Gathering Our Strengths

"A New Way of Developing Northern Resources"

JOINT ABORIGINAL-INDUSTRY
RESOURCE DEVELOPMENT PROGRAM
IMPLEMENTATION PLAN

Joint Aboriginal – Industry Resource Development
"Making It Happen"

Co-sponsors:

Kitikmeot Corporation
Tel: (867) 983-2095
Fax: (867) 983-2075

NWT Chamber of Mines
Tel: (867) 873-5281
Fax: (867) 920-2145

Deton' Cho Corporation
Tel: (867) 873-6533
Fax: (867) 873-5308

Dogrib Nation Group of Companies
Tel: (867) 873-6680
Fax: (867) 873-8670

Conference Co-ordinator:
Foodworks North Inc.
Tel: (867) 920-2953
Fax: (867) 669-7939
E-mail: coots@internorth.com

Letter of Transmittal

June, 1999

The Steering Committee of the Joint Aboriginal-Industry Resource Development Workshop is pleased to release this report describing the implementation plan for the Joint Aboriginal-Industry Resource Development Program. It is our sincere hope that the implementation of this program will be the start of a new way of doing business in the North. We strongly feel that this program is the only way to proceed and hope that federal and territorial governments have the courage to change from their traditional approach to economic development. Programs that try to be "all things to all people" and focus on "wealth consumers" have not had a lasting impact. Instead, we must focus on resource development as the foundation of wealth development.

We would like to acknowledge Minister Jane Stewart for her challenge to aboriginal development corporations and resource developers to work together and come forward with a new way of doing business in the North. In particular, we would like to express our gratitude for her encouragement and supporting words in our meeting in Ottawa on October 7, 1998. This document has been prepared to respond to her request at the meeting for a comprehensive plan and budget to implement our ideas for a new economic development program for the North.

We would also like to express our appreciation to Don Ference, Ference Weicker & Company, who assisted in capturing the ideas of the Steering Committee and developing this program implementation plan.

Yours sincerely,

Mr. Charlie Lyall
PRESIDENT,
KITIKMEOT CORPORATION

Mr. Mike Vaydik
EXECUTIVE DIRECTOR,
NWT CHAMBER OF MINES

Mr. Darrel Beaulieu
PRESIDENT,
DETON' CHO CORPORATION

Mr. Eddie Erasmus
PRESIDENT,
DOGRIB NATION GROUP OF COMPANIES

EXECUTIVE SUMMARY

The following paragraphs summarize the objectives, priorities, budget, and implementation plan for the Joint Aboriginal - Industry Resource Development Program.

Mission

The overall mission of the Joint Aboriginal - Industry Resource Development Program is as follows:

> "***To develop the mining/oil/gas industry in the NWT and Nunavut ".***

Rationale for Program

The program is required because the current roster of government development programs lack a non-renewable resource development focus and do not recognize the strategic importance of mineral/oil/gas activities to future economic growth. The current federal and territorial government policy base continues to focus on an "all things to all people" approach which has concentrated public funds on "wealth consumers" instead of "wealth generators". History has proven that broad programs attempting to give something to everyone have not worked, and that the impact is short lived.

The mining/oil/gas industry in the North is the key vehicle of job creation for northerners. There exists tremendous potential to develop the mineral/oil/gas industry in the NWT and Nunavut. Several new mines including diamond, gold and base metal mines could be established in the next ten years if the price of gold and base metals recovers to historical levels and government assistance is provided to encourage the development of new mines. In the oil and gas sector, increased oil and gas exploration and production has the potential to create as many as 1,000 to 1,500 new jobs in the next ten years. Therefore, a total of between 3,000 to 4,500 new jobs could be created by the mineral/oil/gas industry in the NWT and Nunavut in the next ten years. No other sector or industry is capable of generating such a large number of jobs in the NWT or Nunavut. As a result, stimulation of the mineral/oil/gas sector must be accorded the highest priority in order to achieve significant economic growth and job creation.

Key Program Priorities

The key priorities of the Joint Aboriginal - Industry Resource Development Program are as follows:

- Increase aboriginal corporate capacity

  Further developing the business strengths of Aboriginal corporations and related business structures is an essential ingredient to obtaining the desired level of Aboriginal participation in resource industries.

- Facilitate infrastructure projects

  By providing assistance to facilitate key infrastructure projects such as access roads and marine port facilities, there are numerous deposits in the NWT and Nunavut that could become producing mines.

- Accelerate geoscience activities

  Geological mapping is the single most cost-effective incentive that government can provide to

encourage mineral industry activity.

- Assist industry labour transportation

  With the current operating policies of the mining industry, which allow for transportation to and from mining and exploration sites from fixed pick-up points, unemployed people who want and need jobs cannot afford to get to these pick-up points and miss an important chance for full time rotational employment in the mining industry. These unemployed people require assistance to offset their transportation costs to enable them to gain productive and meaningful employment.

- Provide leadership in developing training and education initiatives for the mining/oil/gas industry.

  While the intent is not to fund actual training programs, some funding is required to investigate the feasibility of new training initiatives.

Program Delivery

A non-share capital corporation would be established to deliver the Joint Aboriginal - Industry Resource Development Program. The board of directors of the corporation would be responsible for establishing policies and approving funding for specific projects funded by the program. There would be a total of 9 members comprising the board of directors of the corporation. Three members of the board of directors would be appointed from each of the following three classes of stakeholders.

- Government (i.e. Government of Canada, GNWT and Nunavut subject to territorial government(s) providing a portion of the funding)
- Mining/oil/gas industry
- Aboriginal development corporations

A small staff of four would be responsible for the day-to-day delivery of the Joint Aboriginal - Industry Resource Development Program.

Program Budget

Annual program funding of $6 million is required for a minimum period of ten years. A minimum program life of ten years is required to undertake sufficient projects to create additional employment for northerners in the mining/oil/gas sector. As an illustration, it could take several years to undertake the necessary studies for some of the infrastructure projects such as the Bathurst Inlet port/road project. The program needs to be sufficiently long to be able to provide assistance throughout the entire planning stage of these infrastructure projects or they will be halted midstream with no other source of funding to complete the planning studies. Similarly, the process of building aboriginal corporate capacity will take several years.

The annual costs of delivering the Joint Aboriginal - Industry Resource Development Program are projected to be $550,000. The projected annual delivery costs of $550,000 amount to about 9% of the budgeted program expenses of $6 million per year. The program delivery costs are low compared to most government programs where program delivery expenses can be considerably higher for a program of this type. As an illustration, the evaluation of the most recent Canada-NWT EDA indicated that the total costs to deliver the EDA program were equivalent to 31% of the total spending on EDA projects. In addition to the annual operating costs, the one-time start-up costs of the program are estimated to be $200,000.

Program Benefits

The estimated benefits to be achieved over a ten year period are as follows:

1. Creation and successful operation of 10 businesses by aboriginal organizations that are related to the mining/oil/gas industry.

2. Facilitation of 5 incremental infrastructure projects that are key to the further development of mineral/oil/gas resources.

3. Incremental mineral exploration of $25 million as a result of undertaking additional mapping of areas with high mineral potential.

4. Increase in employment in the mining/oil/gas industry by 50 northerners in isolated and non-pickup point communities where transportation costs to areas of employment are prohibitive.

5. Development of at least one new education and training initiatives geared to the mining/oil/gas industry.

In total, the program is projected to act as a catalyst for the creation of an equivalent of 925 full time jobs for northerners through greater participation in and development of the mining/oil/gas industry in the NWT and Nunavut. In addition, the program will leverage approximately $1 million in funding that would be provided by the program applicants as their equity contribution for the projects undertaken.

Implementation Plan

Approval of program funding is scheduled to be obtained from the participating federal and territorial governments by October 30, 1999. The program delivery agency would then be established by the end of March, 2000. As a result, the delivery of the Joint Aboriginal-Industry Resource Development Program is scheduled to commence on April 1, 2000.

TABLE OF CONTENTS

I. PROGRAM DESCRIPTION

The following paragraphs describe the background, mission, objectives, rationale and key priorities of the Joint Aboriginal - Industry Resource Development Program.

