

Challenges to Sustainability in Northern Ontario

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**For the
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1.0 INTRODUCTION

Northern Ontario, the immense landmass occupying over 80 per cent of the total area of Ontario, has approximately 8 per cent of its population. Its size and geography have been major factors conditioning much of its history and development. Traditionally defined by a line drawn from the Mattawa River across Lake Nipissing to the French River, the southern boundary of Northern Ontario now includes the Muskoka Lakes area. The majority of its population lives along the southern borders and is concentrated in five major centres – Sudbury, Thunder Bay, Sault Ste Marie, North Bay and Timmins. The development of the area, initially known for its fur and trade routes, came about because of its rich resources. Today the resource base remains the economic engine of these communities and the entire area. But as the population decreases and the resource base depletes, the question of the sustainability of the area poses a challenge to the future of the region.

Northern Ontario does not fit easily into the image most Canadians have of Ontario. Disparity between the north and south within Ontario is as great as the disparity between Ontario and the Atlantic provinces. However, to put things in perspective nationally, the population of Northern Ontario is greater than three of the Canadian provinces and of each of its territories. The problems faced by Northern Ontario include small local markets at a distance from larger markets, lack of economic diversification, an aging population and youth migration, government dependency and lack of investment potential. Its history has in many ways conditioned its development. The cycles of expansion and contraction of the resource-based communities to accommodate provincial, national or global markets did not lead to development independent of external sources. Most of the major communities in the north are now over 100 years old. Survival of these communities and the way of life of northern residents is critical to the issue of a sustainable future. What the region can do to maintain a viable sustainable future is the subject of this paper.

The World Commission on Environment and Development (Brundtland Commission) first defined the term “sustainability,” or sustainable development, in 1987 as meeting “the needs of the present without compromising the ability of future generations to meet their own needs.” If the earth’s biosphere is to continue to support life while the human population grows and the earth’s capacity and its resources do not, humans must develop strategies and methods for living off the “interest” from the environment and not the “capital.” Moreover, stakeholders with interests in ecological, economic and social reform must work together to create a future where prosperity and opportunity increase for all Canadians.

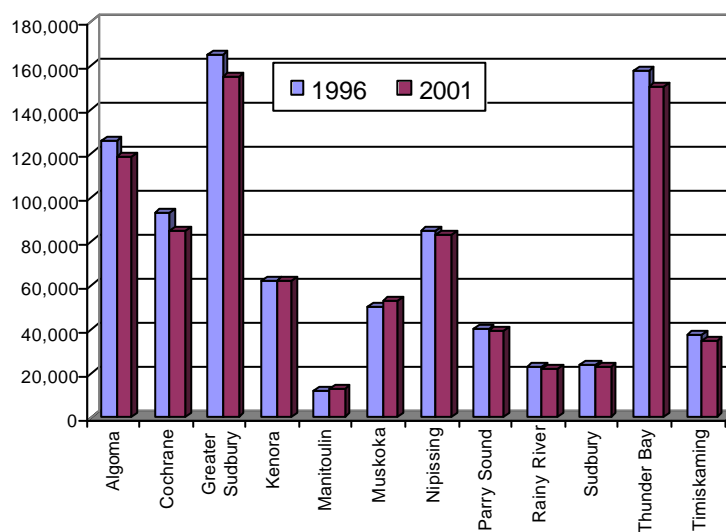
Most experts argue that moving toward sustainability requires that we manage our economic activities in ways that ensure that our economy and society can continue to exist without destroying the natural environment on which all Ontarians depend. Sustainable communities acknowledge that there are limits to the natural, social and built systems upon which we depend. Key questions that advocate of sustainable northern communities must address include: “Are we using northern resources faster than they can be renewed,” and “Are we enhancing the social and human capital upon which our northern communities depend?”

Historically, development in Northern Ontario has depended on resource extraction, which in turn has led to environmental devastation and to the growth of sporadic and unplanned communities, controlled, for the most part, from outside the community and region. The focus on southern Ontario markets did not lend itself to interaction between communities in the north. A northern identity is elusive, since the region is divided administratively between the northeast and northwest, and the mayors and municipalities meet in two different northern municipal organizations – the Northern Ontario Municipal Organization or NOMA in the northwest, and the Federation of Northern Ontario Municipalities or FONOM in the northeast. This continues to foster a divided north. Since most communities in the north share the same history of the boom and bust economy, dependency on global markets, and population loss to the south, the question of the sustainability of the communities and region should be a shared focus. To achieve more self-supporting communities, capable of regenerating from within through economic self-reliance, community control and environmentally sound development, the region must work together to preserve the natural history, culture and the life experiences of its people. The capacity of a region to achieve sustainability is both internal and external. In this paper, we look at the region, its population, and the resource base of its economy and pathways to sustainability.

2.0 POPULATION

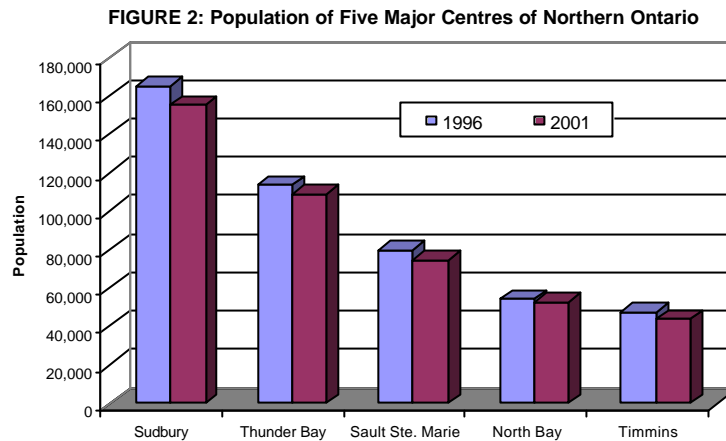
The population of Northern Ontario according to the 1996 census was 875,365 or 8.2 per cent of the Ontario population. The recently released figures for the 2001 census show a decline of 4.1 per cent for the entire region. Northwestern Ontario includes the three districts of Thunder Bay, Rainy River and Kenora; all the other districts are in the northeastern region. The two districts registering a population increase over the period are the southern most districts of Manitoulin and Muskoka, which traditionally are not a part of the North. Figure 1 below displays the population of the region by district for both census years.

