

# EXECUTIVE SUMMARY

## INTRODUCTION

The Nunavut Planning Commission (NPC), an Institution of Public Government, has been given the responsibility of preparing community-based land use plans to fulfill the objectives established by the Nunavut Land Claims Agreement (NLCA). NPC's mandate arises specifically from Article 11, Section 11.3.1 of the NLCA, which states that a land use plan (LUP) document will be developed that contains text, schedules, figures and maps for the establishment of objectives and guidelines for short-term and long-term development. The LUP must take into consideration:

- Population demographics;
- Natural resource base and existing patterns of natural resource use;
- Economic opportunities and needs;
- Transportation and communication services and corridors;
- Energy requirements, sources and availability;
- Community infrastructure requirements, including health, housing, education and other social services;
- Environmental considerations, including parks and conservation areas, and wildlife habitat;
- Cultural factors and priorities, including the protection and preservation of archaeological sites and outpost camps; and,
- Special local and regional considerations.

In response to requirements of the NLCA, NPC contracted Terriplan Consultants to prepare a Socio-Demographic and Economic Sector Analysis report that will be used to help inform the Nunavut Land Use Plan. The intent of the report is to provide NPC with socio-demographic and economic information at the territorial, regional and community levels that will increase the Commission's understanding and awareness of current and possible future trends in the socio-economic environment of Nunavut.

## METHODOLOGY

This report is based on data and information collected using a variety of methods:

- Literature and Document Review:
  - Background information from secondary sources (research reports, government documents, presentations, market segment reports, websites and media notices) was compiled and reviewed.
- Statistical Data Review:
  - Current and past statistical data obtained from Statistics Canada, the Nunavut Bureau of Statistics and the NWT Bureau of Statistics formed the basis of the socio-demographic information obtained for the report.
- Interviews:
  - Interviews were conducted by telephone or in-person with over 28 representatives of governments, agencies and organizations with knowledge and experience related to the socio-demographic and/or economic environment in Nunavut. The purpose of the interviews was to provide information on the organization's mandate, priorities and initiatives related to enhancing economic development in Nunavut;

the organization's opportunities and challenges in carrying out its mandate; and, additional information sources (documentation or geo-spatial) that might assist in the study.

- Digital Database Mapping:
  - A variety of spatial datasets were compiled to create a series of maps that illustrate the locations and spatial extent of some existing economic development activities.

## **SCOPE OF ANALYSIS**

The socio-demographic analysis spans the timeframe from 1961 to 2006, with the key years of interest being the census years of 1996, 2001 and 2006. The geographic scope of the analysis includes the community/outpost, regional and territorial levels for Nunavut. The demographic characteristics for Nunavut were compared to corresponding conditions in Canada, including Alberta, Saskatchewan, Manitoba, and the Northwest Territories (NWT). Attempts were also made to collect forecast information on Nunavut and community populations to the year 2031.

The economic analysis highlights existing economic conditions in Nunavut and identifies future economic development opportunities. It provides an overview of the key characteristics of the economy, followed by a description of economic conditions and opportunities in each sector.

The information collected for this report was organized and analysed to identify the following:

- A detailed picture of the social and economic conditions currently existing in Nunavut;
- An assessment of social and economic trends leading to present conditions;
- A forecast of future conditions in Nunavut;
- A comparison of conditions with other jurisdictions within Canada and nationally as a whole;
- A review of current economic activities in the territory; and
- An assessment of potential opportunities (and barriers) for future social and economic development in Nunavut.

## **STUDY FINDINGS**

### **POPULATION TRENDS IN NUNAVUT**

#### ***Recent Population Trends 1996-2006***

From 1996 to 2006, information obtained from Statistics Canada, the Nunavut Bureau of Statistics and the NWT Bureau of Statistics on recent population trends in Nunavut and jurisdictional comparisons, revealed the following highlights:

- Based on the 2006 census, Nunavut remains the smallest population of any province or territory in Canada, with a total of 29,474 residents representing 0.09% of the total Canadian population.
- Baffin is the largest region in the territory, accounting for 53.5% of the total census population and 50.6% of the total Aboriginal census population within Nunavut in 2006.
- Iqaluit was the largest community with a total of 6,186 residents, followed by Rankin Inlet (Pop. 2,358) and Arviat (Pop.2060), in 2006.
- Nunavut is composed primarily of Inuit, accounting for approximately 84% of the total census population in the territory in 2006.