A. MISSION AND OBJECTIVES

The overall mission of the Joint Aboriginal - Industry Resource Development Program is as follows:

> "***To develop the mining/oil/gas industry in the NWT and Nunavut ".***

The specific objectives of the Joint Aboriginal - Industry Resource Development Program are as follows:

1. **Increase aboriginal corporate capacity to establish and operate businesses that are related to the mineral/oil/gas industry.**

2. **Provide assistance for the establishment of infrastructure projects that are key to the further development of mineral/oil/gas resources.**

3. **Stimulate additional mineral exploration by undertaking additional mapping of areas with high mineral potential.**

4. **Increase access to employment in the mineral/oil/gas industry by northerners in isolated and non-pickup point communities where transportation costs to areas of employment are prohibitive.**

5. **Provide leadership and coordination in the development of education and training initiatives geared to the mining/oil/gas industry.**

Table 1 contains a program model that indicates the program priorities and intended impacts of the Joint Aboriginal-Industry Resource Development Program.

B. BACKGROUND

In the fall of 1997, Department of Indian and Northern Affairs Minister Jane Stewart challenged Aboriginal groups and resource developers in the north to work together and chart the dimensions of a mutually beneficial economic development platform. Since then, aboriginal groups and representatives of the mining industry have undertaken extensive planning and have developed a new economic development program to meet Minister Jane Stewart's challenge.

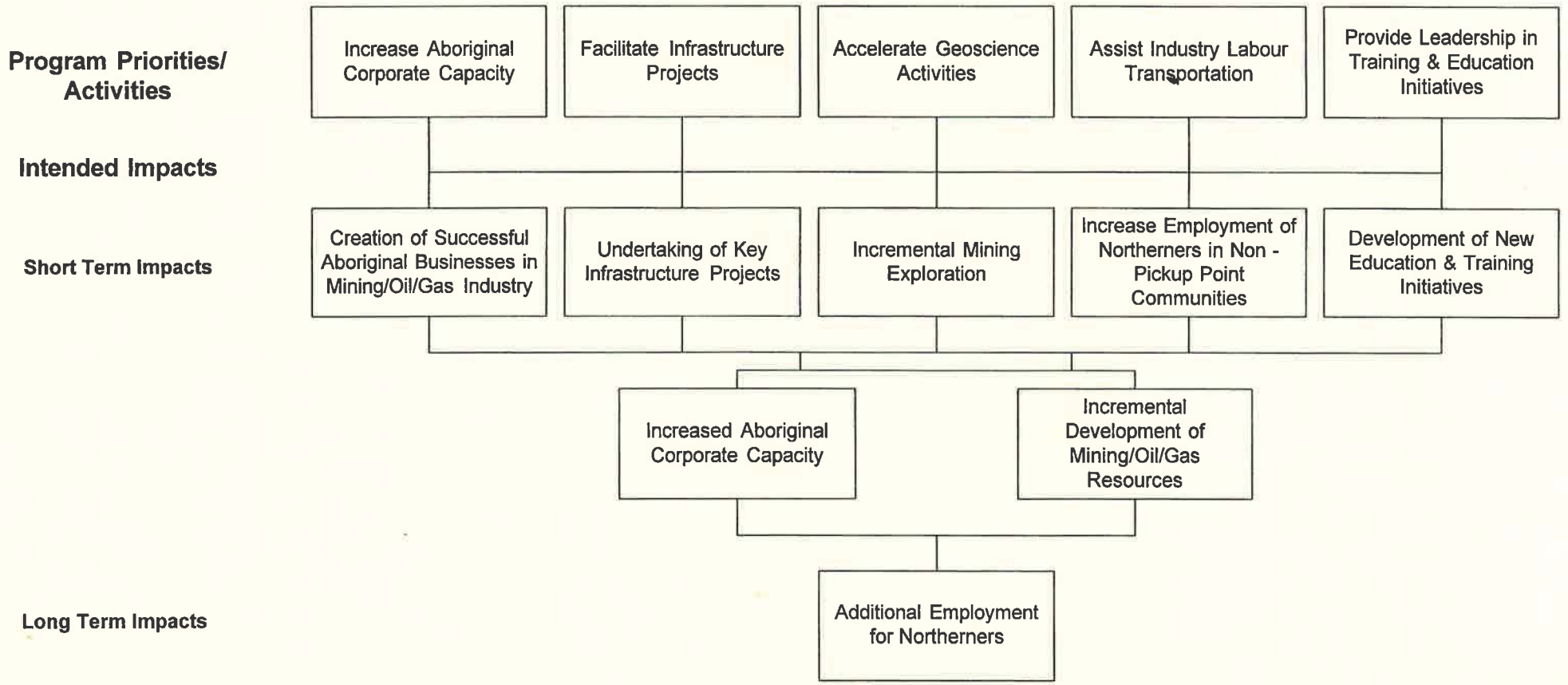
To develop the new program, a Joint Aboriginal - Industry Resource Development Forum on Realizing Industrial Benefits was held on June 9 th and 10th, 1998 in Yellowknife. The sponsors of this forum were the Dogrib Nation Group of Companies, Deton Cho' Corporation, Kitikmeot Corporation and the NWT Chamber of Mines. Over 100 representatives of the mining industry and aboriginal groups attended the forum and developed the concepts for a new economic development program entitled the Joint Aboriginal - Industry Resource Development Program.

On October 7, 1998, representatives of the mining industry and aboriginal groups met with Minister Jane Stewart of the Department of Indian Affairs and Northern Development (DIAND) to discuss the new

TABLE 1

JOINT ABORIGINAL-INDUSTRY RESOURCE DEVELOPMENT PROGRAM

PROGRAM MODEL



economic development program. Minister Stewart overwhelmingly supported the concepts for the new program and stated that she would use them as a model for other areas of Canada. She also directed the representatives of the forum to provide her with a comprehensive plan and budget for implementing the program in the north.

Since this very positive meeting with the Minister of DIAND, the sponsors of the Joint Aboriginal - Industry Resource Development Forum have worked hard to develop a comprehensive plan and budget to implement the proposed new economic development program for the north. In-depth consultations have been undertaken with resource development industry representatives, aboriginal groups and federal and territorial government representatives to determine the most effective means of accelerating resource development and developing aboriginal corporate capacity.

C. NEED FOR PROGRAM

Some of the major reasons why the Joint Aboriginal - Industry Resource Development Program is needed are as follows:

1. The current roster of government development programs lack a non-renewable resource development focus and do not recognize the strategic importance of mineral/oil/gas activities to future economic growth.

   Support programs such as the Federal - Territorial Economic Development Agreements (EDA's) and other program structures such as the Canada Aboriginal Economic Development Strategy (Aboriginal Business Canada, Human Resources Development Canada and DIAND) have not accounted for the needs of industry with respect to maximizing industrial benefits.

   The current federal and territorial policy base continues to focus on an "all things to all people" approach which has concentrated public funds on "wealth consumers" instead of "wealth generators". History has proven that broad programs attempting to give something to everyone have not worked, and that the impact is short lived.

2. The mining/oil/gas industry in the North is the key vehicle of job creation for northerners.

   As indicated in Appendix 1, there exists tremendous potential to develop the mineral/oil/gas industry in the NWT and Nunavut. Several new mines including diamond, gold and base metal mines could be established in the next ten years if the price of gold and base metals recovers to historical levels and government assistance is provided to encourage the development of new mines. The development of new mines and increased mineral exploration could result in the creation of at least 2,000 to 3,000 new jobs in the mineral sector.

   In the oil and gas sector, increased oil and gas exploration and production has the potential to create as many as 1,000 to 1,500 new jobs in the next ten years. Therefore, a total of between 3,000 to 4,500 new jobs could be created by the mineral/oil/gas industry in the NWT and Nunavut in the next ten years.

   Considering that there are about 27,600 people employed (1996 census) in the NWT and Nunavut, the mineral/oil/gas industry could result in an increase of almost 20% in the total number of jobs available. No other sector or industry is capable of generating such a large number of jobs in the NWT or Nunavut within the next ten years. As a result, stimulation

of the mineral/oil/gas sector must be accorded the highest priority in order to achieve significant economic growth and job creation in these two territories.

3. Past attempts to provide employment for northerners in the mining/oil/gas industry have had limited success, particularly for aboriginal people.

