exploration 2004, Canadian Intergovernmental working Group on the Mineral Industry.

⁴¹ Northern News Services, Opportunities North 2005, *A \$46 Million Hospital for Nunavut Capital*. Stephen Burnett.



Job growth continues and results in the release of pent-up demand

The public sector accounted for most of the job creation in 2004. Between bureaucrats, educators and health-care workers, 450 new positions were created (See Table 6). ⁴² Smaller gains occurred in construction, wholesale and retail trade, and transportation.

	2000	2001	2002	2003	2004
Construction	531	524	593	621	635
Other (incl. primary, manufacturing, utilities*)	818	981	933	757	603
Goods-Producing industries	1,349	1,505	1,526	1,378	1,238
Wholesale and Retail Trade	937	1,004	1,056	1,208	1,318
Transportation and Warehousing	429	507	516	431	466
Health care and Social Assistance	1,312	1,473	1,535	1,690	1,97
Accomodation and Food Services	288	224	286	435	48′
Public Administration	2,171	2,492	2,719	2,857	3,02
Territorial Public Administration	906	1,065	1,063	1,070	1,058
Other (incl. Federal, Local and Defence)	1,265	1,427	1,656	1,787	1,96!
Other (incl. finance, business, arts, etc.*)	2,025	2,401	2,562	2,865	2,792
Service-producing industries	7,162	8,101	8,674	9,486	10,05
Total Industrial Aggregate	8,576	9,722	10,354	11,055	11,41

^{*} Omitted data has been supressed under the Statistics Privacy Act

Source: Statistics Canada

Even with this expansion, the Territory's government reported 571 positions remained open as of December 31, 2004.⁴³ This is in addition to the Department of Education's announced plans to hire 80 new staff members to lower student-to-teacher ratios and provide more attention to special needs children. It also excludes the Department of Health's planned staff increase associated in part with the new health-care facilities.

Construction at the Jericho mine site is expected to be in full swing this summer, employing over 100 people. These workers will make way for a similar number of miners and plant workers by 2007. Further growth in these job categories will depend on whether or not the mines at Meadowbank and Hope Bay open later this decade.

⁴² According to Statistics Canada's Survey of Employment, Payroll and Hours (SEPH).

⁴³ Government of Nunavut, Human Resources, Training, and Development, *Towards a Representative Public Service*, Statistics as of December 31, 2004.



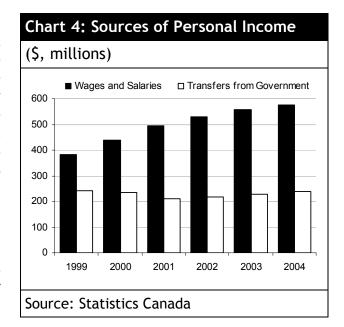
With employment growth averaging 5.9 per cent compounded annually over the past five years, personal income has grown by an average of 8.5 per cent (see Chart 4). At the same time, income support remained relatively stable. These trends are expected continue over the medium term.

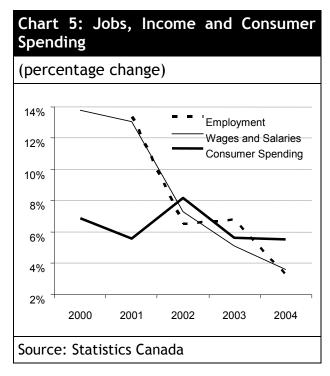
Higher incomes have translated into greater consumer activity. In fact, real consumer spending has expanding at been a consistently above that of population-4.6 per cent compared to 2 per cent, respectively. Moreover, much of the spending increases have been on durable and semi-durable goods at 8 per cent and 6.9 per cent signalling that some pent-up demand exists in consumers (see Chart 5).44

The rise in consumer activity should also be attributed in part to a greater variety of goods and services available through an expanded retail sector, which is especially prevalent in Iqaluit.

Summary of Changes in the Domestic Economy

At 6.3 per cent real growth, Nunavut's domestic demand which is the total expenditures made by consumers, governments and





business in the local economy, is progressing at a healthy pace. Job creation is strong and income levels are rising as a result of government *and* private industry expansion. Nevertheless, we should not forget that Nunavut is still home to serious unemployment problems and will require many more years of strong growth before its domestic economy can be considered fully developed.

⁴⁴ Durable and semi-durable goods include such things as vehicles, furniture, and clothing.



6 RENEWED ECONOMIC OUTLOOK FOR NUNAVUT

The next few years will be critical but exciting ones for Nunavut. In the 2002 Update, the focus was on the economic slowdown and the need to prepare the Territory for the next period of growth. This period of growth is now. Table 7 provides a detailed account of Nunavut's historical economic progress.⁴⁵

,	1999	2000	2001	2002	2003	200
Fishing, Hunting and Trapping	0.4	0.7	0.7	0.9	0.9	0.7
Mining and Exploration	135.6	171.5	157.3	139.5	1.7	1.5
Utilities	7.3	7.7	8.6	7.8	5.7	5.9
Total Construction	81.9	76.4	81.6	85.9	90.5	108.9
Residential Construction	11.2	11.9	7.5	16.7	13.5	13.9
Non-residential Construction	24.6	16.6	31.3	27.6	36.7	51.2
Repairs	15.5	14.5	12.6	12.0	12.8	12.2
Manufacturing	1.0	1.6	1.7	1.7	2.3	1.9
Goods-producing Industries	226.2	257.9	249.9	235.8	101.1	118.
Wholesale Trade	2.5	2.8	3.0	3.6	2.3	2.4
Retail Trade	26.4	28.4	30.3	32.7	34.4	35.8
Transportion and Warehousing	24.1	25.5	25.0	26.3	26.2	28.
Information and Cultural Industries	x	25.7	30.4	33.9	36.4	37.
Finance, Insurance, and Real Estate	95.6	100.8	113.9	123.4	129.4	130.
Business Services	7.2	6.9	9.2	9.7	10.3	10.
Administrative and Support Services	6.8	6.9	8.0	8.0	8.2	8.
Education Services	x	80.5	88.0	90.8	93.9	94.
Health Care and Social Assistance	55.4	46.8	54.5	55.0	55.8	55.
Hospitals	44.1	42.9	49.6	49.7	50.1	49.
Arts, Entertainment and Recreation	x	1.6	1.6	1.6	1.4	1.
Accomodation and Food Services	14.4	14.6	13.7	15.4	16.2	16.
Other Services	9.1	7.6	8.5	8.9	9.3	9.
Public Administration	167.8	205.1	214.8	220.8	227.2	227.
Federal	24.2	29.4	35.4	37.4	36.6	36.
Territorial	81.7	111.7	114.9	120.4	125.9	125.
Local, municipal and regional	58.6	60.7	61.1	59.1	60.8	62.
Service-producing Industries	х	553.2	600.9	630.1	651.0	657
Gross Domestice Product	734.4	805.2	850.0	873.4	810.3	833.
Economic Growth		9.6%	5.6%	2.8%	-7.2%	2.8
Source: Statistics Canada						

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⁴⁵ The latest Economic Accounts released by Statistics Canada have not properly accounted for the economic production at Lupin in 2003 and 2004. After closing in early 2003, the mine reopened six months later. Company reports released by New Kinross show gold production in 2003 equalled 56,000 ounces. Figures for 2004 were not available at the time this Update was written, however, company estimations of gold reserves in the mine's pillars was set at 110,000 ounces. If New Kinross were able to extract all or most of that gold before it shut down, mining output for 2004 should reflect that production, as it should for the production in 2003. If Statistics Canada revises its accounts in November, it could alter the growth profile of the revised forecast described in this chapter.