FIGURE 1: Northern Ontario - Population by District



Source: Statistics Canada Population Statistics 2001

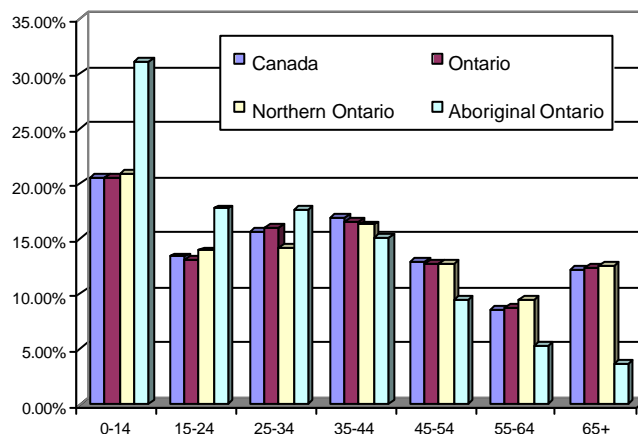
Almost 60 per cent of the population of Northern Ontario live in its five major centers – Sudbury, Thunder Bay, Sault Ste. Marie, North Bay and Timmins. The remainder lives in more than 400 municipalities, incorporated communities and First Nations reserve communities. Figure 2 shows the population decline of the five major urban centres between the 1996 and 2001 census.



Source: Statistics Canada 1996 and 2001 Census

The age structure of the population of Northern Ontario is similar to that of Canada as a whole. However, if we compare the population of Canada, Ontario, and Northern Ontario by age cohorts, there is a significant difference: in the 1996 census by age cohort, Northern Ontario's population between 25-34 years of age is 2 per cent less than in the rest of the province, which indicates an out-migration in this age group. On the other hand, 46 per cent of Ontario's aboriginals live in the north, representing 7.5 per cent of the population of Northern Ontario. Comparing the aboriginal population of Ontario by age cohort to the Canadian, Ontario and Northern Ontario populations, there are dramatic differences. In 1996, 53 per cent of the population of aboriginals in Ontario were under 25 years of age, compared to 34.8 per cent under 25 for the non-aboriginal Northern Ontario population. Figure 3 below compares the Canadian, Ontario, Northern Ontario and Ontario Aboriginal population by age cohort using 1996 census data.

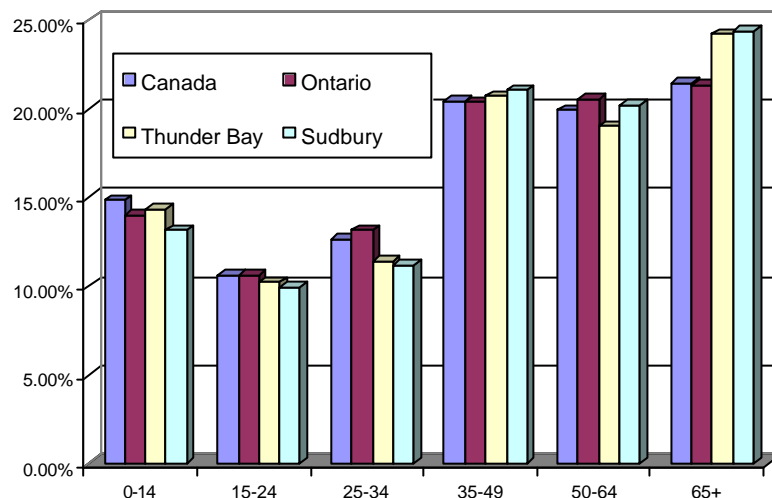
FIGURE 3: Percentage Population in 1996 by Age Cohorts



Source: Statistics Canada, 1996 Census

If we consider the population projections for the end of the first quarter of the 21st Century, the proportion of the population over 65 in Canada and Ontario will be 21 per cent. Although in Northern Ontario's largest centres the percentage of people over 65 is currently 12.6 per cent in Sudbury and 13 per cent in Thunder Bay, that population is expected to almost double to 25 per cent by 2028. Figure 4 illustrates the population estimates for these cities and compares them to the Canadian and Ontario population, showing that the proportion of the population over 65 years in Sudbury and Thunder Bay will be 3 per cent greater than in Ontario and Canada.

FIGURE 4: Age Projections - 1st Quarter 21st Century



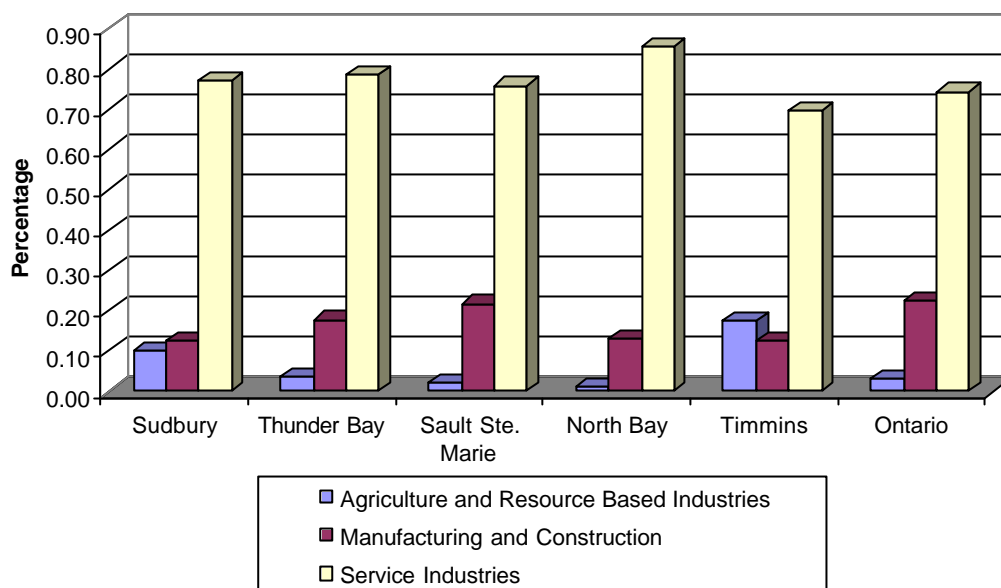
Source: Ontario Population Projections, 1999-2028 Ontario Ministry of Finance

3.0 ECONOMY

3.1 Structure of the Economy

Comprehensive information on the economy of Northern Ontario is not easy to locate. Until the beginning of the 1980s, the traditional sectors of mining and forestry fueled the economy of the north. Since that time, the situation has changed. In Sudbury for example, total employment at the Sudbury operations of INCO and Falconbridge decreased 63 per cent between 1981 and 2000. This pattern is true for all Northern Ontario. During the '80s and into the '90s, the structure of the economy of Northern Ontario changed from primary sector-based employment to the services and government sectors. Examining the industry characteristics of the labour force population of the five major Northern Ontario centres in the 1996 census, we note that Timmins and Sudbury had the highest percentages of people employed in resource-based industries – 18 per cent and 10 per cent respectively. North Bay and Sault Ste. Marie had a lower percentage than Ontario as a whole. On the other hand, all cities except Timmins had a higher percentage of people in the service sector than in Ontario as a whole. Figure 5 portrays employment by industry sector for the five major centres of Northern Ontario in comparison to Ontario as a whole.