   As an illustration, targets of 60% Inuit labour were initially set for the Nanisivik mine on north Baffin Island. However, less than 10% of the current workforce at the Nanisivik mine are Inuit. Prior to the establishment of the Ekati mine, it was estimated that 60% of the workers in the NWT mining industry were northern residents, but only 10% of these northern workers were aboriginal. The Ekati mine has had considerable success in providing employment for local people as 75% of current employees are northerners. However, aboriginal people still make up a very small proportion of the total workforce of the mining industry.

4. Aboriginal development corporations are emerging as one of the primary instruments of increasing benefits from resource development activities.

   Because resource developments are primary building blocks of the northern economy, aboriginal groups recognize that their future depends on the development of mining, oil and gas resources. Aboriginal corporations are building capacity to increase their participation in resource development but more needs to be done. To ensure that the benefits of resource development reach the target Aboriginal populations, Aboriginal corporate capacity must be further enhanced and developed.

5. There is a pressing need to integrate the efforts of all stakeholders to ensure that maximum benefits from development of mining/oil/gas resources accrue to Aboriginal groups and northerners alike.

6. Industry and potential beneficiaries of industrial development have not had a significant opportunity to participate in identifying program support needs and establishing program funding priorities.

7. There is no coordinated approach to developing federal and territorial economic development programs which significantly involve industry and Aboriginal stakeholders.

   One of the key conclusions of the Joint Aboriginal - Industry Resource Industry Development Forum is that successful and substantiative northern economic development depends on the willingness of resource developers, Aboriginal development corporations and government agencies to work as a single force in charting and advancing resource development activities in all regions - whether in the new Nunavut Territory or in the remaining parts of the Northwest Territories. Past practices of a fragmented and disparate development plan and policy base can not be expected to provide the foundation needed to change the way business is done throughout the north. What is required is a common agenda - one which recognizes the central importance of both Aboriginal groups and resource developers as leaders in the development process, with government policies, programs and agencies providing a supportive role.

8. The Joint Aboriginal-Industry Resource Development Program is compatible with the federal government's plans to develop a new northern economic development strategy.

   The mandate for a new northern economic development strategy was provided in the 1998

budget of the Government of Canada. The 1998 Budget Plan indicated that "the economies of Canada's territories, like other regions, are undergoing significant change. Northern governments are pursuing the diversification of their economies in a variety of ways including the development of traditional economic activities, knowledge-based industries and a new diamond industry. The government is committed to working with territorial governments and other northern partners to develop a modern economic development strategy that recognizes the dynamics of the North and the need to establish more diversified economies".

In summary, given the current development and socio-political climate in the North, there is really only one major policy and programming initiative that could bring about significant change in northern development. This is in the form of two strategic thrusts:

1. A refocusing of current policy to recognize the importance of wealth generating sectors such as the mining/oil/gas sectors and the role they can play in advancing Aboriginal economic development throughout the North; and

2. A shift in support structures from a disparate set of programs, each with its own policy base and administrative guidelines and delivery approach, to a single integrated strategic development agency with a clear and focused mandate for development of the mining/oil/gas industry.

D. KEY PROGRAM PRIORITIES

The key priorities of the Joint Aboriginal - Industry Resource Development Program are as follows:

- Increase aboriginal corporate capacity
- Facilitate infrastructure projects
- Accelerate geoscience activities
- Assist industry labour transportation
- Provide leadership in developing training and education initiatives

The following paragraphs describe the program activities required to accomplish each of the above key priorities of the Joint Aboriginal - Industry Resource Development Program.

1. Increase Aboriginal Corporate Capacity

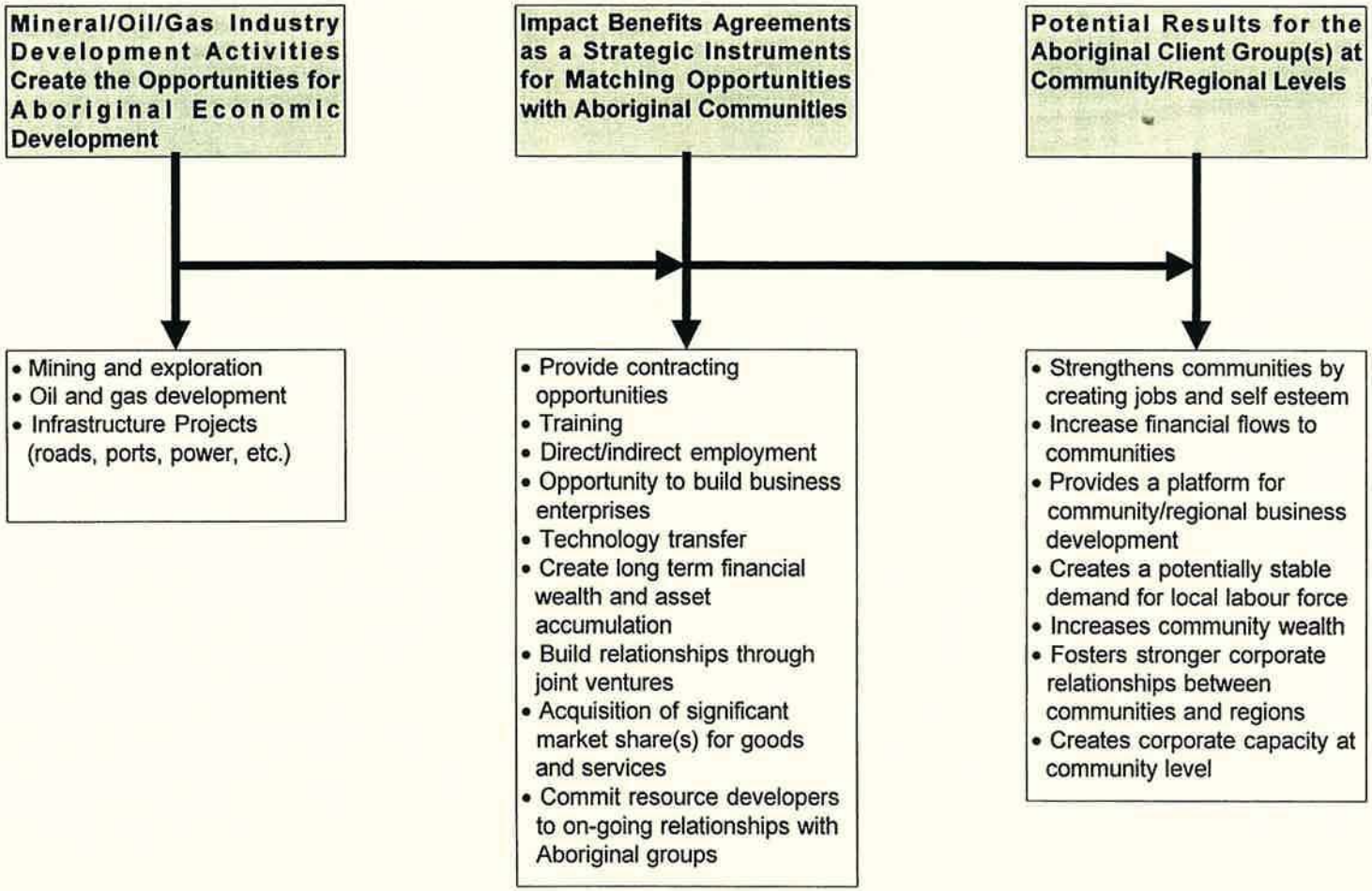
a. Rationale

Aboriginal participation in resource development has been a long slow process. Major impediments have included the limited corporate and financial capacity of Aboriginal organizations and communities. Further developing the business strengths of Aboriginal corporations and related business structures is an essential ingredient to obtaining the desired level of Aboriginal participation in resource industries.

With the settlement of several land claim agreements throughout the North, aboriginal groups have acquired some very important strategic tools regarding economic benefits from resource development in their claim areas. Through constitutionally enshrined provisions in land claim agreements with aboriginal people,

TABLE 2

ABORIGINAL ECONOMIC DEVELOPMENT PARADIGM



Impact Benefits Agreements (IBA's) are beginning to provide the framework for building economic capacity so aboriginal people can take advantage of resource development opportunities in the long term. Impact Benefits Agreements represent multi-million dollar business opportunities for aboriginal groups if they have the business vehicles in place - strategically positioned to take advantage of current and impending resource development. Through Impact Benefits Agreements, aboriginal groups can now become full partners in resource development activities, and thereby increase their economic and corporate capacities.