- The communities with the greatest Aboriginal composition (approximately 96% in each community) in the 2006 census years included: Coral Harbour, Repulse Bay, Whale Cove, Clyde River, and Hall Beach.
- Compared to Canada as a whole, and within selected territories and provinces, Nunavut has the greatest proportion of Aboriginal people relative to its total territorial population.
- In 2006, Nunavut had a greater proportion of individuals in the 0-14 year age category (33.9%) and a lesser proportion in the 75 years and older grouping (0.8%) than Canada as a whole (17.6% and 6.4%, respectively) and selected provinces. The NWT showed similar demographic trends to those observed in Nunavut.

### ***Historic Population Growth***

Information obtained from Statistics Canada and the NWT Bureau of Statistics from 1961 to 2006 revealed that:

- Nunavut's population has increased from 4,166 residents in 1961 to 29,474 residents in 2006 (an increase of 14.1 %).
- In recent years, the population in Nunavut has grown at a much slower rate than in earlier years. From 1996 to 2001, Nunavut experienced a decrease in its growth rate from 16.4% to 8.1%. In 2006, the growth rate showed a slight increase (10.2%) but was still well below the rates previously experienced.

### ***Population Projections 2006 to 2031***

A population projection was to be developed for each community/outpost, and for Nunavut as a whole, for the years 2006 to 2031. However, given the current status of the data available from the Nunavut Bureau of Statistics and Statistics Canada, developing population projections from 2006 – 2031 with a reasonable degree of confidence, was not possible at this time.

The Nunavut Bureau of Statistics recently began preliminary research to prepare population projections for the territory; however this work is at a preliminary stage and was not able to be used to develop the required projections.

In September 2008, Statistics Canada is expected to release its population projections incorporating 2006 census data. Once this data becomes available, additional research would need to be done with regard to methodology and data inputs to ensure the projections are appropriate to the demographic conditions in Nunavut.

If population projections are to be developed with a sound degree of confidence, it is recommended that the task of developing the population projections to 2031 be postponed until the Nunavut Bureau of Statistics has completed its work on the population projections, and the estimates from Statistics Canada have been published.

### **CURRENT SOCIO-ECONOMIC PROFILE 2006**

Current socio-economic data on Nunavut obtained from the Statistics Canada's 2006 Census highlights the following findings.

### ***Labour Force Participation***

- Based on the total census population for 2006, Nunavut had lower participation and employment rates (65.3% and 55.2%, respectively) and higher unemployment rates (15.6%) than the national average (66.8%, 62.4% and 6.6%, respectively).
- The participation and employment rates (59.1% and 47.2%, respectively) for the Aboriginal 2006 census population in Nunavut were lower and the unemployment rate (20.1%) was even higher than the national Aboriginal averages (63.0%, 53.7%, and 14.8%, respectively).

### ***Educational Levels***

- In 2006, more than half of Nunavut's total census population (57.3%) and more than two-thirds of the Aboriginal census population (68.7%), had no educational certificate, diploma or degree. Within the Canadian population as a whole, 23.8% of the total census population and 43.7% of the Aboriginal population, had no educational certificate, diploma or degree.
- Based on the 2006 census data, 10.9% of the total Nunavut census population had a high school certificate or equivalent, compared to 25.5% of the total national population. With respect to the Aboriginal census population, 9.6% of the population in Nunavut had a high school certificate or equivalent, compared to 21.8% of the total national Aboriginal population.
- Only a very small percentage of the total 2006 census population in Nunavut (9.0%), and an even smaller percentage in the Aboriginal population (2.0%), had attained a university certificate, diploma or degree. This is significantly less than the national average, in which 18.1% of the total 2006 census population and 5.8% in the Aboriginal population had attained a university certificate, diploma or degree.
- In Nunavut, for both the total census population and the Aboriginal population, those individuals who were involved in academic pursuits were primarily engaged in the fields of 'architecture, engineering and related technologies' and 'business management, and public administration'.