FIGURE 5: Employment in Ontario and Northern Ontario Major Cities by Sector



Source: Statistics Canada - 1996 census

3.2 Labour Force Characteristics

An analysis of the labour market characteristics of northeastern and northwestern Ontario by Human Resources Development Canada (HRDC) highlighted the decrease in the labour market in both areas between the 1991 and 1996 census. Although the working-age population increased, the labour force declined by almost 3 per cent in the northeast and 1 per cent in the northwest. Total employment in both regions dropped between the census years by 5 per cent in the northeast and 3 per cent in the northwest, indicating a poorer labour market in the region. Tables 1 and 2 display the labour market characteristics of the region, including each of the districts in the north.

Unemployment also increased significantly in the area, making unemployment in the two economic regions the highest in Ontario, even though the Annual 2000 Northern Ontario Labour Market Review by HRDC indicated that job opportunities outpaced labour force expansion. The growth in jobs, however, was in the service sectors of health and social services, while the resource-based sectors continued to lose jobs. Jobs that become available now require a more highly skilled labour force, and filling them requires the retention of trained graduates from the region – or a concerted effort to attract migrants to the north.

In the long run, the declining population of the north, and the aging of that population between 1996 and 2001, are likely to lead to a further decrease in the labour force and in job opportunities for northern residents who were formerly employed in primary resource-based industries. It is unclear what happens to those who lose jobs in the resource sector. Because of the size of Ontario and the small samples from Northern Ontario in the labour force survey, the labour market picture is likely to be distorted.

	Labour Force	Employment	Unemployment	Participation Rate (%)	Unemployment Rate (%)	Employment Rate (%)
Economic Region 590	277,800	243,075	34,720	60.6	12.5	53
Nipissing District	40,160	35,340	4,825	60.6	12	53.3
Parry Sound District	18,545	16,155	2,390	57.8	12.9	50.3
Manitoulin District	5,280	4,585	690	60.4	13.1	52.5
Sudbury District	11,690	9,960	1,725	58	14.8	49.4
Sudbury Regional	81,310	71,470	9,845	62.3	12.1	54.8
Timiskaming District	17,525	15,265	2,255	59.1	12.9	51.5
Cochrane District	44,850	39,655	5,195	62.5	11.6	55.3
Algoma District	58,440	50,645	7,795	58.9	13.3	51
Economic Region 595	122,930	109,075	13,855	65.4	11.3	58
Thunder Bay District	81,125	72,145	8,980	65.4	11.1	58.1
Kenora District	30,345	26,720	3,625	65.6	11.9	57.7
Rainy River District	11,460	10,210	1,245	64.7	10.9	57.6

Note: Totals may not add up due to rounding.

Source: Statistics Canada, 1996 Census. Special Tabulations.

	Labour Force		Employment		Unemployment		Participation Rate	Unemployment Rate	Employment Rate
	Actual	%	Actual	%	Actual	%			
Economic Region 590	-7,230	-2.5	-12,800	-5	5,565	19.1	-2.7	2.3	-3.8
Nipissing District	-1,055	-2.6	-1,840	-4.9	795	19.7	-2.5	2.2	-3.6
Parry Sound District	600	3.3	-145	-0.9	745	45.3	-1	3.7	-3.1
Manitoulin District	330	6.7	90	2	235	51.6	2.3	3.9	-0.3
Sudbury District	-1,040	-8.2	-1,375	-12.1	330	23.7	-4.5	3.8	-6.3
Sudbury Regional Municipality	-1,500	-1.8	-4,225	-5.6	2,730	38.4	-3	3.5	-4.9
Timiskaming District	-790	-4.3	-1,085	-6.6	290	14.8	-2.1	2.2	-3.1
Cochrane District	-660	-1.5	-350	-0.9	-305	-5.5	-1.9	-0.5	-1.3
Algoma District	-3,115	-5.1	-3,860	-7.1	750	10.6	-3.7	1.9	-4.4
Economic Region 595	-1,060	-0.9	-3,460	-3.1	2,395	20.9	-1.9	2.1	-3.1
Thunder Bay District	-2,790	-3.3	-3,835	-5	1,045	13.2	-2.5	1.6	-3.4
Kenora District	1,550	5.4	340	1.3	1,215	50.4	-1.2	3.5	-3.5
Rainy River District	175	1.6	35	0.3	135	12.2	0	1.1	-0.7

Note: Totals may not add up due to rounding.

Source: Statistics Canada, 1996 Census. Special Tabulations.

3.3 Traditional Sectors Still Driving the Economy

Economic development continues to be linked to the growth of the primary resource sectors of forestry and mining, and the associated industries of manufacturing wood, paper, and allied and primary metal products. About 40 Ontario communities depend on the forests, and for the most part, these communities are in Northern Ontario. (A forest-dependent community is defined as one in which the direct and induced jobs represent at least 40 per cent of total jobs.) Technological advancement in the mining and forest industry led to reduced numbers employed directly in these primary sectors. David McRobert, in a study of *Labour Relations, Technological Change and Sustainability* (1994), argues that technological change in the forest industry has both positive and negative aspects. The benefits include a significant reduction in worker injuries and deaths: in addition, mechanization of many operations improved opportunities for women to work as machine operators. Wood from the forests is also used more efficiently. On the negative side, most of the changes were implemented by industry without meaningful worker input. Moreover, he argues that the industry has failed to undertake changes such as investment in value-added production that

would have provided greater long-term security for single-industry communities in the 1990s and into the next century.