Table 2 contains an Aboriginal Economic Development Paradigm adapted from the report entitled *The Need for Aboriginal Corporate Capacity - Getting The Benefits From Resource Development Opportunities.* As indicated in Table 2, mineral/oil/gas industry developments create the opportunities for aboriginal economic development. Impact Benefits Agreements are strategic instruments for matching these opportunities with aboriginal communities. Some of the different economic development opportunities available to aboriginal communities as a result of Impact Benefits Agreements include contracting opportunities, training, employment, establishment of business enterprise, technology transfer, acquisition of market share for the supply of goods and services, and the commitment of resource developers to on-going relationships with aboriginal groups.

Aboriginal corporate capacity is defined as "the forging of a strong business capability aimed at producing cash flow and building a strong financial foundation for future development priorities within regional aboriginal organizations and at community levels". To date, efforts by aboriginal groups, the Federal Government and the GNWT have yielded some successes in building economic and corporate capacity with aboriginal organizations at the regional and community level. However, to ensure that the benefits of resource development reach the target Aboriginal populations, Aboriginal corporate capacity must be further enhanced and developed both at the regional and community level. Furthermore, until additional business and corporate structures are developed and in place, Impacts Benefits Agreements will be impaired in their ability to achieve the goal of flowing benefits to people in communities and building a solid financial footing for future wealth generation.

Aboriginal development corporations in the NWT and Nunavut do not have the financial resources to pay for business consultants and other technical consultants to assist them in investigating the feasibility of business opportunities related to the mineral/oil/gas industry. They also do not have the funds to hire qualified staff or pay for consultants to assist in undertaking due diligence of business opportunities and establishing joint ventures that could create employment for their members. The lack of financial resources to obtain qualified management support and necessary business advisory services is a serious impediment to capitalizing on the opportunities available.

The provision of business advisory assistance and management support to aboriginal economic development organizations is supported by the Final Report of the Royal Commission on Aboriginal Peoples. In this report, the Commission recommends that "Governments, as a high priority, improve their economic development programming by:

(a) Developing business advisory services that combine professional expertise with the detailed knowledge of aboriginal communities; and

(b) Placing these advisory services within the emerging economic development institutions of aboriginal nations".

Another section of the Final Report of the Royal Commission on Aboriginal Peoples indicates that economic activity is highly rationed in the North, and those opportunities that are available need innovative and skilled support measures to maximize their potential. It is no longer justifiable to fill development roles with generalists whose main activities have been to advise clients on government programs or hand out program funding. Resources would be better spent attracting highly skilled manager-consultants who combine

management experience with the ability to relate to local entrepreneurs. These people can develop a pool of trained local managers within the communities. Another recommendation of the Commission is that "Aboriginal, federal, provincial and territorial governments encourage innovative means of delivering skilled management support — including operations, financial and marketing expertise — to small enterprises through aboriginal economic development corporations".

b. Eligibility Criteria

The organizations eligible for assistance are regional and community aboriginal development corporations in NWT and Nunavut that are currently involved or planning to become involved in the mining/oil/gas industry or in the provision of goods and support services to the mining/oil/gas industry. The types of projects undertaken by aboriginal development corporations that would be eligible for assistance consist of the following:

- Financial assistance to undertake feasibility studies/business planning for resource related business enterprises.
- Assistance in identifying and facilitating partnerships and joint venture relationships.
- Financial assistance for structuring joint venture companies with resource developers.
- Interim management assistance for companies providing services to resource development companies.
- Assistance for due diligence assessment of mineral/oil/gas properties.
- Technical assistance in the development of Impact Benefits Agreements with resource companies.
- Financial assistance for acquiring technical resources in the implementation of Impact Benefits Agreements.
- Financial assistance for business opportunity identification and assessment studies.
- Assistance for resource specific training for boards of directors and senior management of aboriginal economic development corporations.

c. Funding Guidelines

Program funding of up to 80% of the total project costs would be available. The applicant would be responsible for obtaining the remaining funds for the project.

Some examples of projects that could potentially be funded by the Joint Aboriginal-Industry Resource Development Program to increase aboriginal corporate capacity are provided below:

- Provision of assistance to Liard Valley Band Development Corporation to hire consultants to assess the feasibility and undertake negotiations with joint venture partners regarding the construction of a pipeline connecting the Ft. Liard area to the Westcoast Energy pipeline in B.C.
- Feasibility studies of hydropower projects for the Dogrib Nation Group of Companies to

supply power to diamond mining and other mining companies in the North Slave area.

- Assistance to Sahtu Oil Inc. to identify and negotiate with potential joint venture partners to explore for oil and gas on their lands.

- Technical assistance to Sahtu Oil Inc. regarding the establishment of a oil drilling company.

- Assistance in undertaking opportunity identification studies on behalf of Dendendeh Development Corporation to increase their participation in the mineral/oil/gas industry.

- Assistance to enable Inuvialuit Regional Corporation to undertake due diligence assessment studies of Darnley Bay mineral resources. This assistance would facilitate a better understanding of the resource development potential and could include assistance in negotiating an appropriate IBA when the resources are developed.

- Assistance to the Hay River Band and three other Aboriginal communities who have agreed to jointly investigate opportunities to establish an oil and gas well servicing company.

- Assistance to the Kitikmeot Corporation in investigating the feasibility of establishing a floating diesel power generating unit to sell power to mining companies.

- Feasibility study of truck stop in Edzo that would service trucks supplying the mining industry in the North Slave area.

The above projects alone are estimated to require between $1 to $2 million in funding assistance to obtain the necessary business consulting, technical expertise and management support to increase aboriginal corporate capacity. By including the requirements of other aboriginal development corporations in the NWT and Nunavut, it is estimated that approximately $5 million is required over the next five years which is an equivalent of approximately $1 million per year.

d. Benefits Achieved

The goal of the program is the creation and successful operation of 10 businesses by aboriginal organizations that are related to the mining/oil/gas industry. The primary benefit to be achieved is that it will enable aboriginal development organizations to quickly assess opportunities and mobilize the necessary resources to ensure that long lasting economic benefits accrue not only regionally, but down to the community levels as well. Increasing aboriginal corporate capacity will result in the following benefits:

- Greater business stability for aboriginal groups;

- Making available business expertise that is not normally accessible within communities and regions;

- Allow sound business practices to prevail; and

- Provide a strategic platform for greater aboriginal participation in resource industry development through business enterprise as the vehicle for growth.

The report entitled *The Need for Aboriginal Corporate Capacity - Getting The Benefits From Resource Development Opportunities* indicated that dedicating program resources of $1 million annually for the next decade for the purpose of creating a strong and healthy aboriginal corporate sector would result in positive

returns for both aboriginal groups and the federal and territorial governments. This study indicated that, over a ten year time frame, a 15% increase in aboriginal participation in a new mine development - both in terms of corporate and labour market participation - would result in the following benefits for aboriginal people:

- 375 person years of employment;
- Increase of approximately $24 million in direct wages;
- $22 million in potential construction and mine development contracting opportunities;
- $46.8 million in on-going supply and services contracting opportunities; and
- An overall increase in aboriginal wealth of $117 million over a ten year period.

With several mines being planned over the next decade, there is indeed enormous potential for making significant gains in aboriginal economic development.

2. Facilitate Infrastructure Projects

a. Rationale

According to a 1997 survey of Canadian mining companies by the Fraser Institute, over one half of the 52 mining companies surveyed indicated that the lack of infrastructure is a strong deterrent to investment in northern Canada. The lack of infrastructure increases the costs of exploration programs in the North. In addition, any potential development will face substantial costs for infrastructure development and/or transportation costs. For deposits to be considered economic in the North, they typically must be either richer (higher grade) or larger than deposits that are considered economic elsewhere.

The lack of important infrastructure - particularly access roads and marine port facilities - has impeded resource development for many years in Northern Canada. There are numerous deposits in the NWT and Nunavut that with the appropriate infrastructure (roads, power, ports, etc.) would be economic and could possibly be producing mines. As an illustration, one of the primary reasons that the world class lead zinc deposit at Izok Lake has not yet been developed is the lack of road and port infrastructure to ship out ore to processing facilities. There are a number of other mining properties (Goose, George, Lupin, Jericho and Ulu) near the Izok Lake deposit that could benefit from the road and port infrastructure required for the Izok Lake deposit. In other words, these other mining properties would become more economically viable and could become producing mines if the road and port infrastructure to develop the Izok Lake property were constructed.