In the early stages of the forecast period, the public sector will provide new opportunities for employment and fuel much of the Territory's growth. But headlines are already turning to three other areas: fishing, mining and construction.

The fishing industry recently received a major boost in the form of a \$5.1 million training program for 180 prospective fishers over three years with a guarantee of 50 new private-sector jobs—a number that officials believe will rise to 80. Meanwhile, Nunavut will soon have its first new mine opening in over 20 years. This is not just another mine. With an Inuit Impact and Benefit Agreement already signed between the mine owner and the Kitikmeot Inuit Association, it represents a new era in mining; one that will include a sizeable Inuit workforce, training programs, and local outsource contracts. If all goes well, we should expect its success to translate into more mines in the future. Housing construction is the third potential economic driver for Nunavut. Both NTI and the Government of Nunavut are serious about their 10-year, \$2 billion housing strategy and are pushing hard on the federal government for support. New funding, even if short of the target, will mean a major boom for Nunavut's residential contractors.

The challenge will be to find local people with the necessary skills; something that is made more difficult because of the increased number of job opportunities throughout the Territory. This challenge will test whether or not the Territory has indeed prepared itself for this period of growth.

In this chapter, we consider a revised outlook for Nunavut beginning with a look at some international economic highlights to provide some context for Nunavut's economy.

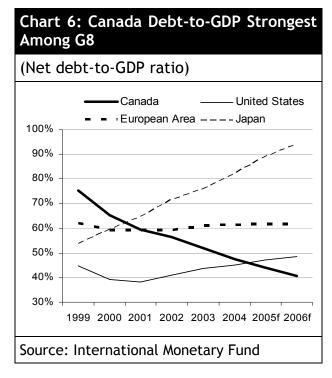
6.1 INTERNATIONAL ACTIVITIES

Economic activities and events around the world have a profound impact on Nunavut and its economy, though they might not always be obvious to the casual observer. There are literally hundreds of examples. A few are presented below:

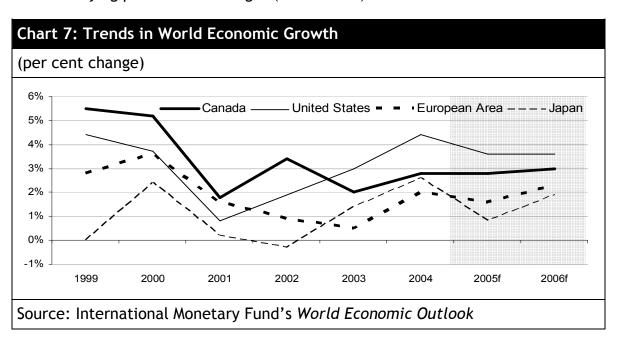
- The rapid economic growth in China and India has increased the world demand for industrial materials driving up their price. This has spurred the jump in exploration activity in Nunavut.
- The Asian economic expansion coupled with the conflict in the Middle East and a greater frequency of extreme weather has contributed to a worldwide shortage in oil. The subsequent rise in price is now being felt through higher pump prices and in Nunavut's heating and power costs.
- Climate change is believed to be a result of green house gas emissions that
 are produced in part by automobiles and factory discharge. The impacts of
 climate change will be seen in the polar regions sooner than anywhere else.



- Here in Canada, the federal government has generated surplus budgets for several years—a far better performance than any other G8 country. In fact, in the mid-1990s Canada presided over one of the worst debt-to-GDP ratios in the G8 and now sits poised to have the best of that group (see Chart 6).
 - This turnaround is providing the Canadian government with a number of spending options. It is why transfers to the regions have gone up dramatically, why taxes are falling, and why there is more money for health care. Assuming government continues along this trend, it seems likely it will continue to share its wealth with Canadians.
- The Mad Cow Disease crisis in Canada's beef industry almost resulted in the end of Nunavut's commercial caribou exports to the United States. This list could continue. But it shows there is no escaping Nunavut's connection to the world economy. For that



reason, it is important to remain abreast of changes in international markets and understand where the next opportunity might lie as well as identifying potential challenges (see Chart 7).



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6.1.1 Retiring Baby Boomers offer a Market for Nunavut Tourism

Where Nunavut stands to gain directly from international growth in wealth is tourism. Ageing populations in North American and Europe mean more tourists with more money. However, there is world-wide competition for tourist dollars and Nunavut will need a focused effort if it is to capture its share of this market.

Current data on tourism in Nunavut is poor. For instance, there is only anecdotal evidence of the value cruise ships bring to local economies—with passengers spending \$5,000 or \$10,000, and sometimes more, during community stops.

The 2002 Update spoke of a need for the Government of Nunavut and Nunavut Tourism to improve their relationship by properly articulating their roles and responsibilities. It appears this organisational issue remains today and an integrated tourism strategy remains a work-in-progress. No doubt this is resulting in lost export revenue—something most communities can ill afford.

Also in the 2002 Update was the assumption that tourism activity would improve in the later years of the current decade, becoming a more noticeable component of the economy by 2011. The Territory's inability to orchestrate a united approach puts some doubt into this forecast. It was decided to maintain the previous assumptions in this regard, but it does represent a downside risk to the forecast.

6.2 FISHERY BUILDS ON SUCCESS, LOOKS TO THE FUTURE

Armed with the *Nunavut Fishing Strategy*, Nunavut's fishery must now get to work on implementation. The new strategy reflects the assessment made in the original *Nunavut Economic Outlook* that focused on capital investments and the need for greater participation. In the past five years, Nunavut has achieved some successes worth noting that provide the Territory with a strong position to begin implementation of its new strategy.

Organisational Capital: The Baffin Fisheries Coalition formed to present a united voice to the needs of fishing interests. It represents 10 groups including community Hunters and Trappers Associations, processing plants and other interested parties. The Territory has also succeeded in expanding its overall quota through effective lobby efforts.

Natural Capital: New science has resulted in expanded turbot limits in more northern waters.

Physical Capital: Last year the Baffin Fisheries Coalition leased a full-sized factory trawler to harvest Nunavut's quota. The territorial government has submitted an application to its federal counterpart for assistance in constructing several breakwaters throughout the Territory. Talk of constructing full marine service facilities is ongoing.



Human Capital: Most recently, the governments of Nunavut and Canada, the Baffin Fisheries Coalition, Inuit organisations and the private sector signed a comprehensive fisheries training initiative.

We investigate some of these outcomes and their impact on the fishery's future starting with the all-important access and a review of the fisheries' value.

6.2.1 Nunavut's Share of the Industry

Access is one of several issues addressed in the *Nunavut Fisheries Strategy*, but perhaps the most important. Whether fished by Nunavummiut or others from outside Nunavut, without the quota there can be no fishery. In 1999, Nunavut owned 27 per cent of its adjacent turbot fishery. As of December 2004, this quota had expanded to 60 per cent (5,900 tonnes). And then earlier this year, the federal fisheries minister announced the creation of a new in-shore fisheries management zone in Cumberland Sound and allocated 500 tonnes to the area bringing Nunavut's allowable catch up to 6,400 tonnes. The 'landed-value' of turbot over the past year has averaged approximately \$2,500 per tonne making Nunavut's annual quota worth \$16 million with the entire fishery worth \$26 million. Nunavut's allocation for shrimp has remained at a lower level, now at 31 per cent which represents 10,700 tonnes from a total allowable catch of 34,000 tonnes.