### ***Average Income Levels***

- The average median income (money received from all sources) for the total census population, 15 years and older and living in Nunavut was \$20,982, approximately \$5,000 less than the national average. The average median income for the Aboriginal census population, 15 years and older, living in Nunavut (\$16,069) was similar to that for Aboriginal people nationally (\$16,752).
- The median earnings (money received from paid employment), for the total census population 15 years and older, living in Nunavut (\$26,848) were very similar to the national average (\$26,850). For the Aboriginal census population in Nunavut, 15 years and older, the median earnings (\$17,959) were \$1000 less than the national average for Aboriginal people.
- With respect to the composition of total income, the total 2006 census population in Nunavut had a higher percent of income originating from earnings (86.5%) than did the nation (76.2%). In the total Aboriginal population in Nunavut, 80.6% had income originating from earnings compared to 76.9% of Aboriginal peoples in the nation as a whole.

### ***Workforce by Industry Sector and Occupation***

- In Nunavut, for the total 2006 census population, Aboriginal and non-Aboriginal individuals in the workforce participated primarily in industries such as ‘educational services’, business services’, ‘retail services’ and ‘other services’
- In Nunavut, for the total 2006 census population, Aboriginal and non-Aboriginal individuals in the workforce were typically engaged in occupations such as ‘sales and service occupations’, ‘trades; transport and equipment operators and related occupations’, ‘occupations in social science; education; government service and religion’, and ‘business; finance and administration occupations’.

### ***Income Level by Education Levels***

- Generally speaking, there is a direct relationship between an individual’s education level and his or her average employment income.

## **EXISTING ECONOMIC CONDITIONS**

### ***Overview of Existing Economic Conditions***

Nunavut has a mixed economy that depends on both the wage-based economy and the much smaller land-based activities such as hunting, crafts and fishing.

The government in Nunavut dominates the territorial economy and the service sector. The private sector in Nunavut is comparatively less developed than in the southern parts of Canada. The public sector in Nunavut accounts for a significant portion of Gross Domestic Product (GDP), making up about 26% of its value in 2006. By contrast, the public sector accounted for less than 6 percent of the GDP for Canada as a whole in 2006.

The Government of Nunavut (GN) projects expenditures of \$1.1 billion for 2008-09. The federal government will contribute about 81% of GN expenditures. Since the creation of Nunavut, the public sector has been the principal engine of the economy. It accounts for approximately 30 percent of territorial wage earners, significantly higher than the Canadian average, which is less than 6 percent.

In the goods-producing sector in 2004, the most important sectors were construction, followed far behind by utilities, manufacturing, mining and commercial fisheries.

The domestic 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. Nunavut benefited especially from mining industry activity, after several years of decline resulting from the closures of several major mines such as the Jericho and Nanisivik Mines.

### ***Current Economic Activity***

The following economic activities currently exist in Nunavut:

**Transportation:** Transportation infrastructure in Nunavut is in need of updating and expansion. There are no roads or rail lines connecting communities with each other or the rest of the country and, although all the communities can be accessed by air year-round and all but one by sea during

the summer months, the marine and air infrastructure is inadequate. These transportation issues need to be addressed to facilitate economic development.

**Commercial Fisheries:** Commercial fisheries are an emerging sector in Nunavut's economy. In 2005 it was estimated that the industry added between \$12 and \$14 million annually to the territory's economy and creates 300 seasonal jobs. Value-added processing plants in Nunavut are responsible for the greatest contribution. Currently, there are three main species being fished for commercial purposes in the territory – turbot, shrimp and Arctic char.

**Government:** Government is the largest employer in Nunavut. The public sector has remained Nunavut's prime economic driver and it is expected to remain so for the foreseeable future. This heavy dependence on the public sector is the result of circumstances such as a harsh climate, geographic remoteness, small population, and underdeveloped infrastructure systems which have led to serious constraints for private sector economic development in the territory.

**Tourism:** The tourism industry in Nunavut has an opportunity to capitalize on its unique natural and cultural features. The Government of Nunavut has identified the sector as one of the three pillars of economic growth within the territory. Currently, the sector employs 500 hospitality workers, attracts approximately 13,000 people each year, primarily from Canada, American and Europe and contributes \$26 million to the economy.