A report on *The Economic Impact of the Forest* by Suthey, Holler and Associates for the Blue Sky Economic Partnership, which includes North Bay and the districts of Nipissing East-Parry Sound, discusses the importance of the industry in the region. The authors state that direct employment in the 2,500 enterprises of the Ontario forest sector is around 80,000, and indirect and induced employment represents up to additional 160,000 jobs. In 1995, total forest industry sales were \$13 billion, with government revenues estimated to be close to \$2 billion annually. When all forest employment factors are combined in the Blue Sky Region, the forestry sector is the most important local industry; the Suthey, Holler study estimated that the employment multiplier for forestry in the region is higher than any other sector. In the northwest, the Thunder Bay Development Corporation estimates that more than two-thirds of northwestern Ontario communities are primarily dependent on the forest and forest industry, providing 40 per cent of direct, indirect and induced employment in the regions.

In 1997 the total value of Canadian mining production was \$17 billion. Ontario is the most significant player in non-fuel minerals, employing about 14,000 persons. Northern Ontario accounts for almost all of the metal production and approximately 20 per cent of the production of non-metals such as talc. The primary mining centres are Sudbury, Timmins, Kirkland Lake, Red Lake and Hemlo/Marathon. Christopher Rees of Suthey, Holler and Associates completed a study of mining similar to that for forestry in the same region. Because all of the major local mining supply companies in the Nipissing East-Parry Sound Region are manufacturers, Rees used an employment multiplier of 1.6, and estimated that the mining sector contributed a total of 2,099 jobs to the region, including direct, indirect and induced, and contributed from \$20 million to \$30 million annually to local spending. This is second only to the estimated \$50 million spent annually because of the forest industry in the Blue Sky Region. Using figures from 1996 census, the Sudbury Fact Book shows that 7,280 persons, or almost 10 per cent of its labour force, are directly employed in mining, milling and quarrying. The Thunder Bay Fact Book, dated May 2001, indicates that 2,877 people in the northwest region were directly involved in mining. Even if we use a lower multiplier of 1.3, the numbers of people employed in the sector are significant – 9,464 for Sudbury and 3,740 in the northwest region.

3.4 Clustering for Economic Development

Because of the impact and the importance of resource-based industries in Northern Ontario, economists at the region's leading universities – Laurentian and Lakehead – have suggested that economic growth will occur only if the region finds ways to diversify by adding value and creating new opportunities within the traditional sectors. The two most comprehensive studies of the Northern Ontario economy are by Professors Jankowski and Moazzami of Lakehead University – *Northern Ontario at the Crossroads: New Challenges and Realities* (1996) and *Northern Ontario's Economy in Transition: National and International Perspectives* (1993). They believe that diversification represents a long-term growth strategy only if it is developed around the already existing resource base and aims at strengthening the current industrial clusters.

Diversification of the forest product industries through value-added wood products was the subject of a recent report written by Jaakko Pöyry Consulting in 2001, commissioned by Ontario's Living Legacy Trust. The consultants assessed the status and future opportunities of Ontario's solid wood value-added sector and concluded:

For Ontario to exploit the leveraging potential of clustering...important lessons can be learned by first concentrating on extending the clustering success already evident in the furniture industries and then extending this learning to millwork and remanufacturing. It is important to note that success with clustering elsewhere points to more industry initiating and driving the cluster, rather than to a government initiative.... The Government role is however, critical to providing a positive business climate in which clusters can flourish. Keys to success in such efforts can be expected to include –

Vertical clustering through the value chain with

- *Raw material suppliers (panels, lumber) to promote specialization, flexibility and product development capabilities*
- *The Supply Chain (raw material to end users) to share and promote efficiency improvements, competitiveness and innovation*
- *Stakeholders (see also horizontal clustering) in supporting raw materials systems such as recycling - in terms of local government, consumers, industry (panels) and NGOs.*

Horizontal clustering through associated industries and institutions:

- *Machinery and equipment producers, supporting suppliers and industries (chemical, energy), supporting institutions (design, standards, management skills, know-how, marketing, technology adoption), interlinked industries (textiles, metals, plastics) and stakeholders (Government agencies, unions, NGO's).*

In successful clusters, innovation and education are particular focal points for NGOs and government agencies. In this role, the impact is one of risk sharing and extending the horizon of the cluster. The second key role is the networking (horizontal and vertical) of information, internal and external to the cluster - to promote the cluster and generate momentum plus critical mass. (P. 38, Jaakko Pöyry Consulting)

Professors David Robinson and Claude Vincent of Laurentian University, in an article posted on the Institute for Northern Ontario Research and Development (INORD) web site, suggest a similar strategy for the mining sector. They note that although total employment in mining has continued to fall in Sudbury, there has been a huge increase in the number of professional occupations, especially in the management and professional-technical occupations. Accompanying this growth is a proliferation of companies supplying the mining industry. Professors Robinson and Vincent suggest that by building on the demand from major mining companies in the northern region, many of these same companies have expanded to supplying national and international markets. Sudbury is thus becoming a centre for research

and development for the mining sector in Canada. This economic transformation of the last decade, they suggest, has been happening behind the scenes, similar to the way clustering is occurring in forestry.

This paper is not a comprehensive study of the economy of Northern Ontario. Other sectors such as agriculture and tourism should be considered. There are approximately 3,000 farms in Northern Ontario, whose products bring about \$150 million into the economy of the north each year. *The Canada Country Study, Climate Impacts and Adaptations* predicted that climate change is likely to increase opportunities for the development of new crop types and new agricultural areas, and the north of the province could experience a net gain in agricultural production. Temperatures for winter 2001/2002 for Manitoba and Ontario have been 4.5°C above normal, and over the past 55 years there has been an increase of 1.7°C above the mean temperature. Specific data is not available on the impact of climate change on agriculture, but the Development Corporation of Thunder Bay indicates that the fastest growing sector in the agricultural industry in the area is fruit and vegetable production. This factor may be related to climate change in the area, which may be leading to more favourable conditions for growing fruits and vegetables.

Tourism is also an important contribution to the economy of Northern Ontario. The Ministry of Northern Development and Mines estimates that in 1996, tourists spent about \$1.2 billion in the north, employing approximately 34,000 people and generating tax revenues of \$346 million for northern municipalities, the province and the federal government.

Information on the tourism industry in the north is, again, sporadic, but an interesting statistic on the Sudbury Fact Book shows that although 90 per cent of visitors to the Rainbow County area were from Ontario, tourists from the USA and other countries proportionally spent more money. If the same is true for the entire north, any strategies to increase tourism in Northern Ontario should focus on international and US markets.