If key infrastructure projects such as the Bathurst Inlet port/road project were undertaken, the viability of establishing new mines in the local area would be increased dramatically, particularly for base metal mines. The role of government should be to facilitate the development of key infrastructure projects such as roads and ports because the benefits achieved in terms of employment and government revenues are very significant.

b. Eligibility Criteria

The types of projects eligible for assistance are key infrastructure projects critical to the development of the mining/oil/gas sectors in the NWT and Nunavut. The organizations eligible for assistance include aboriginal development corporations, mining companies, consortiums and other organizations that are involved in the development of key infrastructure projects. The different types of activities that would be eligible for

assistance by the Joint Aboriginal - Industry Resource Development Program include the following:

- Feasibility studies and other studies (e.g. environmental studies, transportation planning studies, hydrographic surveys for port developments, etc.) required to assess the viability of key infrastructure projects.

- Non-repayable contributions to assist financing of small key infrastructure projects.

c. Funding Guidelines

Program funding of up to 80% of the total project costs would be available. The applicant would be responsible for obtaining the remaining funds for the project.

Over the next ten years, the amount of funding required to stimulate key infrastructure projects is estimated to range between $2 to $3 million annually. An example of a potential project is the provision of financial assistance to undertake the feasibility, environmental and other studies required for the port/road project in Bathurst Inlet proposed by the Kitikmeot Corporation and Nuna Logistics. The proposed project involves the establishment of a joint venture to build a port on the west shoreline of Bathurst Inlet and two road sections which would be constructed to connect the port to nearby mineral deposits including the Izok Lake lead zinc deposit. One road section would consist of a 200 kilometre section of gravel road from the port to the east shore of Contwoyto Lake and an 80 kilometre section of gravel road from Izok Lake to Lupin. These two sections of road would be joined by an ice road over Contwoyto Lake in the winter months and a barge in the summer months. The facilities to be owned and operated by the joint venture include a single berth dock for deep draft vessels, mobile support equipment, a camp, shops, storage buildings and associated utilities. The facilities to be owned and installed by others include concentrate, fuel and ammonium nitrate storage and handling facilities. According to a preliminary study undertaken by Nuna Logistics, the cost to construct the project is estimated to be $25 to $30 million for the port and $60 to $70 million for the roads.

The capital costs of the proposed Bathurst Inlet port/road project are too large to be financed by the Joint Aboriginal - Industry Resource Development Program. For a project of this magnitude, separate project financing will most likely have be raised. However, what is required from the Joint Aboriginal - Industry Resource Development Program is financial assistance to undertake the feasibility, environmental, technical and other studies required before the costs and viability of the project can be accurately determined. In other words, assistance is required to develop the project into a full-fledged business plan that can be considered by banks, government, mining companies and other organizations that could potentially provide financing for the project. The total costs of the feasibility, environmental and other technical studies required for the Bathurst Inlet port project are estimated to range between $3 to $4 million. Additional assistance may be required to assess the feasibility and develop business plans for spin-off projects from the main project such as fuel handling and storage facilities.

Some examples of other infrastructure projects that could potentially benefit from program assistance are as follows:

- Feasibility, technical and other studies required to assess the cost and viability of a port required for the construction and operation of the proposed open pit gold mine at the Meadowbank project which is 80 kilometres north of Baker Lake.

- Feasibility, technical and other studies required to assess the cost and viability of a road required for the construction and operation of the proposed Meliadine West gold mine approximately 15 kilometres north of Rankin Inlet.

In addition to providing assistance for feasibility and technical studies, the Joint Aboriginal - Industry Resource Development Program would also provide non-repayable contributions for the undertaking of small key infrastructure projects. An example of a potential project is the provision of a non-repayable contribution for a portion of the financing required for the Rae-Edzo aerodrome to enable Dogrib communities to better supply services and workers to the diamond and other mines in the North Slave area. The business plan prepared for this project indicates that the largest single business and employment opportunity for the Dogrib people over the next twenty five years is providing support services for exploration, testing, extraction and processing activities associated with current and future mines. Development of these opportunities require air transportation and Rae-Edzo can maximize these benefits by having an aerodrome.

d. Benefits Achieved

Over the next ten years, the benefits to be achieved are the facilitation of 5 incremental infrastructure projects that are key to the further development of mineral/oil/gas resources. These infrastructure projects will have substantial impacts including the creation of the equivalent of approximately 700 full-time jobs. As an illustration of the benefits to be achieved, the economic impacts of the Bathurst Inlet port/road project alone are enormous. The Kitikmeot Corporation recently developed an economic impact assessment model and conducted a study utilizing this model to determine the economic impact of the proposed port/road project. This study assumed that the Bathurst Inlet port would be connected via a transportation infrastructure of roads and lakes to three separate mining projects (the Lupin project; the Izok project; and the George/Goose project) that would be undertaken as a result of the port/road project. The study indicated that the combined benefits from the construction of the road/port complex and the development of operating mines at the Lupin, Izok and George/Goose mineral properties during the period from 1998 (initial construction) to 2020 are as follows:

- Increase of $3.35 billion in mineral production during the period from 1998 to 2020.
- Incremental capital investment of $573.5 million to develop port/road infrastructure and new mines.
- Increase in gross domestic product (GDP) of $1.54 billion.
- Increase in employment by a total of 10,598 person years during the period from 1998 to 2020 which is equivalent to the creation of about 460 person years of employment each year. Of this total, aboriginal employment is projected to be 37% or an increase of 3,971 person years.

The benefits to be achieved from providing funding for small key infrastructure projects such as the Rae-Edzo aerodrome are also substantial. According to a socio-economic study of the aerodrome project, the benefits to be achieved from the establishment of the aerodrome and the associated industrial operations that would also be established are as follows:

- Creation of 602 person years of employment over the next ten years.
- Approximately $24 million in direct incremental income for Rae-Edzo residents.
- An overall reduction in government social assistance costs of $6.75 million.

The study indicated that the cost per job, based on a high capital cost scenario, is $8,000 (net of recoveries)

which is significantly less than other government economic development programs which experience costs of up to $100,000 per job. The study also indicated that the return on government investment under the low capital cost scenario ($2.5 million capital costs plus $1 million operations and maintenance costs) could be as high as 69 to 1 (i.e. for every dollar of total laid in cost net of tax recoveries, the government could stand to generate benefits in the order of $69). The high capital cost scenario (total laid in-cost of $7.5 million) yields a smaller, but nonetheless important return of 7.2 to 1.

3. Accelerate Geoscience Activities

a. Rationale

Geological mapping is the single most cost-effective incentive that government can provide to encourage mineral industry activity. Geological mapping is not only an incentive for mineral exploration, it is an important part of any land-use planning process.

With the recent cuts to the Geological Survey of Canada (GSC), including closure of the Yellowknife office, and the completion of the last Canada - NWT Economic Development Agreement (EDA), the amount of geological mapping and research in the NWT and Nunavut has been severely reduced. At the present time, the geoscience activities undertaken by government consist primarily of a small mapping program for the NWT and Nunavut that is maintained by the Geology Division of DIAND. In addition, the territorial governments of NWT and Nunavut each have a very limited geoscience program that are considerably smaller than DIAND's mapping program. These geological mapping activities are inadequate to address the low level of geological knowledge of the NWT and Nunavut.

Evaluations of previous Canada-NWT federal-territorial mineral development agreements (MDAs) have demonstrated that the even with EDA funding, the amount of geoscience work undertaken in the NWT is far below that in comparable jurisdictions. The evaluation of the 1987 - 1991 Canada-NWT MDA which provided $5.9 million in funding for geoscience programs stated that the level of funding for geoscience activities is low given the substantial land area of the Northwest Territories. Although the NWT contains approximately one third of the land mass of Canada, the budget established for the 1987 - 1991 Canada-NWT MDA geoscience program represented only 5% of the budget established for all MDA geoscience programs across Canada. This evaluation also indicated that the Northwest Territories ranks behind other jurisdictions such as the Yukon, Manitoba, and three of the four Atlantic provinces when the budget allocated under the MDA for geoscience activities is compared to the value of exploration activity.