**Communications:** Having adequate communications infrastructure is an essential part of facilitating economic development and improving quality of life in Nunavut. Working towards this goal, in 2005 the federal government provided financial assistance to enable the territory to provide broadband internet service to 25 communities at a cost of \$18 million.

**Oil and Gas:** Nunavut's oil and gas sector has not seen much activity to this point, yet it holds significant potential for the future of the territory's economy. There are proven oil and gas resources contained within fourteen sedimentary basins. It is estimated that the resources hold 530 million barrels of oil and 12 trillion cubic feet of natural gas.

**Energy:** In Nunavut, electricity is provided through diesel generation. Diesel is shipped to each community annually by sea and stored in large fuel tanks. A primary focus for the Quilliq Energy Corporation is conserving and reducing energy use and finding an alternative to diesel, particularly as issues arise regarding increasing fuel costs, growing demand and environmental concerns.

**Arts & Crafts:** Nunavut's arts and crafts sector is emerging as a successful, internationally-recognized part of the territory's economy. It currently provides income to more than 27% of the Inuit population and contributes \$30 million annually to the economy. Inuit art not only makes up more than 10% of Canadian art sold globally, it is a major draw for visitors coming into the territory.

**Wildlife:** Wildlife harvesting is an important part of meeting subsistence needs for Inuit, 70% of whom participate in these activities. It provides a fresh alternative to expensive imported food. Wildlife is also harvested for commercial purposes in Nunavut. Species such as polar bears, muskox, caribou and seals can be harvested and sold in a variety of forms locally and to markets throughout Canada and internationally.

**Mining:** Mining has great potential as a contributor to Nunavut's GDP. While there are currently no active mines, there are several projects at various stages in the environmental assessment process and many sites undergoing exploration. In 2007, a number of properties in the territory were being explored for uranium (49), diamonds (41), gold and precious metals (26), base metals (9), iron (2), coal (2), and gemstones (sapphires) (1). For the mining sector to fully realize its potential, issues such as transportation infrastructure and regulatory process efficiency must be adequately addressed.

### ***Key Challenges for the Economy***

There are a number of important challenges/barriers that impede Nunavut's ability to participate successfully in economic endeavours:

- The primary challenge is the capacity of Inuit living in Nunavut, and in particular the labour force, business and public institutions, to take full advantage of economic opportunities in Nunavut.
- A second challenge is that economic expansion is expected to easily outpace advances in Nunavut's social performance, which has been slow to improve.
- A third challenge is that Inuit still suffer from high unemployment and low levels of skills and education that the territory needs to address.
- A fourth challenge relates to aging and inadequate infrastructure which is limiting human development and economic success.

Other barriers faced by Nunavut that limit economic development include:

- The limited size of communities and their remoteness from the major metropolitan centres of Canada and other northern communities;
- The harsh climate and the impact it has on facilities' costs;
- The high cost of living;
- The high cost of transportation of people and goods to the north and among northern communities, along with the need to import most goods from the south, including the higher cost of fossil fuel, which is heavily subsidized by the government of Nunavut
- The high burden of taxation faced by residents of the north;
- The almost complete absence of banks and other mainstream financial institutions in many communities;
- The lack of access to investment capital for businesses and infrastructure;
- The lack of mechanisms to support trade of locally produced products -- small local markets limit business growth;
- The difficulties of recruiting specialized skills locally, and for Inuit small businesses to compete with high wages offered by government and major mining companies;
- The international trade laws that act as barriers to marketing Inuit / Nunavut products (e.g. marine mammal products, caribou meat, products from musk oxen, bear hunting, etc.);
- The necessity of providing services to customers and/or in dealing with government in two or three different languages;
- The need to greatly improve the availability and quality of socio-economic baseline data relevant to economic development and to make it more comprehensive, integrated and publicly available in order to better inform economic, regional and community planning; and,
- The regulatory system.