Table 3: Tourism Expenditures and Visitors - Rainbow Country by Place of Origin

Origin	Expenditures (millions \$)	(%)	Visitors (000s)	(%)
From Ontario	\$215.5	77.2%	1,986	90.0%
From USA	\$47.9	17.2%	140	6.3%
From Other Provinces	\$6.2	2.2%	43	1.9%
From Other Countries	\$9.4	3.4%	38	1.7%
Total	\$279.1		2,207	

Source: Statistics Canada - 1999 Canadian Travel Survey, 1999 International Travel

Clustering in tourism, as in mining and forestry, is also important. The Dynamic Earth project, to be built next to Science North in Sudbury, will add to the existing critical mass of tourist attractions in the area that build on the history and legacy of the mining industry. The scope of both of these attractions should increase the number and length of stay of tourists in the region, resulting in significantly higher expenditures.

Tourism spending in Ontario increased from \$13,039 million in 1996 to \$16,540 million in 1999, according to the Tourism Regional Economic Impact Model provided by Statistics Canada, Canadian Travel Survey and the Ontario Ministry of Tourism, Culture and

Recreation. The six counties or tourist regions (Almanguin-Nipissing, Rainbow County, Algoma country, James Bay Frontier, North of Superior, Sunset County) of Northern Ontario accounted for 8.14 per cent of this total. The total number of jobs (direct, indirect and induced) created by tourism in Northern Ontario in 1999 was 39,938, representing 9.38 per cent of total jobs in tourism for the province. Table 4 presents the 1999 economic impact (expenditure and employment) of tourism by county for Northern Ontario in comparison with the province as a whole.

Table 4: 1999 Economic Impact of Tourism in Ontario by Tourism Region (000\$)

	Almanguin Nipissing	Rainbow County	Algoma Country	James Bay Frontier	North of Superior	Sunset Country	Total Northern Ontario	Total Ontario
Initial Expenditure	\$151,852	\$279,468	\$226,450	\$112,177	\$228,229	\$348,428	\$1,346,604	\$16,539,836
% of Total of Northern Ontario	11.28%	20.75%	16.82%	8.33%	16.95%	25.87%		
% of Total of Ontario	0.92%	1.69%	1.37%	0.68%	1.38%	2.11%	8.14%	
Employment (jobs)	4,255	9,324	7,155	3,553	7,207	8,444	39,938	425,893
% of Total of Northern Ontario	10.65%	23.35%	17.92%	8.90%	18.05%	21.14%		
% of Total of Ontario	1.00%	2.19%	1.68%	0.83%	1.69%	1.98%	9.38%	

Source: Statistics Canada, Canadian Travel Survey and International Survey
Ontario Ministry of Tourism, Culture and Recreation, Tourism Regional Economic Impact Model

4.0 SUSTAINABLE COMMUNITIES

4.1 Belonging to the North

Belonging to a community creates a shared sense of place, of identification with the environment that is part of that place. In *A Vast and Magnificent Land: An Illustrated History of Northern Ontario*, editors Bray and Epp evoke that shared sense of the place we know as Northern Ontario.

In some it has stirred romantic visions of untamed wilderness, inhabited by hardy adventurers living in harmony with nature - the original "True North, strong and free." For others, it has evoked quite a different picture, one of a cold, isolated forbidding land that continuously challenges the right of man even to exist within its confines.

Northern Ontario has been cursed as a great rocky barrier, splitting the upper half of the North American continent and hampering orderly, westward movement of first the French, then the British, and finally the Canadians themselves. It has also been blessed as a limitless storehouse of natural resources – furs, timber, minerals, and agricultural lands. These images of the past both mask and reflect the realities of life in Ontario's northland. (Bray and Epp, p.7)

4.2 Making Communities Sustainable

Although sustaining community in the face of the boom and bust cycle of resource communities is a challenge whose outcome is often controlled by external forces, the people who live in these northern communities are increasingly working for the health and survival of their communities. Moreover, the breakdown of community and its capacity to sustain itself is a phenomenon occurring on many fronts in Canada and the developed world. In *No Place Like Home: Building Sustainable Communities*, the author Marcia Nozick outlines five reasons for community breakdown:

- **Economic de-industrialization**, which is leaving people in small towns and urban communities unemployed because of plant closings. In resource communities, the situation often extends to the closing of an entire community.
- **Environmental degradation**, which is polluting local water supplies and the air. According to the Environmental Commissioner of Ontario, there are 6,000 abandoned mines in Ontario, with the vast majority in the northern region. Over 2,000 mines have reverted to provincial ownership. Many of these mines, the Commissioner maintains, require remediation of significant existing problems and proper decommissioning.
- **Loss of control over local communities**, with major economic and political decisions made by governments, or by companies which have little stake in the community except profit making.
- **Social degradation and neglect of basic human needs** mean that increasing numbers of people in these communities are disadvantaged, marginalized and living in substandard conditions. In its Population Health Status Report 2000, the Northwestern District Health Council pointed out that the mortality (Standardized Mortality Ratio) for all leading causes of death in northwestern Ontario is 14 per cent higher than that for the province as a whole. Death and injuries were 84 per cent higher and cardiovascular disease 17 per cent higher than in the province. Statistics in the Sudbury and District Public Health Unit also show that mortality is higher than that for Ontario as a whole, with all cancers and circulatory diseases having a significantly higher death rate. (In 1996 the age-standardized rate per 100,000 for all cancers was 202.5 in the northeast and 180.5 for Ontario. All circulatory diseases for northeastern Ontario are 296.3 per 100,000 population and 245.7 for Ontario.)
- **Erosion of local identity and cultural diversity.** Maintaining a sense of place in the face of the Global Village is a critical element of sustainability.

Building sustainable communities and rediscovering a sense of place can be achieved only “if communities are more self-supporting and can sustain and regenerate themselves through

economic self-reliance, community control and environmentally sound management.” Communities worth preserving are those “grounded in the life experiences of the people who live in them and in the natural histories of the specific region” (Nozick, 1992, p.11).

The Government of Ontario has introduced a program, *The Northern Ontario Heritage Fund Corporation*, to improve the sustainability of northern communities. The fund is designed to assist northern communities in improving their economic viability and quality of life. One important element of this program is a new initiative to assist northern municipalities in upgrading the municipal infrastructure necessary to ensure the provision of safe, clean drinking water in Northern Ontario.