The evaluation of the 1991 - 1996 Canada-NWT MDA indicated that only 40% of the NWT was covered by geological mapping at the scale of 1:250,000 (commonly used by industry to set broad exploration targets) and less than 1% is mapped at 1:50,000 (commonly used by industry to investigate particular locations within the broad target areas). As a comparison, in 1990, the provinces had on average 80% coverage at 1:250,000 and 35% coverage at 1:50,000. It is apparent, therefore, that even with MDA funding, government expenditures on geoscience in the NWT have been less than that undertaken in other jurisdictions in Canada.

Mining today is a highly competitive global industry, and companies locate major investments where the probability of success is greatest. Two key factors in these decisions are an area's mineral potential and the quality of the geoscience knowledge base. Given the high mineral potential of the NWT and Nunavut, increased government funding is critical to accelerate the development of the geological base and to stimulate mineral exploration.

b. Eligibility Criteria

Under the Joint Aboriginal - Industry Resource Development Program., the geoscience activities undertaken would be similar but more focused than that undertaken in previous federal-territorial mineral development agreements. The geoscience activities that would be eligible for assistance and given highest priority include the following:

- Projects that involve the mapping of areas of high mineral potential.
- Projects that focus on developing a more integrated geoscience data base and more digital topographic data.
- Projects that assess the mineral potential of areas that are being considered for inclusion in the Protected Areas Strategy.

The organizations that would be eligible for assistance from the program are the two partnerships of federal and territorial government departments that are currently involved in undertaking geoscience programs in the NWT and Nunavut. The geoscience programs undertaken in the NWT are currently undertaken by a partnership consisting of the NWT Geology Division of DIAND, Geological Survey of Canada and the GNWT Department of Resources, Wildlife and Economic Development. These partners have signed a Tri-Lateral Geoscience Accord which establishes a general framework for co-operation and collaboration in the geosciences between the federal and territorial government. The accord provides a context in which the three parties can co-ordinate and maximize their geoscience operations. The C.S. Lord Northern Geoscience Centre is currently being developed in Yellowknife to provide a single facility for the collection and dissemination of geoscience and geological data in the Northwest Territories.

In Nunavut, a partnership similar in concept to that operating in the NWT is currently being formed to undertake geoscience programs. This partnership consists of the following three organizations: Government of Nunavut Department of Sustainable Development, GSC and DIAND.

c. Funding Guidelines

One of the key priorities of the Joint Aboriginal - Industry Resource Development Program is to restore the funding for geoscience programs to about the level achieved with the previous federal-territorial economic development agreements. The additional funding required, taking into account the existing budgets for geoscience programs of the federal and territorial governments of the NWT and Nunavut, is estimated to be approximately $1.5 million per year.

The amount of funding available is 100% of the total costs of the geoscience projects. Applications for assistance would have to be submitted for each proposed geoscience project.

d. Benefits Achieved

Over the next ten years, the benefits to be achieved from the undertaking of additional geoscience activities are estimated to be incremental mineral exploration expenditures of $25 million as a result of undertaking additional mapping of areas with high mineral potential. As a validation of the benefits to be achieved, the geoscience programs of the previous mineral development agreements and initiatives were the most beneficial programs of the EDAs that have been undertaken in the NWT. The evaluation of the Geoscience Initiative ($7.8 million) of the last Canada - NWT Economic Development Agreement's Mineral Initiatives indicated the following benefits:

- The Geoscience Initiative has been highly successful with all projects contributing in varying degrees to improving the existing geological data base.

- The Geoscience Initiative has generated over $13.5 million in incremental exploration expenditures which is considerably greater than the cost of the initiative.

- The Geoscience Initiative has changed industry perceptions about the economic potential of the Indin Lake and Victoria Island areas and its understanding of the gold mineralization in iron formation in the Keewatin area.

4. Assist Industry Labour Transportation

a. Rationale

Recent mining developments in the Slave Geological Province - particularly the development of diamond mines - have given a new hope for employment opportunities for unemployed people in remote communities near these mines. Leaders in these communities have realized that community economic growth cannot, and likely will not, keep pace with the ever increasing population. If no employment alternatives are found, they will be faced with a critical unemployment problem, along with the high human and financial costs of sustaining unemployed people in remote communities on social assistance and other forms of public support.

Although recent diamond mining developments have created the opportunities for new employment, the critical issue - aside from training and job readiness/skill development - is job access. With the current operating policies of the mining industry in the area, which allow for transportation to and from mining and exploration sites from fixed pick-up points, unemployed people who want and need jobs cannot afford to get to these pick-up points and miss an important chance for full time rotational employment in the mining industry. It is recognized that not all unemployed people in the remote communities want to work in the mining industry, but there are indeed many who do. It is these people that require the financial support to mobilize them into productive and meaningful employment opportunities.

The Kitikmeot Regional Economic Development Commission recently commissioned a study to assess the impact of a 100% transportation subsidy for people unemployed in remote communities outside the standard mining rotational employment pick-up points (e.g. Cambridge Bay, Kugluktuk and Yellowknife) for mining activities in the Slave Geological Province. For the Kitikmeot region, the study examined the impacts of transportation assistance on the following communities: Gjoa Haven, Holman, Pelly Bay and Talyoak. For the Sahtu region, the communities of Colville Lake, Deline, Fort Good Hope and Fort Norman were used as the basis for the analysis. The study examined the impact of providing a 100% transportation subsidy for 50 workers from these communities for a ten year period. The key findings of the study are as follows:

- Earned income by northerners would increase by $36.4 million for the ten year period.

- The cost of a 100% transportation subsidy would amount to $10.3 million. However, the offsetting reduction in social assistance that would otherwise have to be paid to the 50 unemployed people is $11.2 million. As a result, the cost of the transportation subsidy is less than the cost of maintaining the people on social assistance.

- The total personal income taxes paid to government by the 50 employed people are estimated be approximately $5.2 million.

The study indicates that for a total expenditure of $10.3 million over a ten year period - or an average

transportation subsidy cost of $1 million annually - government agencies responsible for employment and income stabilization could realize a net gain on diverting a portion of social assistance funds towards subsidizing transportation costs for unemployed people in remote communities. Without an intervention of this sort, social assistance is the only method of providing the basic living needs of many residents of remote communities. This social assistance cost burden will only increase as the population continues to grow.

Even though there exists a sound rationale for diverting social assistance payments to subsidize transportation costs, a major constraint is rigid government social assistance policies that do not have sufficient flexibility to allow for innovative measures such as transportation subsidies. While the concept of a transportation subsidy has merit based on the analysis undertaken, a project to demonstrate the benefits of the subsidy is likely required to make a convincing case to approach government social assistance agencies. Consequently, one of the priorities of the Joint Aboriginal - Industry Resource Development Program is to undertake a project to demonstrate the viability of an industry labour transportation subsidy program. The project would be based on the concept proposed in the study undertaken by the Kitikmeot Regional Economic Development Commission.

Support for changing current social assistance programs is provided by the Royal Commission on Aboriginal Peoples. The Final Report of the Royal Commission on Aboriginal Peoples states that conventional Canadian approaches to social assistance have failed aboriginal people. While welfare is putting more cash resources into communities, the system is doing little to change the economic and social conditions that contribute to high and rising rates of dependency. A bridge must be erected to connect employable individuals with opportunities that meet the economic and social needs of their communities. The Commission believes that such a bridge can be built. What is required is far-reaching and substantial reform of social assistance to permit communities to work toward reversing the trends to ever greater levels of dependency. Reform must be innovative, allowing communities and nations to control their fate through the use of social assistance dollars for economic and social development. One of the recommendations of the Commission is that "social assistance funds be directed toward a more dynamic system of programming that supports employment and social development in Aboriginal communities". In another section of the report, the Commission provides the following recommendations:

- Federal and territorial governments establish a task force with strong Aboriginal representation to review all social assistance and income supplement programs across the territorial North with the goal of restructuring these programs to make them effective instruments in promoting a mixed economy and sustain viable, largely self-reliant communities.