## **FUTURE ECONOMIC DEVELOPMENT OPPORTUNITIES**

### **OVERVIEW OF FUTURE ECONOMIC DEVELOPMENT OPPORTUNITIES**

#### *Economic Outlook and Forecasts for Nunavut*

The 2005 Nunavut Economic Outlook for 2005-2020 forecasts the following economic activity and GDP growth:

- Although the public sector remains the major player in Nunavut's domestic economy and will remain so over the forecast period, recent advances in the private sector will diminish this dominance. Led by mining and construction industries, growth in business investments will result in more private-sector jobs.
- Real Gross domestic Product (GDP) is expected to grow 4.7% over the period from 2006-2010. Then growth is expected to decline markedly to 2.4% from 2011 to 2015 and to 1.6% from 2016-2020.
- In the early years of the forecast period, the public sector will provide new opportunities for employment and stimulate much of the territory's growth. In the later years, growth will shift towards three areas in the private sector: mining, fishing and construction.
- With growth in the Nunavut economy coming from sectors other than government, the economy will be more diversified and will lessen the territory's dependence on federal transfers.

#### *Opportunities for Future Economic Development*

There is very strong potential in mining development including gold, metals and uranium. Mining provides the greatest long-term opportunities in monetary terms. According to a 2007 GN report, "optimistically, 1500 new mine-related jobs could be created in Nunavut over the next 10 years". Mines with known deposits possibly going forward for approval include:

- Agnico-Eagle Mines Ltd. – Meadowbank Project (gold), Kivalliq;
- Areva Resources Inc. – Kiggavik Project (uranium), Kivalliq;
- Newmont Mining Corp. – Hope Bay Project (gold), Kitikmeot;
- Zinifex Canada - Izok Lake Project (lead, zinc), Kitikmeot;
- Zinifex Canada - High Lake Project (gold/copper), Kitikmeot; and,
- Baffinland Iron Mines Corporation – Mary River Project (iron ore), Qikiqtani.

Nunavut has proven oil and gas potential, accounting for 5% of known oil reserves and 15% of known gas reserves in Canada. Gas production is expected to reach 345 billion cubic feet or 6% of total projected Canadian production.

In the longer term, higher fuel prices will make diverse alternatives to diesel generation such as hydro electricity, residual heat and energy conservation, more viable across Nunavut, and it is hoped that research into 'green' energy alternatives will continue to develop.

After mining, the fishing industry has the potential to become a major driver of Nunavut's future economy. Fisheries are expected to expand to include new species such as flounder, clams, crab and scallops. Those opportunities can be augmented if Nunavut can access new fishing quotas and develop its offshore and in-shore fisheries through future developments in fish science.



Potential public infrastructure projects include:

- Construction of a deep-sea port in Iqaluit, currently under study. It is expected to bring benefits to the fishing, tourism and transportation industries as well as reducing shipping costs;
- Manitoba – Kivalliq Road;
- Northwest Passage as a potential gateway;
- Bathurst Inlet Port and Road Project; and
- Hydroelectric development in the vicinity of Iqaluit

### ***Economic Priorities***

In 2008, the Nunavut Economic Forum (NEF) identified three top priorities for the medium term: education, community and organizational capacity and local business development. For the NEF, it is crucial that Nunavut makes a concerted effort to ensure that its economy diversifies and attracts private investments, which are expected to expand as the land claims settlement creates a positive investment climate and is more predictable. Nunavut's key challenge will be to ensure that more of the wealth produced in Nunavut stays in Nunavut -- not an easy task. According to the NEF, as of 2008, sector strategies have been completed in the following areas: mining, fishing, sealing, arts and crafts, housing, adult learning and climate change. In early 2009, the NEF is expected to convene the Sivummut III Economic Development Conference which will provide the opportunity to assess progress in implementing the 2003 NEF Economic Strategy and identify new priorities for the coming years. This will help all levels of government establish their direction for investing in economic development in Nunavut.

The GN Targeted Investment Program (TIP) has identified four thematic areas for investment:

- Building the knowledge base in key economic sectors;
- Enhancing the economic infrastructure base;
- Promoting capacity development of organizations, associations, small and medium sized enterprises (including social enterprises), and individuals; and
- Enhancing economic diversification within regions and sectors with a focus on the development of new sectors, products and markets.