4.3 Home Grown Solutions

Many examples exist of communities or organizations striving for sustainability in Northern Ontario and achieving success. Though it is impossible to cite all of them, we highlight a few. Each example below demonstrates local residents’ spirit of community, sense of place, and determination to protect the culture, environment or heritage of their communities.

4.3.1 Northwatch

Northwatch, a regional coalition of environmental and citizen organizations and individual members, has a pro-north perspective and represents the issues and particular interests of the northeast, primarily in the area of mining, forestry, energy, and waste. Northwatch’s Brennain Lloyd generalized the challenges to sustainability in these areas as:

- *environmental burdens, both incremental and cumulative*
- *permissive environmental regulation*
- *inappropriate government subsidies*
- *lack of community control*
- *external corporate and government controls, rather than internal to Northern Ontario*
- *institutionalized economic pressures*
- *perceived lack of economic alternatives*
- *entrenched acceptance of environmental damages and economic disadvantages.*

Founded in 1988, Northwatch promotes a sustainable north. It believes that

Northern Ontario has been regarded as an economic commodity rather than community, and this must change; the north must realize a long term objective of diversifying the economy while maintaining the natural resource base and making the best use of those resources which are extracted. To this end, economic and social decisions must be made with the priority of creating and contributing to a sustainable north, largely done by recognizing the inseparability of environmental and socio-economic concerns.
(www.onlink.net/~nwatch/about.html)

Northwatch actively oversees issues of environmental and ecological protection on a regional level. It works with groups to develop regional positions, makes representations on issues of concern in the area, monitors ongoing issues of concern and supports environmental education programs.

4.3.2 Sudbury District Energy System

The Regional Municipality of Sudbury, playing a leadership role in helping the community to reduce energy consumption and associated greenhouse gas emissions, initiated the development of a Strategic Energy Plan in 1995. A detailed energy audit of 30 key municipal facilities (representing 85 per cent of the municipality's energy consumption) came up with 86 potential retrofit projects and projected reductions in both annual energy costs and CO₂ emissions. The projected cost of the total project was \$6.4 million, but the proposed retrofits should result in annual energy savings of \$1.1 million, or 32 per cent of energy cost in a payback period of only 5.8 years. The improvements should result in the creation of up to 300 new jobs within the community over a 25-year period, and reduce the municipality's CO₂ emissions by 28 per cent. The Council approved the implementation plan in 1997 (ICLEI, August 2000).

Carrying out this project took vision, leadership and the ability to see beyond the traditional ways of doing things. The municipality first signed an agreement to work with the International Council for Local Environmental Initiatives Energy Services, and in the process, worked with public and private sector partners as well as external consultants. The project is successful because of partnership – the creation of a steering committee composed of private and public sector partners, regional staff, councilors, provincial utilities, local utilities and the external consultants. As a result of this experience, the municipality has expanded its knowledge base in environmental management. In addition, Sudbury plans a public education plan to improve local awareness about climate protection in general. By focusing on economic efficiency and growth, Sudbury is also providing local and global benefits through the reduction of greenhouse gases (ICLEI, August 2000).

4.3.3 Northern Ontario Tourism Associations

Northern Ontario Tourist Outfitters

Northern Ontario Tourist Outfitters is a non-profit association networking 485 tourism operators throughout Ontario's north. It is a portal through which potential tourists can plan vacations that range from hunting or fishing expeditions to nature adventures. All aspects of travel, from accommodation in member-operated lodges, resorts, camps, and camping/trailer parks to rental of canoes or motorboats and fly-in services located in the northern wilderness, can be accessed through its web site.

Northern Ontario Native Tourism Association (NONTA)

The Northern Ontario Native Tourism Association, based in Thunder Bay, is a non-profit corporation formed in 1987 to represent First Nations communities involved in tourism. It plays a vital role in the development and marketing of the cultural and heritage tourism

endeavours of First Nations communities in Northern Ontario. The overall mandate of NONTA is to provide advice and assistance to First Nations entrepreneurs, communities and organizations for the development of tourism products for which there is a market demand. More specifically, it:

- advises and assists First Nation tourist operations and programs for effective and efficient management.
- gives marketing assistance and services to established member tourist operations.
- generates revenue to support NONTA's activities and thereby reduce dependency on native and non-native government grants
- provides tourism expertise to First Nation political and economic development organizations that are financial supporters of NONTA.
- works with other native and non-native tourism organizations in a manner that is consistent with the well being of NONTA and its clients.

By networking and facilitating native tourist operations in Northern Ontario NONTA gives one entry point (portal) for tourists interested in experiencing the various aspects of native culture, heritage and traditions. In a telephone conversation, NONTA's Bill Rogoza stressed that the organization is community-driven and responds to the needs of each community in four key aspects of tourism: product development, training, community awareness, and market demand. Working with the communities, the organization strives for high-quality, flexible tourism packages that meet the varying needs of tourists as well as preserving and retaining pride in the inherent cultural values of the various First Nations involved. These efforts toward self-reliance and self-determination will set First Nations communities on the pathway to sustainability.

4.3.4 Community Resilience

Much has been written about Elliot Lake as a success story in community resilience, but other communities in Northern Ontario have also demonstrated resilience. Just as in Elliot Lake, the closure of a mine and the threat of community collapse, in Atikokan and Manitowadge also led to a determination to survive and concerted efforts to ensure the continuity in each of these communities.

Elliot Lake, the largest of the three communities, is located about 40 kilometers off the main Trans Canada highway half way between Sudbury and Sault Ste. Marie. The town's was founded on uranium mining. Closure of the mines between 1991 and 1996 led to a decrease in population from approximately 18,000, in the mid-1980s to 13,588 in the 1996 census. Careful managing of the downsizing by the City Council and efforts to diversify the community led to its revival as the Retirement Capital of Northern Ontario. David Robinson, of Laurentian University, considers that the success of Elliot Lake was due to:

- *very cheap housing*
- *good infrastructure*
- *sound municipal financial position*
- *transitional funding preventing tax hikes*

- *existing retirement population*
- *extended transitional period.* (Robinson, October 1999, p.11)

The mayor of Elliot Lake, George Farkouh, attributes the survival of the town to “*hard work, innovation and perseverance and...the spirit to survive.*” (Farkouh, 1992, p.148)

Atikokan, located in northwestern Ontario halfway between Thunder Bay and Fort Frances, survived the closure of its iron ore mines in 1979 and 1980. It achieved this through diversification, with a particle board factory, tourism, the opening of two government service offices, as well as through using the community as a base camp for forestry workers (Johnston and Lorch, 1996, p.41). Manitouwadge, located between Sault Ste Marie and Thunder Bay, about 60 kilometers off the Trans Canada highway, became the community of choice for the opening of new gold mines within its geographic area following the closure of mines in the early '80s. In each case, write Margaret Johnston and Brian Lorch, there was a realistic view of the impact the closures would have on the community, and the realization that although the community may indeed become smaller, there was a strong determination to survive. The 2001 Population Census figures, however, show further declines in the population by 13 per cent for Manitouwadge, 12 per cent for Elliot Lake and 10 per cent for Atikokan. The hard work is not over. The quest for a sustainable future is ongoing.