Nunavut recently took the federal government to court over the latest allocations in the shrimp fishery and lost. It is therefore unlikely that the region will see an increase in its quota in the short term. However, the Department of Fisheries and Oceans has indicated it will review fishing in the Davis Strait later in 2005. This might lead to a change in its management practices. The forecast assumes any new allocations will be offered exclusively to Nunavut.

6.2.2 Getting Local Involvement

Jobs are the most direct economic benefit of the industry and are what most Nunavummiut identify as a priority for their communities. But the industry occasionally struggles to find capable labour. The *Nunavut Fisheries Strategy* recommended a human capital development initiative to address a broad spectrum of labour force requirements including recruitment, retention, training, workplace safety, job creation versus mechanization as well as cultural sensitivities.⁴⁶

In April, the federal government announced a partnership with the Nunavut government, Inuit organisations, the Baffin Fisheries Coalition and private industry to deliver the *Nunavut Fisheries Training Initiative* through their Aboriginal Skills and Employment Partnership program. In their announcement, representatives outlined the contents of this new initiative:

⁴⁶ Government of Nunavut and Nunavut Tunngavik Inc., *Nunavut Fisheries Strategy*, March 2005.



The training will range from basic upgrading and lessons on career opportunities in the fishing industry to training for entry-level positions, such as deckhand and factory workers, and from technical certificate training for mates and engineers to diploma program training for fisheries observers and administrators. Career counselling, case management and retention activities are also priorities to help ensure that as many Inuit complete their return-to-work action plan. An at-sea mentorship program will also be developed and implemented to increase job retention.⁴⁷

The program will cost \$5.1 million and aims to train up to 180 individuals over three years. The program requires private interests to make at least 50 jobs available to graduates, but expectations are for that number to reach 80. This target is included in the forecast assumptions.⁴⁸

6.2.3 New Infrastructure

As described in the previous chapter, the Baffin Fisheries Coalition entered into a two-year lease agreement with an Icelandic fishing trawler with aims to purchase the vessel outright over time. This boat answers the call for Nunavummiut wanting a more hands-on approach in its fishery. The Inuksuk One as it's been renamed employs a crew of 28 when fully operational, can harvest turbot or shrimp, and is capable of remaining at sea for months on end.

On a smaller scale, the Hunting and Fishing Organisation from Qikiqtarjuaq has broken away from the Baffin Fisheries Coalition, arguing that its focus should be on the in-shore fishery where more Inuit have expressed interest. They formed the Masiliit Corporation that then purchased a large in-shore trawler to fish a portion of the overall quota. Qikiqtarjuaq hopes to develop its own processing operation to service this vessel's catch along with that of its entire in-shore fleet. Most recently, Masiliit has announced it is looking at a second vessel.

While the actions of Qikiqtarjuaq will likely result in some conflicts over issues of quota licenses, subsidies, and government programming, such conflicts were bound to occur once the opportunity of a real fishery was established through the expanded quota in Division 0A. The hope is that through this will emerge a healthy and mature Nunavut fishery.

6.2.4 Value-added Processing

The primary processor of Nunavut's turbot allocation is located in Pangnirtung. Last year, the plant processed over 775,000 pounds of turbot and another 64,000 pounds of Arctic char worth an estimated \$2.4 million while creating 42

⁴⁷ Government of Canada, *Governments of Canada and Nunavut launch project with Nunavut Fisheries Training Consortium*, Press Release: April 27, 2005.

⁴⁸ It should be noted that a severe shortage of data prevents a full employment forecast.



jobs.⁴⁹ With this, the plant lost an estimated \$655,000 after receiving \$260,000 in direct government subsidies and \$180,000 in capital contributions.

Clearly the fish plant struggles financially. Its machinery sits idle for long periods of time and thus cannot take advantage of its potential economies of scale. Getting more fish has been a challenge given the plant's reliance on local in-shore fishers primary supplier as occasional deliveries from the off-shore fishery. With the newly-created Cumberland Sound in-shore fishing area and the actions of Baffin Fisheries Coalition it would seem the plant should have an opportunity to better utilize its equipment.

However, there are issues with the Baffin Fisheries Coalition delivering turbot to Pangnirtung Fisheries Ltd. As members of the coalition, the plant receives

Exhibit D: Processing Northern Foods is a Tough Business

Losing money is not unusual for Nunavut food processing plants. Only the Kivalliq Arctic Meats turned a profit of \$165,000 last year, but only after receiving \$310,000 in direct subsidies and another \$105,000 in capital contributions from government. Furthermore, it purchased 170,000 pounds of caribou meat from the Southampton Island harvest that was itself subsidized to the tune of half a million dollars.

Kitikmeot Foods lost \$28,000 in 2004 on Arctic char and caribou sales worth \$525,000 and subsidies totally \$435,000 (including cash and capital contributions). The fortunes of the Cambridge Bay plant should improve next year with the return of muskox harvesting. The hunt is expected to produce up to 300 animals for slaughter.

From their combined efforts (including Pangnirtung Fisheries), 84 direct jobs were created in addition to the numerous small commercial harvesters that earn seasonal income through sales to these plants.

Source: Nunavut Development Corporation, Annual Report 2004

turbot free-of-charge. This would clearly impact the profitability of the vessel's operations. At the same time, without this provision, the processing plant would certainly lose more money. However, with public support going to both activities, it perhaps does not matter which is subsidised.

The industry and the Baffin Fisheries Coalition are caught in a difficult situation. For the trawler to turn a profit, it can't be providing its catch to customers at no cost. However, paying market value for off-shore turbot would cripple the processing plant. Furthermore, without the value-added processing, the real impact of the fishery on Nunavut's economy would be reduced considerably. A determination is needed on what Nunavummiut feel is an acceptable level of public support for the industry as a whole. This cannot happen until complete information on the costs and benefits of the industry are more widely known.

⁴⁹ Nunavut Development Corporation, Annual Report 2003-04 (www.ndcorp.nu.ca).



6.2.5 Fisheries Outlook

A lot of work will be needed before the fishery turns into the \$80 million industry as some proponents have suggested. The *Nunavut Fisheries Strategy* as well as most other documents on Nunavut's fishery, focuses on *potential* revenues, *possible* jobs, and the *most feasible* communities to expand processing activities. There is a real shortage of analysis addressing the critical questions of profitability, subsidisation, opportunity costs, and individual Nunavummiut interests. This has to be a concern.

In the original *Nunavut Economic Outlook*, some consideration was given to the cultural implications of commercial fishing, and it was asked whether the inshore fishery might hold more interest among Inuit. Indeed, the new strategy states:

Efforts must be taken to support community-based, inshore-fisheries development initiatives, particularly Arctic char and turbot fisheries. Community consultations have highlighted an overwhelming desire for this approach.⁵⁰

There is no mention of any prioritisation in the strategy. The recent actions from Qikiqtarjuaq suggest there are discrepancies of opinion and approach that need addressing. From the perspective of this Outlook, greater confidence would come from a clearer picture of how proponents envision the industry evolving over the next ten to fifteen years.