The GN will receive \$182.7 million from the federal government over the next seven years for capital infrastructure. This funding will be allocated to the following sectors: transportation infrastructure; wastewater treatment and solid waste management; clean drinking water; disaster mitigation; cultural relevance; and sport and tourism.

The federal government's Strategic Investments in Northern Economic Development (SINED) program earmarked investments in seven areas of the TIP program between 2005 and 2009, including four sectors with the greatest potential for growth: mining and exploration (32%), fishing (8%), tourism/parks (18%), and arts and cultural industries (5%); and in three areas where progress will greatly enhance Nunavummiut participation in the economy: community organizational capacity (22%), trade (10%), and broadband/connectivity (5%).

### *Future Opportunities in Economic Sectors*

Future economic activity in Nunavut includes the following:

**Transportation:** There are currently several projects in the planning and review stages aimed at addressing the challenges with Nunavut's transportation infrastructure. This includes the construction of ports, roads, harbour facilities and a railway line. These investments, made by both government and private companies not only facilitate economic development, but will also improve access and opportunities for the residents of Nunavut.

**Commercial Fisheries:** Activity in Nunavut's commercial fishing industry is predicted to grow. By the year 2013 it is expected to bring in \$85 million to the economy. Efforts to achieve this growth include investments in marine infrastructure, such as ports, docks and harbour facilities, as well as training programs that address the need for a skilled fishing workforce. In addition to expanding the current fisheries, exploration into new fish species will occur.

**Government:** In order for the government to move closer to the NLCA targets for Inuit employment, they must continue their efforts to increase training and education opportunities so as to improve Inuit capacity and thereby increase Inuit employment numbers. The proposed transfer of administration and control of public lands and resources and rights with respect to waters, from INAC to the GN will result in an increased need for a trained, representative workforce.

**Tourism:** Tourism is a sector that is highly desirable in Nunavut as it offers the opportunity for job creation at the community level, promotion of Inuit culture and protection of natural resources. Its successful development requires appropriate marketing, infrastructure development and standards and regulations. Opportunities for expansion are arising in capitalizing on the European market, taking advantage of the infrastructure created by mining activities, and promoting the unique remoteness of the area.

**Communications:** The current goal in the communications sector is to increase broadband capacity. Doing so would create multiple benefits including promotion of arts and crafts and tourism, generation of jobs in the IT sector, and improved access to public services.

**Oil and Gas:** It is expected that the oil and gas sector in Nunavut will grow significantly if there are sustained high oil and gas prices or supply shortages. These factors will lead to further exploration of the territory's resources. It is predicted that the rate of gas production will reach 345 cubic feet per year by 2020. To realize these predictions the territory must first overcome the obstacles presented by its extreme climate and inadequate transportation infrastructure.

**Energy:** As in the oil and gas sector, the increasing price of fuel and increasing demands will trigger the examination of opportunities for alternative methods of generating and conserving energy. Current efforts are focused on exploring residual heat programs, conservation initiatives, nuclear power, hydro-electric generation and other alternatives such as, solar and wind power.

**Arts and Crafts:** The development of a successful arts and crafts sector is being pursued through a variety of strategic investments such as initiatives that help create international recognition, expand the international market share and increase the quality of Nunavut art.

**Wildlife:** There is potential in this sector for growth and development. This is dependent, however, on a number of variables including the international policy on seal and polar bear

hunting, changing climate conditions and the effects of development in other sectors on the environment. Careful monitoring and research of wildlife is needed as the economy and population of Nunavut expands.

**Mining:** Mining could potentially be one of the most lucrative industries for Nunavut. There are three significant projects anticipated to begin operations in the near future and it is projected that there will be 8 open mines by 2016. Each mine brings both revenue and employment to the territory. Two trends of particular interest in this sector are research into environmentally friendly operations and the push to invest in commodities given current global political uncertainty.

## **CONCLUSION**

This report has provided a detailed picture of the socio-demographic and economic conditions and trends in Nunavut, compared to that in other jurisdictions. A review and analysis was conducted of current drivers and trends, and future economic development opportunities for the Nunavut economy. The analysis of demographic trends, economic issues and opportunities provides a comprehensive overview of information to support the Nunavut Planning Commission's work as it proceeds to develop a land use plan for Nunavut.