C.M. Wallace (1992, p.13-14) suggests that it is time to reconstruct the history of communities in Northern Ontario. Instead of lumping them together, it may be more appropriate to compare them, not just to others in the north, but also to communities of their era and size from across Canada. Comparing communities in Northern Ontario to those in Eastern Canada or communities of a similar size in Saskatchewan or Quebec will give us a more realistic picture, Wallace writes. Although most Northern Ontario communities are resource-based, each has a different history, different ethnic composition and different leadership base. These communities now have 50-to-100-year histories, and understanding the uniqueness of each community may help us to cast light on future policies and programs that may assist governments at all levels to design programs to ease community transition.

4.3.5 Community Restoration

Restoring the landscape of Sudbury, damaged by the almost a century of industrial activity from the smelting operations of the mines, was a powerful stimulus to an alliance of groups and individuals who came together in the early 1970s to plan, develop and implement a land reclamation program for the city. The groups recognized that this was a long-term commitment. Emissions from the smelters since the early days of the city fouled the air, destroyed vegetation and devastated aquatic life over hundreds of kilometers. An improved environment would take decades of careful planning and restoration activity. With the expertise of ecologists from Laurentian University and active participation by the municipal government, the Vegetation Enhancement Technical Advisory Committee was formed and Regional Land Reclamation became a program of the municipal government in 1970s.

Thirty years and many national and international awards later, the city of Sudbury once again has tree-covered hills and an increasing population of animals and insects. A positive and unanticipated sideeffect is the reduction of acidity in the region's lakes and rivers, which

prompted an area-wide aquatic restoration program. The Regional Land Reclamation program generated over 3,000 jobs and also inspired a greater sense of pride in the local environment.

4.3.6 Local Economic Trading System or LET\$

Pioneered in Canada by Michael Linton of Courtney, B.C., in 1983, the Local Economic Trading System, or LET\$, is now operating across Canada and in the United States, Great Britain, Australia, New Zealand and several European countries. The concept is simple: establish a local currency which enables the residents of a town or region to exchange goods and services in a way that guarantees that the currency stays local. At the core is a desire for more control and less vulnerability within a geographically defined area. There are now about 2,000 local currency systems in operation today.

LET\$ is an answer to growing economic marginalization, as well as an attempt to reintegrate the informal economic base into society, claims Russell Nelson, who studied community currencies for his degree in community economics at Simon Fraser University. A group of citizens, recognizing the value of the system, set up a LET\$ exchange in North Bay. The system there now has over 45 members participating in the network.

4.4 Sustainability – An Ongoing Issue

Sustainability is an issue that all Northern Ontario communities must face. Whether we are considering small northern towns that are losing the natural resources upon which their jobs depend, or larger northern centres where unemployment, poverty and crime are eroding the quality of life and encouraging northern youth to depart in search of better economic opportunities. Throughout this paper, we have discussed some key economic and social indicators for Northern Ontario and northern communities. These indicators are an attempt to measure whether we are getting better or worse at providing all members of northern communities with a productive, enjoyable life, both now and in the future.

5.0 CHALLENGES TO SUSTAINABILITY

The challenges presented below are not necessarily based on the preceding text. I read an enormous amount of literature, reviewed web sites and talked to as many people familiar with the north as possible in the short period I had to complete this paper. Some of the challenges listed below are more speculative than others.

5.1 Information on Northern Ontario: Sporadic and Inconsistent

A single information source or portal would allow community groups, businesses, development organizations and local governments to access key socio-economic data in a structure and format appropriate for use by communities in the north. This has been done in Newfoundland and Labrador by the provincial government for economic zones based on Statistics Canada's Census Divisions and Subdivisions and enhanced by provincially created Geographic Information Systems and other provincially generated statistics.

5.2 Divided Municipal Associations: Counterproductivity

There are currently two municipal organizations – the Northern Ontario Municipal Association (NOMA) in northwestern Ontario and the Federation of Northern Ontario Municipalities (FONOM) in the northeast. The geography and the history of development in Northern Ontario may have led to this structure, but the population base is such that today one organization would have a greater voice with the provincial and federal government. Technology is capable of bridging the geographic barriers that exist.

5.3 Access to and through Northern Ontario

Access to and travel through Northern Ontario is a challenge. This presents a barrier not only to the movement of goods and services but also is a deterrent to tourists from all locations. Establishment of a four-lane road transportation corridor is the first item on the agenda of the North Bay Economic Development Corporation Plan. Maintenance of current secondary rail and road systems is vital to the communities they serve. Equally important is an adequate Trans Canada highway linking Northern Ontario to provinces east and west of Ontario.

5.4 Synergy and Clustering for Development

Examples in this paper demonstrate that building on existing strengths in natural resources such as mining and forestry increases not only the development potential but also the probability of establishing successful ventures. Synergy requires cooperation and working in non-traditional ways by collaboration with the private sector, governments and non-profit organizations. This kind of cooperation is probably not happening as often as it should be. The Dynamic Earth project under way in Sudbury, adjacent to Science North, is a good example of how synergy can contribute to increasing revenues of two initiatives.

Successful tourism initiatives usually thrive on regional cooperation, specifically targeted, and on well-timed government initiatives. Note, for example, in the province of Newfoundland and Labrador, with only 500,000 people, much has been achieved through the promotion and development of tourism. All levels of government (federal, provincial and municipal) have cooperated in planning, financing, managing and promoting major events such as Cabot 500, Viking 1000 or the Marconi celebrations. Opportunities clearly exist in Northern Ontario to build on the existing native heritage and cultural tourism as well as native arts and crafts. Other possibilities include capitalizing on the history of the early Northern Ontario fur trade and mining initiatives.

The Government of Ontario, given the disadvantages of the north in terms of infrastructure, should provide more leadership for the coordination and strategic development of a long-term tourism policy and actively participate as a partner in its execution.