The Outlook assumes the coalition will find a way to purchase the Inuksuk One or at least will continue with the lease or find a new arrangement with another trawler of a similar size. Since the 28 positions on-board the trawler are currently available to Inuit, the purchase will have no real effect on the forecast, except through the vessel's capital depreciation. Profits would certainly impact the forecast however a lack of information precludes any assumptions in this area.

When it comes to fishing, GDP receives its largest boost from value-added processing. However, the largest plant in Nunavut has been unable to secure adequate volumes of fish and struggles financially. Without a significant increase in industry subsidies, this will not change. In the context of this Outlook and the need for monetary support in so many areas of Nunavut's economy, it is not likely the industry will see a rise in public support in the next two to five years. In the longer term, some rationalisation of the industry will likely occur, paving the way for a leaner and more financially responsible industry and some modest economic growth.

⁵⁰ Nunavut Fisheries Strategy, March 2005, page 22.



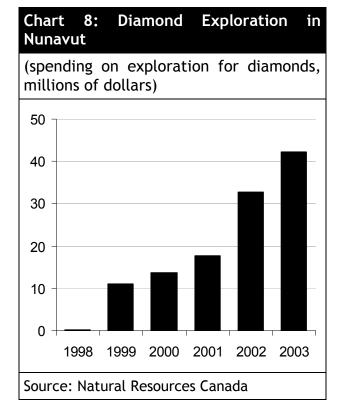
6.3 MINING'S SECOND COMING

In 2002, the near-term outlook for Nunavut's mining sector was bleak. Polaris and Nanisivik were closing, and Lupin was soon to follow. That reduced the industry to \$60 million and one based exclusively on exploration activities. Mining's contribution to the economy went from over 20 per cent to almost nothing, and the economy faltered, dropping over 7 per cent in terms of real gross domestic product at factor cost. ⁵¹

However, things weren't as bad as they seemed. The three mines employed few Nunavummiut. Impact benefit agreements existed, but were not enforced and resulted in no significant benefits to Inuit. Outsource contracts were essentially non-existent and the royalty schedule was of no consequence.

The talk in mining circles shifted to re-tooling the industry in a manner that would be more appropriate for Nunavummiut. Working from the Nunavut Land Claims Agreement and a new representative public government, mines in Nunavut will now open under tighter guidelines in terms of local hiring practices, service environmental contracts and safetv regulations. This will increase the mines' real impact on the economy, leaving more money and control in the hands of Nunavummiut.

While government officials did that, mining companies went to work exploring for new opportunities. The previous chapter highlighted the sharp rise in exploration activity climbing to a height of \$172 million last year,



fuelled by an insatiable quest for diamonds (see Chart 8).

This is despite Nunavut having generally poor geoscience data. These exploration expenditures are about to pay off with the development of new mines.

⁵¹ As noted earlier, Lupin's first closing was temporary and the mine was in production in 2003 and 2004. In terms of its meaningful economic impact (jobs, income, business opportunities), the reopening went virtually unnoticed in Nunavut. With the exception of a few employees from Kugluktuk almost all workers came in from outside the Territory.



6.3.1 Jericho Diamond Project

Nunavut is preparing for its first new mine in over 20 years and it will be a diamond mine. Tahera Diamond Corporation began moving materials and fuel into the site earlier this year, and construction should be ongoing over the next two years with the first diamond appearing by early 2007.

The economics of this operation are straightforward.⁵²

Investment: The operation is small in comparison to neighbouring diamond mines across the border in the NWT. Construction and site preparation costs are estimated at \$70 million and will span two years. This compares to the diamond mines in the NWT where investments are now approaching \$4 billion. No additional infrastructure is needed, since it will operate off the existing iceroad that was originally built to service Lupin, and now services Ekati and Diavik in the NWT.

Employment: Developing the mine itself will require a crew of 50 to 150 people, with similar numbers needed to construct the plant and other on-site buildings. Once up and running, Tahera will employ up to 120 miners, plant operators and other staff on a two-week rotational basis.

Production: Jericho is scheduled for eight years of production. Defined reserves total 2.6 million tonnes of kimberlite averaging 1.2 carats per tonne. The potential reserves are estimated at 5.5 million tonnes averaging 0.8 carats per tonne. The forecast is based on the estimated rather than defined reserves with an assumed price range between US\$75 to US\$88 per carat.

Operations: The mine will operate as an open pit, with the option of going underground to be assessed at a later date. The camp will consist of industrial trailers as opposed to permanent camp structures. Tahera has committed to a full reclamation process following the mine's life.

Partnerships: Tahera has signed on two important partners for its operation. Tiffany & Co. will provide a \$35 million loan facility to assist in the construction costs. In return, it receives exclusive rights to Jericho diamonds and will purchase a share of the overall production for its own manufacturing needs (a portion of which is located in Yellowknife) and sell the remaining stones in the international market on behalf of Tahera. ⁵³

The second partner is the Kitikmeot Inuit Association, with whom Tahera has signed an Impact Benefit Agreement. This agreement is a legal document that commits Tahera Diamond Corporation and the Kitikmeot Inuit Association to a list of activities and practices. Highlights of this agreement are provided below:

• Agreement to a Labour Force Development Plan, Training Plan and Education Plan that includes the creation of a list of labour force

⁵² Tahera Diamond Corporation, *Jericho Diamond Project*, (www.tahera.com/jericho_diamond.html).

⁵³ Further details are available from Tahera Diamond Corporation or Tiffany & Co.



requirements, identifying available Inuit workers and matching their skills with the available jobs, making the mine site a culturally-appropriate place of business for Inuit, committing to a set number of apprentices, and establishing a scholarship program.

- Employment targets have been set at 60 per cent Inuit staff in five years. Minimum education standards will be Grade 10. Points of hire will include Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, Kugaaruk and Yellowknife.
- Business opportunities will be available to Inuit firms through a bidding process that depends on the size of contract, with smaller contracts being more easily acquired.

This is a good re-introduction to mining for Nunavut. Perhaps most important, it is the first mine to open in Nunavut since its creation and signing of the *Land Claims Agreement*. It will test Nunavut's labour market, its social safety nets in communities, and its organisational skills. Success here will go a long way in promoting future developments.

6.3.2 Medium-term Prospects

Next on the horizon are two gold mines, Hope Bay near Bathurst Inlet and Meadowbank northwest of Baker Lake. These two deposits will be developed, but the question is when? Past Outlooks had assumed that Hope Bay would have begun construction this year or next, but its owner (Miramar) has struggled with their Environmental Impact Statement and has not yet received the necessary licences. A second statement is scheduled for completion this summer for submission to the Nunavut Impact Review Board, but it is not clear whether or not the company has completed the necessary work to gain the board's approval.

One of the challenges is Miramar's plan to mine the deposit known as Doris that contains 311,000 ounces of gold for two years and use the profits from that operation to expand into other deposits. The Nunavut Impact Review Board may not be comfortable with a licence application for two years of operations. The company might have to expand the scope of its project before receiving approval. This is the scenario included in the forecast, pushing construction back to 2008, but with the expectation that once operations commence, they will continue throughout the remainder of the forecast period.

It must be stressed that the measured and indicated reserves in this belt are 1.8 million ounces with inferred reserves adding another 3.6 million ounces. At today's gold price that has stabilised above US\$400, the full realisation of these deposits is worth in excess of \$2 billion. The forecast has used the known and indicated reserves to calculate the mine's output.