- Based on the work of the task force and recognizing the fundamental changes under way in the structure and administration of social assistance programs across Canada, territorial governments take the initiative, in consultation with federal and provincial governments, to create a northern social policy framework with sufficient flexibility to allow existing levels of social assistance spending to be used to fund community work creation and provide income supplements related to community employment or traditional production and harvesting.

- Employment insurance and social assistance legislation be amended to take into account the specific differences in employment patterns, the high cost of living, the administrative delays that result from great distances between communities and other factors unique to the northern economy.

b. Eligibility Criteria

Individuals eligible for assistance are unemployed people located in remote communities outside the standard rotational employment pick-up points for mining, oil and gas activities. To maximize program effectiveness, a minimum number of approved applicants from a community may be established to keep transportation costs reasonable.

c. Funding Guidelines

Program funding would consist of up to a 100% transportation subsidy for one year for workers from remote communities in the NWT and Nunavut. Attempts would be made to establish partnerships with local communities and the mining/oil/gas industry to provide matching funds for the project to reduce the amount of program funding required. In addition, experiments would be undertaken as part of the project to determine what proportion of the transportation costs could be paid by the workers themselves.

d. Benefits Achieved

Over the next ten years, the goal of the this aspect of the program is to provide employment in the mining/oil/gas industry for 50 unemployed northerners located in isolated and non-pickup point communities where transportation costs to areas of employment are prohibitive. As demonstrated in the study funded by the Kitikmeot Regional Economic Development Commission, the cost of the transportation subsidy is less than the cost of maintaining the people on social assistance. The other benefits achieved include a substantial increase in earned income of northerners due to the high wages paid by the mining/oil/gas industry and a significant increase in personal income taxes paid to government by the additional northerners employed as a result of the program.

5. Provide Leadership In Developing Education and Training Initiatives

a. Rationale

Overall, there is a significant amount of funding already provided for education and training initiatives particularly for aboriginal people. As an illustration, under HRDC's aboriginal bilateral program, approximately $13.5 million is provided annually to 11 different aboriginal organizations in the NWT and Nunavut for education and training initiatives. In addition, the Canada-NWT Labour Market Development Agreement, administered by GNWT Education, Culture and Employment, provides funding for a wide variety of employment benefits and support measures so that unemployed people can get back to work.

While overall there appears to exist ample funds for education and training initiatives, there exists a lack of leadership and coordination to ensure that the education and training initiatives undertaken are focused properly on the needs of the mining/oil/gas industry. As an illustration, leadership and coordination is required to ensure that the substantial funds provided by HRDC to aboriginal organizations are focused on meaningful labour market training initiatives for the mining/oil/gas sectors. Too often training is undertaken without an idea of what specific job is available for the person upon completion of the training. This typically results in frustration because the expectations of obtaining employment that were created during the training program are not realized. Greater emphasis needs to be placed on training people for specific jobs that are available upon completion of the training program.

b. Eligibility Criteria

While the intent is not to fund actual training programs, some funding is required to investigate the feasibility of new training initiatives. Consequently, the purpose of this program component is to undertake research

and development of possible new education and training initiatives. Eligible organizations include partnerships between local colleges, industry, aboriginal organizations, federal government, and territorial governments to undertake new labour market education and training initiatives.

c. Funding Guidelines

Program funding of up to 80% of the total project costs would be available. .

An example of a potential project is to provide financing and support to the work of committees such as the Mine Training Committee. The Mine Training Committee is a consortium of industry representatives and aboriginal leaders that was established to provide advice to the Honourable Charles Dent on initiatives to enhance the employability of northerners in the mining sector. The Committee has been active in designing training programs, promoting employment opportunities, attending career shows and linking training partners to ensure that the training is relevant and timely. The impact of this committee could be increased though the provision of staff support and financial assistance from the Joint Aboriginal - Industry Resource Development Program.

Another potential project is to facilitate the adoption of program similar to the Multi-Party Training Plan (MPTP) which has been very successful in Saskatchewan. MPTP is a cooperative, training-to-employment initiative that was initiated in 1993 by the province of Saskatchewan, federal government, First Nations and Metis authorities, and the northern mining industry. The overall objective of MPTP is to increase the participation of northern Saskatchewan residents in mineral sector employment. To accomplish this objective, the strategy employed by MPTP consists of the following:

1. Focus on apprenticeship, technical and professional occupations.

2. Implement pre-employment preparation, skill development training, on-the-job training, and re-training to improve access to employment opportunities and to facilitate employment advancement for northerners.

3. Agreement by industry will work with its contractors to facilitate the training and employment of northerners.

The five phases of the MPTP program are as follows:

Phase I:	Assessment (2 weeks)
Phase II:	Pre-employment preparatory (10 weeks)
Phase III:	Skills training (12 weeks to 2 years)
Phase IV:	Job training (on-going)
Phase V:	Employment

The total funding provided to MPTP over its first four years has been about $9.2 million which has been sourced as follows: Saskatchewan government (30%), federal government (28%), and mining companies (42%). The average cost per MPTP student is approximately $13,000. The evaluation of the MPTP concluded that the partnership and representation of stakeholders is one of the critical success factors of the MPTP. The evaluation also recommended that governments should consider expanding the MPTP concept in other industries and jurisdictions as a cost effective strategy for linking education and training

programs to the workplace and the private sector.

d. Benefits Achieved

The goal of this program component is that the development of at least one new education and training initiative geared to the mining/oil/gas industry will result in 50 more northerners hired to work in the mineral/oil/gas industry. This goal is conservative compared to the achievements of the MPTP which successfully trained and placed 556 northerners in jobs between 1993 and 1997. Of the MPTP students that were tracked to employment, 78% were employed in the mineral sector, 16% were employed by First Nations Bands and the balance were otherwise employed. The independent evaluation of the MPTP indicated that the payback period to government is less than one year.

D. PROGRAM BUDGET

To accomplish the priorities of the Joint Aboriginal - Industry Resource Development Program, annual funding of at least $6 million is required for a minimum period of ten years. At the beginning of each fiscal year, the key program priorities would be determined and the annual budget would be allocated to these key program priorities. Therefore, rather than allocate funds for each program element, the proposed program structure would allow flexibility in allocating the overall program budget to the key priorities of the Joint Aboriginal - Industry Resource Development Program.

Table 3 provides an initial guideline of the amount of program funding that would be devoted to addressing each of the key program priorities in the initial years of operation of the program. As indicated in Table 3, about 87% of the total program funding has been allocated to three program priorities: increasing aboriginal corporate capacity; facilitating infrastructure projects; and accelerating geoscience activities..

TABLE 3

JOINT ABORIGINAL - INDUSTRY RESOURCE DEVELOPMENT PROGRAM ANNUAL BUDGET

Program Priority/Activity	Funding Required ($ millions)	% of Total
Increase aboriginal corporate capacity	$1.0	17%
Facilitate infrastructure projects	$2.7	45%
Accelerate geoscience activities	$1.5	25%
Assist industry labour transportation	$0.5	8%
Provide leadership in developing training and education initiatives	$0.2	3%
Program evaluation	$0.1	2%
Total	**$6.0**	**100%**

A minimum program life of ten years is required to undertake and complete sufficient projects to make an impact and create additional employment for northerners in the mining/oil/gas sector. As an illustration, it could take several years to undertake the necessary studies for some of the infrastructure projects such as the Bathurst Inlet port/road project. The program needs to be sufficiently long to be able to provide

assistance throughout the entire planning stage of these infrastructure projects or they will be halted midstream with no other source of funding to complete the planning studies.

Similarly, the process of building aboriginal corporate capacity will take several years. In most instances, this will be an iterative process that first involves providing assistance for opportunity identification and assessment studies. Once the opportunities have been identified, the next step is to undertake feasibility studies of specific opportunities. For those opportunities that appear feasible, the next step is to prepare business plans. As part of this step, it may be necessary to identify and negotiate with joint venture partners. The next step is to implement the business plans which may involve more detailed negotiations with joint venture partners and the establishment of business enterprises. Once a business has been established, on-going assistance is likely required to ensure that management adheres to the business plan and resolves any operational issues. Consequently, several years are likely to be required to assist aboriginal development organizations in undertaking these various steps.