5.5 Municipal Contingency Funds and the Provincial Government

In a major study undertaken by Laurentian University on the closure of Elliot Lake's uranium mine – *Boom Town Blues* – Robinson and Bishop (in Chapter 16) observed that provincial governments tend to punish those communities that have accumulated reserves by reducing transfer payments. They point out that this also reduces the capacity of the community to deal with economic downturns. This is exacerbated by the fact that in these communities, the tax base will be reduced because of an aging population and a declining industrial presence.

5.6 Aging Population

The population of Canada is aging, and projections show that by the end of the first quarter of the 21st Century, one-fourth of the population of the major cities in Northern Ontario – Thunder Bay and Sudbury – will be over 65. This is double the current population over 65 and 3 per cent higher than the provincial and national average. Planning now for this aging population, for their infrastructure needs (hospitals, retirement/intensive care homes, etc.), and for the capacity to meet their medical/health service needs will allow northern communities to prepare for the population transition.

Measures should be undertaken to alleviate youth migration and encourage careers in the care of the aging through courses in local colleges, universities and training facilities.

5.7 Innovative Approaches for Future Economic Development

Some examples of potential innovative approaches to enhance economic development in Northern Ontario are presented below:

- **A Pro-North “Ambassador” Program:** The government of Newfoundland and Labrador started “The Ambassador” program to promote and showcase successful business achievements of those living outside the province. The aim of the program is to support and expand the export development of products and services using prominent and successful Newfoundland and Labrador entrepreneurs who now live outside the province. This policy has had the secondary effect of attracting those successful entrepreneurs to invest and start new enterprises within their home province, based on their extensive knowledge and experience in a given industry. On occasion they return to live in the province, but typically these entrepreneurs provide venture capital and access to key research and development and investment contacts, which nourishes the growth of local enterprises. A similar policy may very well work for Northern Ontario, especially given its proximity to major centres such as Ottawa and Toronto.

- **Linking Educational and Environmental Strengths:** Northern areas are acquiring substantial experience in environmental redress. This can be translated into traditional or e-learning training opportunities for Northern Ontario universities and colleges to address overseas demands from countries with similar problems and to attract foreign students to the universities.
- **Identification and Development of “Attractors”:** An aging population has more disposable income. Promoting unique tourist opportunities such as NONTA as “attractors” will draw people to the area who may not otherwise come. The experiences provided through innovative cultural and heritage tours in the NONTA network are increasingly in demand.
- **Building on the Needs and Strengths of the North:** Northern Ontario is geographically large, with a dispersed population that could benefit from new methods that would facilitate the delivery of health, social and educational services to rural and remote areas of the north. New enterprises can be established in conjunction with existing medical facilities and health initiatives (The Centre for Rural and Northern Research) of Northern Ontario universities (Lakehead and Laurentian) to address these needs through the innovative use of evolving telecommunications (broadband, wireless and satellite internet) services. This initiative should build on the pioneering Tele-Health, Tele-Medicine and Tele-Education work at the University of Ottawa, the Communications Research Centre, March Networks, and Memorial University of Newfoundland. The initiative could also benefit from the synergy of – and provide synergy to – the proposed new medical school for Northern Ontario, the Northern and Rural Medical School (NORMS).

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INTERNET SOURCE MATERIAL FOR NORTHERN ONTARIO

A. Statistics on the Region

- (1) Population figures by community or Census Division available from Statistics Canada, www.statcan.ca
- (2) Human Resources Development Canada has an analysis by on the web www.on.hrdc-drhc.gc.ca/english/lmi/ore/cen96/north_e.html

Economic Region 590 (Northeastern Ontario)

- Population Characteristics
- Labour Market Characteristics
- Full-Time/Part-Time Work Activity

Economic Region 595 (Northwestern Ontario)

- Population Characteristics
 - Labour Market Characteristics
 - Full-Time/Part-Time Work Activity
- (3) The Northwestern District Health Council has a statistical report available on its site which includes geography and population density, population projections, ethnic origin, mother tongue and home language, socio-economic factors, income, education, lone parent families and population health statistics - www.nwodhc.com

B. Cities

The major Northern Ontario cities have web sites. Most city web sites follow the pattern of www.city.nameofcity.on.ca. Information is available on all the sites but some are more comprehensive than others.

- (1) **Sudbury** -The Web site for Sudbury includes a Key Fact Book that includes population, labour and employment, education, housing and development, market profile, infrastructure, etc., for the city. Sudbury has the most comprehensive statistics available on the web. It includes some comparative statistics on health for Sudbury: www.city.greatersudbury.on.ca/english/keyfacts/html
- (2) **Thunder Bay's Key Fact Book** includes general information and population census data, property development, lifestyle, economic foundations, other major sectors and government regulations and incentives

<http://devtbay.city.thunder-bay.on.ca/Factbook/sectionc.htm>

- (3) **North Bay**, www.city.north-bay.on.ca/statistics. See also the link to the Blue Sky Partnership through the city site <http://www.city.north-bay.on.ca/summit/index.htm>
- (4) **Sault Ste Marie**, www.city.saultstemarie.on.ca
- (5) **Timmins**, www.city.timmins.on.ca

C. Education

There are two learning sites on the history and toponymy of Northern Ontario

<http://geonames.nrcan.gc.ca/English/schoolnet/notes>
www.mndm.gov.on.ca/MNDM/history/northern_e.asp

D. Northern Ontario Business

www.nob.on.ca

E. Northern Ontario Tourism

www.getnorth.com
www.northernexperience.com

A conference on Eco tourism in Northern Ontario was held in Sudbury in early February. Information is available on the web site as well as links to operations and organizations at <http://www.eco-north2002eco-nord.ca/english/0060.lasso>

F. Northern Ontario Tourism

www.noto.net
www.nonta.net

G. Universities

- (1) Laurentian University in Sudbury, www.laurentian.ca. See also Institute for Northern Ontario Research and Development (INORD), <http://inord.laurentian.ca> and www.laurentian.ca/CRaNHR
- (2) Lakehead University in Thunder Bay, www.lakeheadu.ca. See also <http://flash.lakeheadu.ca/~strateco/mm.html> and www.lakeheadu.ca/CRaNHR
- (3) Nipissing University in North Bay, <http://www.nipissingu.ca>

H. The Northern Ontario Heritage Fund Corporation

http://www.mndm.gov.on.ca/nohfc/index_e.asp