⁵⁴ *Nunavut Mining, Mineral Exploration and Geoscience 2004*, Government of Nunavut, Canada-Nunavut Geoscience Office, Nunavut Tunngavik Incorporated, and Indian and Northern Affairs collaboration.



A mine at the Meadowbank deposit was looking far less likely two years ago than it does today. The deposit has a new owner, Cumberland Resources, and new life. The company filed its Environment Impact Statement with the Nunavut Impact Review Board in January and is awaiting comments.

The company's feasibility study established the known deposit at 2.7 million ounces of gold, making it the third largest undeveloped known gold deposit in Canada. ⁵⁵ If and when licensing is approved, the mine is slated for 8.3 years of operations, but this lifespan will lengthen if new reserves can be identified through ongoing exploration.

Cumberland is now participating in discussions with the Kivalliq Inuit Association for an Inuit Impact and Benefit Agreement. This should result in some assurances the mine will operate under the appropriate guidelines and involve Inuit in its labour force and outsourcing contract.

Most recently, the Hamlet of Baker Lake has announced it is seeking an impact and benefit agreement of its own. This announcement from Baker Lake puts some doubt into the company's planned production start-date of mid-2008. The announcement signals that additional rounds of negotiations might be necessary. For now, the forecast has assumed that only minor delays will be incurred and Cumberland will be mining by early 2009.

The Outlook would be remiss if it didn't consider this announcement as a downside risk to the medium-term forecast. The experience of the Mackenzie Valley Pipeline in the Northwest Territories indicates even the most lucrative projects can be delayed, if not derailed completely as a result of excessive demands. The new regulatory environmental in Nunavut is very strong and ensures local benefits from new mining operations. But at the same time, mining is a private-sector activity and demands that reduce an operation's profits below an acceptable level will result in the closure of that project.

6.3.3 Long-term Outlook

The forecast includes the opening of three more mines beyond 2010. These are more speculative in nature, but the likelihood of a second diamond mine and a third gold mine are strong. Whether the diamond mine is situated near Jericho or on the Melville Peninsula is not known. Nor can we be certain whether or not the next gold mine will be Meliadine West or another deposit. Failure to include future development would not be prudent, especially given the strong outlook for mineral prices. Once mining infrastructure is in place including roads, mills and fuel storage, secondary deposits become economical and expansions are common. The forecast assumes a third mine in the final years of the long-term outlook opening as another shuts down. As is, including six mines over the 16 year forecast will stand out as a conservative estimate.

⁵⁵ Cumberland Resources, Meadowbank Project (www.cumberlandresources.com). And Overview of Trends in Canadian Mineral Exploration 2004, Canadian Intergovernmental working Group on the Mineral Industry.



Not included in the forecast and therefore representing an upside risk to the long-term outlook is the possibility of more gold and diamond mines, the development of uranium and rare earth deposits and, of most significance, the Mary River Iron Ore deposit on Baffin Island that would provide generations of Inuit with employment if it were developed. As time goes by, the results of more fieldwork will improve the accuracy of the long-range forecast.

6.4 Public Sector Expansion

The previous chapter hinted that the prospects for future growth in Nunavut's public sector are good.

The Government of Nunavut has recently renewed its Territorial Formula Financing (TFF) agreement with the federal government. According Canada's to Department of Finance, the new formula raises Nunavut per capita transfer to \$26,000 per person. This translates into a significant increase in revenues given Nunavummiut gave birth to a record 757 babies in 2004. with only 135 recorded deaths that year. The new TFF is in addition to the recent health-care accord and the announced economic support programs (see Exhibit E).

Exhibit E: Recent announcements on new federal transfers to the North

- Territorial expenditure bases will increase by \$150 million over five years to allow territories to target their priorities.¹
- The health transition fund was established following the 2003 First Ministers' Meeting and will provide an annual benefit of \$20 million.¹
- Budget 2004 provides \$90 million over five years through its new Strategic Investments in Northern Economic Development program that will support northern economic development. This money is to be divided equally between the territories.¹
- The Northern Strategy provides \$120 million over three years to the three territorial governments to develop their joint development strategy.²

Source: ¹ Federal/Provincial Relations, Dept of Finance, Govt of Canada. ² www.northernstrategy.ca

Thus, it seems certain the Government of Nunavut's revenues will continue to grow over the medium term, fuelling its economic expansion.

Interestingly enough, Nunavut previously gave considerable effort to lobbying the federal government for a renewal of their old Economic Development Agreement that expired in 1995. With the announced economic programs, the Territory has, in effect, received money equivalent to a new agreement. The question now is, "How and where will this money be spent?"

6.4.1 The Government of Nunavut's Budget shows a drop in spending?

The Government of Nunavut's budget shows a \$22 million reduction in expenditures for the 2005-06 fiscal year. This comes on the heels of the 2004 calendar-year that saw no real growth in public-sector output. However, we should not be fooled into thinking government's impact on the economy is diminishing as a result of the latest budget. Instead, an interesting shift in

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spending patterns is occurring this year that will see government's contribution to the economy grow at the local level.

In 2004-05, government spending on capital projects ballooned to \$169 million as a result of a number of projects coming to a head at the same time. This fiscal year, capital expenditures will fall back to a more sustainable level of \$102 million. Meanwhile, spending on operations and maintenance was \$788 million last fiscal year, but will climb to an estimated \$834 million this year.

In Nunavut, the economic impacts of most capital projects are low. They produce few indirect opportunities and carry a low value added to gross output ratio. For most capital projects much of the materials are imported as are segments of the workforce and, in some cases, the management team. Therefore, a large share of the total expenditure leaves the Territory without ever entering the local economy.

On the other hand, government spending on goods and services has a much greater impact on the local economy since a higher percentage of every dollar lands in the pockets of Nunavummiut. This is opposite of what you might find in southern Canada, where public infrastructure projects contribute more to real GDP than does spending on public-sector wages and salaries.⁵⁶

6.4.2 Public Sector Outlook

The shift in spending into operations will benefit three departments more than any others: education, health and community and government services. Combined, these departments will combine to receive \$39 million of the \$45 million increase. This means more educators, doctors, nurses and community-based programs.

The Minister responsible for education announced plans to increase the number of school staff by 80 people this year. The new employees will include 13 new teachers, 40 student support assistants and 14 custodians as well as additional language specialists, school counsellors and program support teachers that will be hired from within the communities. This initiative is the largest one-time increase in staff since the 1980s. ⁵⁷ In a similar move, the Department of Health and Social Services hopes to attract 8 more doctors and 100 more nurses to the region this year.

For the Outlook, this means strong economic gains in the education and health sectors—approaching growth of 10 per cent in each of the next two years. Public administration will expand at a more modest pace, unless the Government of Nunavut was able to make significant inroads on its reported 500 plus unfilled job openings. This possibility represents a small upside risk to the forecast, however history reveals that Nunavut's government has carried

⁵⁶ In no way are we implying capital projects are bad. Most, if not all, are absolutely critical. We are simply explaining the economics of different activities.

⁵⁷ Teachers, union hail Nunavut education hiring, CBC News (April 29, 2005).



this many unfilled positions for years and the probability of attracting that many new employees is slim.

6.5 CONSTRUCTION AIDED BY SPENDING IN MINING AND GOVERNMENT SECTORS

The construction industry in Nunavut grew by 20 per cent last year, and now represents 14 per cent of the region's real output. For this year, Statistics Canada's survey of capital spending intentions revealed \$415 million of activities are planned that should result in another year of strong growth in construction. A large percentage of this growth will be taken up by activities at Jericho, continued reclamation work at former mine sites, DEW Line clean-up work through INAC and National Defence, construction of the Qikiqtani General Hospital, as well as continued work on schools and housing.

The construction industry will fall back in 2006 as government moves its spending from capital projects to programming and a number of the major projects come to an end. This slowdown will be short-lived, however, as construction at Meadowbank is expected to be in full swing by 2007. Beyond that, the industry should follow a growth pattern that is aligned with mining developments.

The forecast does not include the construction of any of Nunavut's large-scale projects such as the \$200 million Bathurst Inlet port and road or the road linking Manitoba with the Kivalliq region. These represent upside risks to the forecast, especially the project at Bathurst Inlet which is the more advanced of the two.

6.5.1 New housing strategy would deliver heavy economic punch

A more significant unknown for this forecast in terms of real construction output is the Ten-Year Housing Strategy developed at \$2 billion (\$200 million per year) that was discussed earlier. If implemented, this one proposal would represent a boost to the real economy in the neighbourhood of 10 per cent annually over the next ten years. The forecast assumes this strategy will not be implemented to its full extent. It is not clear Nunavut has the capacity to build 5,730 new homes, while repairing, renovating and upgrading many more in a ten-year time span. The benefits of a housing project like this one (aside from the increased housing stock) are the direct, indirect and induced economic and employment opportunities it represents. If most of these benefits go to non-Nunavummiut, the Territory will lose out on a major component of the overall opportunity.

As mentioned in the previous chapter, the federal government has not agreed to new housing money. However, at the time this report was written, pressure

⁵⁸ The actual impact would depend on a number of assumptions such as the participation of local labour and small business.

⁵⁹ Capacity is not limited here to human resources. Nunavut's infrastructure including power generation, municipal works, etc. could not handle this increased stock of houses at present. Some communities are also facing shortages of gravel which would also limit activity.

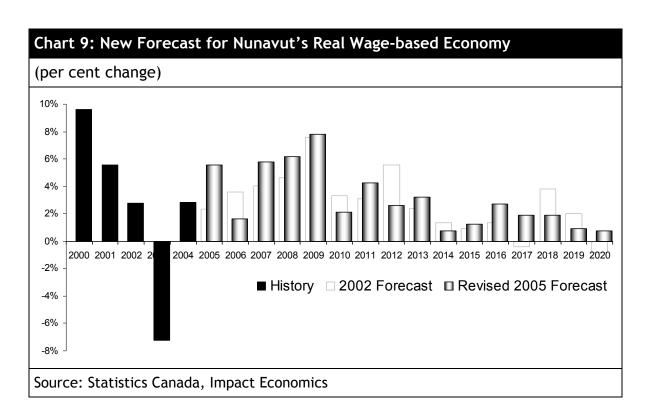


from Nunavummiut officials had resulted in an announced visit by the federal government interested in increasing its understanding of Nunavut's housing crisis. Whether it is a result of this visit or of further lobby efforts, the forecast does assume the existing \$40 million contribution agreement between the federal and territorial governments will be renewed, and later enriched, through future federal budgets.

These contribution agreements represent a difficult challenge for the Government of Nunavut. Matching \$20 million in contributions is not easy for a government of its size. Furthermore, the existing agreement does not include any provision for operations and maintenance. Community and Government Services along with Nunavut's Housing Corporation have identified this as a serious issue in many of the capital projects funded in part by the federal government, and must be addressed in any future agreement.

6.6 REVISED FORECAST

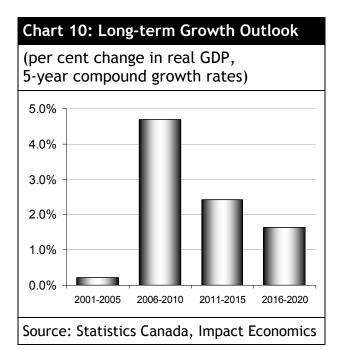
Having revised the timelines of the major projects expected in Nunavut over the next 16 years to 2020, and recalculating their value-added contributions to the economy, the forecast produced in the 2002 Update remains largely intact (see Chart 9). Similar to predictions made at that time, the economy did slow down over the 2001 to 2003 time period, with the initial signs of recovery coming in 2004. The economy is now set for a major expansion.





- The Outlook remains confident that government revenues will continue to grow over the medium term allowing further expansion of the public sector.
- The profile of mine start-ups has changed over the past two and half years, but not so much as to alter the forecast significantly—the impact of those mines developing slower than expected are being offset by others that are developing faster than expected. If anything, the Outlook has gained confidence in the mining forecast given the rise in interest as witnessed through the spending on exploration.
- Benefiting directly from activities in government and mining will be the
 construction industry that expanded by 20 per cent last year and will
 continue to grow this year before cooling somewhat in 2006. Housing will
 provide some stability to the industry in the years to come based on the
 assumption that public support for new housing will remain over the
 forecast period. However, this support will fall short of what would be
 required to implement the Territory's new housing strategy.
- Of course, all this activity means more jobs. Employment numbers should grow across the board in Nunavut with best near-term opportunities coming in construction, health, and education. Over the medium term, further job creation will come in the mining, public administration and retail trade sectors. Some opportunities should arise in the fishing industry as a result of the new training program however, less confidence surrounds industry expansion over the medium term.
- More jobs mean more income that will result in higher levels of consumption. There remains considerable pent-up consumer demand in Nunavut, and the new jobs will result in immediate consumer activity on everything from non-durable goods like food to durable goods such as vehicles and electronics.

With these factors considered together, the forecast of Nunavut's real economy was recalculated showing an expected expansion of 5.6 per cent in 2005 and over the five-year time period that follows, average real growth will be 4.7 per cent compounded annually (see Chart 10).





Beyond 2010, the economy should grow at a more sustainable pace, averaging 2 per cent over the final ten years. As mines close, others are expected to open. Construction will continue to follow the pattern set by these openings. Continued pressure on community infrastructure from the population ensures a fairly steady expansion of capital spending at the municipal level.

There are risks to this forecast as outlined throughout the report. Risks can represent possible additions to the forecast. Most often upside risks are projects that do not seem feasible at the present time or don't carry widespread support and therefore are not included in the forecast. However, if economic conditions were to change significantly, some of these projects may become more feasible and gain more support. Similarly, risks can represent reductions to the economic growth that was forecast. In most cases, downside risks are associated with assumptions in the forecast that fail to materialize. For example, it is assumed the Jericho Diamond Project will proceed because international diamond prices make the deposit economically feasible. However, if the price of diamonds were to fall, the mine at Jericho might be at risk of losing its support.

The most significant upside risk to the forecast is the possibility that the Bathurst Inlet Port and Road project receives approval from the Nunavut Impact Review Board and is able to raise the necessary capital to begin construction. As far as specific mineral deposits, mine development at the Mary River Iron Ore site represents a tremendous upside risk to the forecast's outer years.

The greatest downside risk for this forecast remains the concern of Nunavummiut failing to improve their participation in the emerging economy. As was discussed, there are major shortcomings in Nunavut's human capital development. If social conditions do not improve and there are no measurable gains in Nunavut's human capital performance, the risk to the forecast goes beyond the loss of income and a temporary drop in overall GDP. Future developments will be less likely to occur if the local population become disillusioned with their level of participation. If Nunavut is to have a growing, modern economy, its population will have to be ready, willing and able to participate in it. This Outlook assumes improvements in Nunavut's social performance over the forecast period will be enough to avert a major economic collapse, but the serious ramifications of a failure in this area makes it the greatest downside risk to the forecast and indeed the Territory.



7 SOME CHALLENGES FOR NUNAVUT'S OUTLOOK

Many things have been learned about Nunavut's socio-economic progress through this investigation. Clearly, the Territory's economy is set to expand. In fact, expansion is going on right now. But as the Outlook has shown, Nunavummiut have not progressed to a point whereby a high and sustainable quality of life is assured alongside this economic success.

It has also been shown that Nunavut continues to struggle with building a foundation for its future. There are many elements here, but community infrastructure is perhaps the most critical. If Nunavummiut are to achieve long-term success in any of their socio-economic pursuits, the Territory will have to overcome some severe infrastructure shortages. It is not clear that Nunavut can manage this unless more funding can be secured.

Lost in the rush of economic opportunities is the role of Inuit culture in Nunavut society. Little mention of it appears in discussions of mining and commercial fishing. At the same time, little money has been spent over the past five years to understand better the arts sector and cultural industries in Nunavut. The Territory was formed under the idea that Inuit culture required a greater presence in the modern economy. Progress in this area is not clear from the perspective of this Outlook.

Finally, it has been shown that climate change is no longer a future concern. It is here now. Over the next twenty to fifty years, the Inuit way of life will change in the most profound ways: socially, culturally and economically. The ability of Nunavummiut to adapt will determine whether a high and sustainable life can be achieved.

7.1 FINDING BALANCE IN NUNAVUT'S CAPITAL INVESTMENT STRATEGY

The 2002 Nunavut Economic Outlook stated that capital investments were not balanced across the four primary wealth-generating areas. It further speculated that economic performance would outstrip that of social performance. This outcome now seems likely given the latest forecast. The next five years will see economic growth far outpace improvements in Nunavut's human capital. The concern here is that any sense of an improved quality of life might be short lived as a result, with Nunavummiut becoming disillusioned with the so-called economic progress of their Territory.

This begs the question: Can economic growth promote improvement in social performance? Or is the opposite true, that human capital development promotes success in economic outcomes?

The Royal Commission on Aboriginal Peoples spent considerable time dealing with this issue. It concluded that

Economic development is the product of the interaction of many factors—health, education, self-worth, functioning communities, stable environments, and so on. Ultimately, measures to support economic development must reach and benefit individuals, but



some of the most important steps that need to be taken involve the collective. In the absence of improvements in these other areas, economic development will be curtailed.⁶⁰

But at the same time, we cannot cast a shadow on the value and necessity of economic growth. Those that argue economic growth should not occur until a population is completely ready, willing and able to participate are in effect trading an improved quality of life today for the chance of something better tomorrow. The problem with this approach is that tomorrow comes with no guarantees. Donald Savioe argued that:

An important lesson learned from forty years of direct economic development efforts is that success breeds success and failure breeds failure. Indeed, nothing breeds unemployment faster than unemployment, and the longer unemployment lasts, the greater the likelihood of future unemployment. Put differently, long-term welfare dependence inhibits a transition to self-reliance and economic self-sufficiency.⁶¹

But perhaps in some ways, the question posed here is academic. Half way through 2005, Nunavut is on a course of economic expansion that cannot be stopped. Therefore, it is up to Nunavut society to do what it can to use the economic growth to its advantage, and invest in capital that will generate wealth for everyone and not just those participating in the new opportunities.

Strong leadership will be essential in ensuring the newly formed wealth is shared amongst all Nunavummiut. How this can be accomplished is not obvious. Recently, the Nunavut government has responded by pouring money into social infrastructure and programming: building new schools and hospitals; hiring more teachers and nurses; and, investing in social housing and community infrastructure. Some might argue that money is not always the solution, and that the government's spending should be more focused and effective, however it would be hard to argue that it has failed to understand where support is most needed.

More discussion is required. The rise in Nunavut's gross domestic product will provide opportunities for employment growth and higher personal income, but can this higher quality of life be *sustained?* How will individual successes trickle down to provide for greater community well-being? Will the current investment strategies broaden the socio-economic impacts of this new wealth?

7.2 REVISITING NUNAVUT'S APPROACH TO CLOSING ITS INFRASTRUCTURE GAP

Nunavummiut understand the dilemma they face in addressing the Territory's infrastructure deficit. They know that while deficiencies are having profound

⁶⁰ Report of the Royal Commission on Aboriginal Peoples, Volume Two, Restructuring the Relationship, Part One, Introduction to Economic Development (1996).

⁶¹ Donald Savoie, *Community Economic Development in Atlantic Canada: False Hope or Panacea.* The Canadian Institute for Research on Regional Development.



impacts on the progress of their society, the Territory does not have the financial capacity to address the challenge on its own. The original Outlook stated that there is a growing concern in Nunavut that the existing state of infrastructure is preventing the Territory from growing to its full socioeconomic potential. Considerable work has been carried out to address this challenge including the *Nunavut Economic Development Strategy* that paid particular attention to several aspects of Nunavut's infrastructure shortfalls. A number of measures have since been adopted:

- the government's capital budget has risen steadily since 1999 and reached a peak of \$169 million in 2004-05 (from \$77 million in fiscal-year 2000-01);⁶³
- external funding sources have been identified in numerous proposals;
- innovative infrastructure designs and approaches are being sought out and adopted; and,
- attempts are underway to integrate capital planning across government departments, and other stakeholders (e.g., municipalities, the federal government).

Other actions have been identified such as conservation policies that would lessen the burden on or need for infrastructure.

With these action items in place and the federal government's *Strategic Investments in Northern Economic Development* program, can we assume that Nunavut is now on track to reduce its infrastructure gap? Will the "supply" of infrastructure grow faster than the "demand"?

Unfortunately, the answer to the last question might be no. Nunavut faces too many obstacles in reducing its infrastructure deficit:

- new national standards that are well beyond its financial capacity;
- a population that has community infrastructure stretched to its limits; and,
- a changing climate that represents an unknown impact on existing infrastructure

represent just some of the seemingly insurmountable obstacles facing Nunavut's capital plan.

Meanwhile the gap in housing stock will not be closed any time soon. The federal government is not likely to deliver on the \$2 billion request for funding the Territory's new housing strategy. So what is Nunavut to do? It can't raise the money itself, nor is it likely the private sector will invest heavily in Nunavut communities.

^{62 2001} Nunavut Economic Outlook.

⁶³ Budgets (2000-01 to 2005-06) Department of Finance, Government of Nunavut.



Such a complex problem will likely require a combination of strategies including smarter building designs that lower construction and operating costs, a change in public expectations, a continuation of lobby efforts directed at the federal government, and more work in raising awareness among Canadians of the Territory's plight. Nunavut requires financial support to build the necessary infrastructure that would provide the Territory with a fair chance at succeeding economically and socially.

7.3 Non-Wage Activities' Place Within an Increasingly Modern Nunavut Society

Nunavut was founded on the Territory's need for its own direction to deal effectively with the unique culture and environment that exists throughout the eastern Arctic. In its founding documents and almost all those that followed including the original *Nunavut Economic Outlook* and the more recent *Nunavut Economic Development Strategy*, these sentiments were echoed. Moreover, many of the elements of Inuit culture, knowledge and beliefs have found their way into government policy and programming.

But as we see the Territory grow in non-traditional sectors such as mining and commercial fishing, we should ask ourselves what place these ideals have in the emerging economy. If they remain critical components of how Nunavummiut view their economy, land and government, how can it remain central to public policy? Is there room for culture-based programming during a time when industrial prospects are expanding and offering rich rewards?

This Update identified the need to consider "Nunavut-relevant" indicators that relate to Inuit culture and traditions given their importance to the health and well-being of Nunavummiut. In addition, past reports spoke of the need to promote the preservation of Inuit culture for legitimate economic reasons. The Territory's tourism industry is highly dependent on Inuit culture and art as a primary export. And while little research has been done to calculate the value of traditional food production, it is recognised that its demise would bring about serious health, social and economic hardships.

In the end, only Inuit can determine a path they are comfortable with. But it will be the responsibility of Nunavut's leadership to identify what is a high and sustainable quality of life and translate the wishes of Inuit into realistic government policy. This will involve leadership making tough choices on behalf of the Territory in balancing economic, social and cultural objectives. These decisions are critical to the long-term prosperity of all Nunavummiut.

7.4 SOCIO-ECONOMIC IMPACTS OF CHANGES IN THE ENVIRONMENT

Past reports have discussed the important role the environment and its natural capital play in Inuit culture and way of life. Nunavummiut are becoming increasingly concerned with the changes they are seeing on the land in regards to climate that threaten aspects of their livelihoods such as food security and local transportation.

Already discussions are underway regarding how the local population will need to adapt socially and economically to climate change. Communicating the



adaptation strategies between communities will be important, as will sharing observations on the changing climate with the rest of Canada and the world.

Impacts of climate change will not be restricted to social and environmental arenas. In this century, it is likely that the Northwest Passage will open for shipping. A reduction in sea ice will allow for more extensive exploration for minerals and fossil fuel—no doubt revealing vast expanses of wealth buried above the Arctic Circle—but also raising the possibility of environmental contamination of a region particularly sensitive to such things. There are also suggestions that Canadian sovereignty over regions of Nunavut will become a concern. Managing all of this will require considerable organisation and communication skills, as well as time and resources. And while we make no attempt to predict the timing of these events, they will impact Nunavut's socio-economic outlook over time. The question is "Will Nunavut be prepared?"



8 CONCLUDING REMARKS

This 2005 Update of the *Nunavut Economic Outlook* was commissioned by the Nunavut Economic Forum. It builds on previous reports and is the first comprehensive study of Nunavut's socio-economic performance since the unveiling of the Territory's *Economic Development Strategy*. While this document was not developed to measure the level of success achieved through the strategy's implementation, it could be used as such in the future.

Before proceeding further, it is necessary to comment on the lack of improvements in data quality and quantity on many fronts. With the exception of data produced by national institutions, little or no new evidence of Nunavut's socio-economic progress has been produced since the original Outlook was published in 2001. We are concerned that a lack of data will impact on the ability of Nunavummiut to make informed decisions.

The Outlook provides insight into Nunavut's socio-economic progress over its brief history as a Territory in Canada. However, Nunavut's unique geographic, economic, social and demographic makeup warrants an approach unlike what is common for economic reports in other jurisdictions throughout Canada. The original Nunavut Economic Outlook adopted a Framework for Understanding Economic Development that was unique at the time, emphasising a holistic approach to analysing the growth of an economy, and investigating a broad array of socio-economic variables that contribute to a society's well-being. The Report for the Royal Commission on Aboriginal Peoples described the necessity for a unique approach when it said:

Inhabitants of smaller communities often prefer the quality of life there—with its unique dimensions of time, culture and relationships—to the anonymity and pressure of cities. Many would choose a different mix of cash and other types of income if the prospect of healthy and sustainable communities were attainable. Measurements of social and economic well-being would be different for those communities because of the choices people make. While these communities may never be fully self-reliant, they could make far better use of existing public resources if allowed to do so in a way that corresponds to local conditions. 64

Therefore this Update approached the investigation of Nunavut's socioeconomic progress from the perspective of wealth generation, and considered investments and other changes that might alter the overall quality of life. A number of important changes have taken place since the last Update was published in November 2002:

• Government is struggling to maintain a level of public infrastructure to support rising demands. This story does not get the attention it deserves

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⁶⁴ Report for the Royal Commission on Aboriginal Peoples, Volume Two: Restructuring the Relationship, Part Five: Economic Development (1996).



outside Nunavut. Failure to address issues of public works and social housing carries a risk of a major social collapse in Nunavut, negating any gains made in economic growth.

- Nunavut's human capital shows some signs of progress in a few areas but the process has been slow. The pace of these improvements will disappoint Nunavummiut and other observers, but this should not deter anyone's resolve on this front. Serious issues exist with the health status and education of Nunavummiut. The health of women and children seems a particularly serious problem as is the high rates of smoking. Meanwhile, some inroads have been made in raising the number of high school graduates, but significant work remains in raising the quality of education these diplomas represent. Now, with the private sector spurring on industry growth, the development of human capital is more important than ever if Nunavut is to achieve broad success and ensure Nunavummiut are able to participate in the new economic opportunities.
- Pressures on Nunavut's natural capital will intensify via climate change and expansion of economic activity. Over the medium term, Nunavummiut will need to take a more proactive approach to developing adaptation strategies to climate change, and assessing where investments will be needed most in the coming years. These efforts will require strong leadership and an improvement in Nunavut's organisational capital.

The investments in capital and changes in performance will be important for what lies ahead for Nunavut's economy, especially those meant to improve the local population's ability to participate in the wage economy.

A revised forecast of Nunavut's real gross domestic product is provided based on the research and analysis conducted for this Update. The new forecast is dominated by advances in government activity and in mining. Construction, transportation, warehousing, retail trade and finance will all show strong growth as a result of the spending in these two areas.

This is a good story for Nunavut's economy. With growth coming from sectors other than government, the economy will be more diversified, offer labour more choice in employment, and lessen the region's dependence on federal transfers. The current forecast projects real GDP to grow by 5.6 per cent this year and on average 4.7 per cent over the next five years. Most important, Nunavummiut should be more involved in the production of this output and therefore improve their economic well-being.

Participation of Nunavummiut is the key to this forecast. Nunavummiut need to involve themselves in every aspect of the growing economy—whether through employment, ownership, or business opportunities. Every time Nunavummiut fail in this regard, the true impact of this forecast is reduced.

Participation also remains the greatest unknown in the forecast. Will the strong economy translate into broad improvements in well-being throughout Nunavut?

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Or, will a failure to participate leave many Nunavummiut disillusioned with their new economy as they watch the benefits flow south?

The answer lies in how Nunavut chooses to address its challenges. Here we echo the conclusions of past reports; that Nunavut must invest wisely. Understanding where its needs are the greatest and never losing sight of the ultimate goal to reach a high and sustainable quality of life will be important factors in seeing Nunavummiut in charge of, and participating in, their emerging economy.