Support for long term economic development agreements is also provided by the Royal Commission on Aboriginal Peoples. The Final Report of the Royal Commission on Aboriginal Peoples recommends that "federal, provincial and territorial governments enter into long-term economic development agreements with Aboriginal nations, or institutions representing several nations, to provide multi-year funding to support economic development".

Past experience in undertaking geoscience programs as part of five year federal-territorial agreements has demonstrated that considerable time and effort was wasted in initiating and terminating the geoscience activities undertaken. In addition, there have been long gaps between the termination of one mineral development agreement and the start of another agreement with the result that valuable time has been lost that could have been devoted to increasing our knowledge of the mineral potential of the territories. Consequently, undertaking geoscience programs on a continuous basis for at least a 10 year period will result in considerable efficiencies and increase the rate of coverage of geological mapping of the NWT and Nunavut.

E. GEOGRAPHIC BOUNDARIES

Rather than developing a separate program for the NWT and Nunavut, there exist considerable advantages to having one program for both territories. These advantages include the following:

1. There was clear acceptance by all groups at the Joint Industry - Aboriginal Resource Development Forum held on June 9 - 10, 1998 that successful northern economic development would depend on the willingness of resource developers, Aboriginal development corporations and government agencies to work as a single force in charting and advancing resource development activities in all regions - whether in the new Nunavut Territory or in the remaining parts of the Northwest Territories.

   The past practices of a fragmented and disparate development plan and policy base can not be expected to provide the foundation needed to change the way business is done throughout the north.

2. Several of the proposed projects involve and impact both territories. As an illustration, the proposed Bathurst Inlet port/road infrastructure project is located primarily in Nunavut but some of the mines that would benefit from this project are located in the NWT. In addition, this project would create considerable employment for residents of both NWT and Nunavut. Similarly, the proposed industry labour transportation project would involve transporting workers from remote communities in both territories to mining/oil/gas operations.

3. The quality of the program delivery would be diluted by establishing separate delivery mechanisms in each territory. Substantial staff expertise in the mining/oil/gas industry and the development of aboriginal economic development organizations are required to successfully deliver the program. A more specialized level of expertise can be developed if it is concentrated in one delivery organization rather than try to develop two separate delivery organizations.

4. The development of one program for both territories will result in considerable economies of scale and efficiencies as compared to the operation of two programs each with separate delivery mechanisms.

F. PROGRAM BENEFITS

The following paragraphs provide an estimate of the likely benefits to be achieved over a ten year period by the Joint Aboriginal-Industry Resource Development Program:

1. Creation and successful operation of 10 businesses by aboriginal organizations that are related to the mining/oil/gas industry.

2. Facilitation of 5 incremental infrastructure projects that are key to the further development of mineral/oil/gas resources.

3. Incremental mineral exploration of $25 million as a result of undertaking additional mapping of areas with high mineral potential.

4. Increase in employment in the mining/oil/gas industry by 50 northerners located in isolated and non-pickup point communities where transportation costs to areas of employment are prohibitive.

5. The development of at least one new education and training initiative geared to the mining/oil/gas industry.

In total, the program is projected to act as a catalyst for the creation of an equivalent of 925 full time jobs for northerners through greater participation in and development of the mining/oil/gas industry in the NWT and Nunavut. In addition, the program will leverage approximately $1 million in funding that would be provided by the program applicants as their equity contribution for the projects undertaken. As indicated in Table 4, the key source of job creation are projected to result from the stimulation of infrastructure projects. The following paragraphs describe the key assumptions that have been used to develop projections of the employment to be created by the Joint Aboriginal-Industry Resource Development Program:

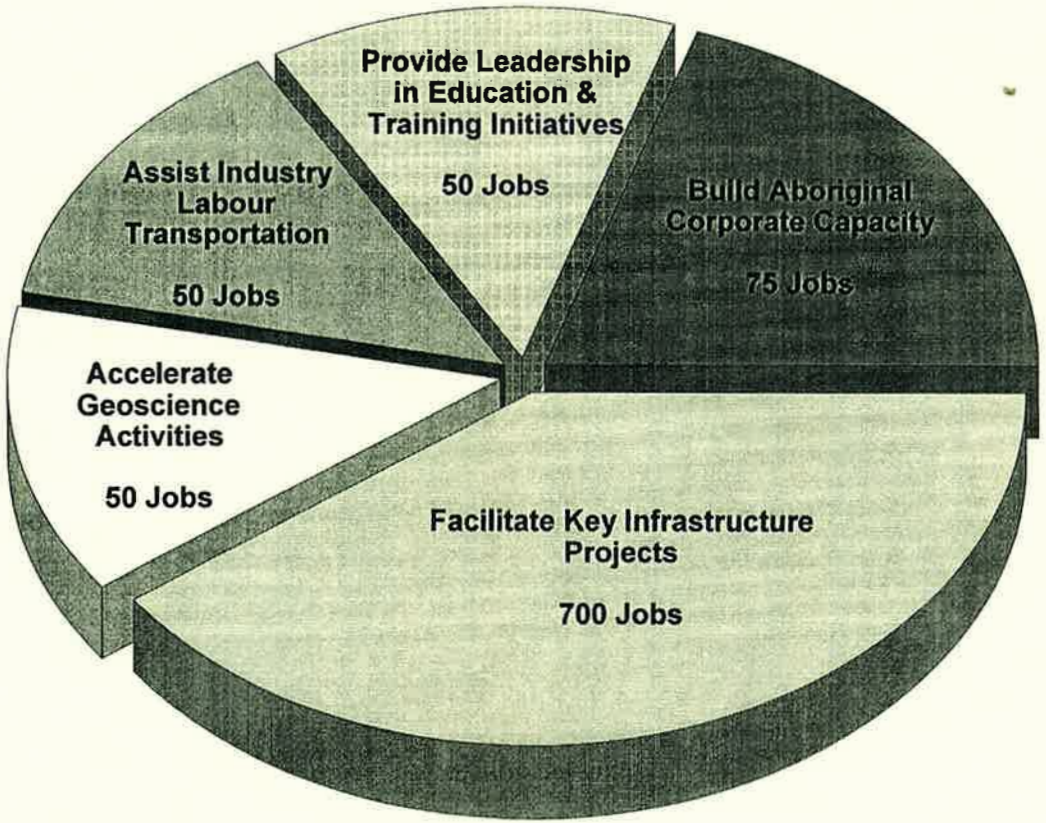
1. The report entitled *The Need for Aboriginal Corporate Capacity - Getting The Benefits From Resource Development Opportunities* indicated that over a ten year time frame, a 15% increase in aboriginal participation in a new mine development - both in terms of corporate and labour market participation - would result in the creation of 375 person years of employment over ten years which is an equivalent of 37.5 full-time jobs. By assuming that at least two new mines would be developed in this period, an equivalent of 75 full time jobs are projected to be created by increasing aboriginal corporate capacity.

2. Of the five infrastructure projects that would be facilitated by the program, it is assumed that one would be the size of the Bathurst inlet road/port project while the other four projects would be similar to the Edzo aerodrome project. According to the economic impact

TABLE 4

JOINT ABORIGINAL-INDUSTRY RESOURCE DEVELOPMENT AGREEMENT

ESTIMATED NUMBER OF JOBS TO BE CREATED



Total = 925 Jobs over Next 10 Years

assessment model developed by the Kitikmeot Corporation, the Bathurst inlet port/road project is projected to Increase employment by a total of 10,598 person years during the period from 1998 to 2020 which is equivalent to the creation of about 460 person years of employment each year. The Edzo aerodrome project and the related industrial operations that would be stimulated by the aerodrome are projected to create an equivalent of about 60 full-time jobs. In total, the program is projected to stimulate the undertaking of five incremental infrastructure projects which are projected to create an equivalent of approximately 700 full-time jobs.

3. By stimulating an additional $25 million in mineral exploration, the geoscience activities of the program are projected to create an additional 50 full time jobs over the next ten years.

4. Providing a transportation subsidy to workers located in remote communities is projected to create employment for 50 northerners.

5. The development of at least one new education and training initiatives geared to the mining/oil/gas industry will result in 50 more northerners hired to work in the mineral/oil/gas industry.

G. PROGRAM EVALUATION

An annual evaluation of the program impacts and effects would be undertaken to ensure that the program is achieving its objectives and to provide an on-going independent assessment of actions required to enhance the impact of the program. In addition, a major review of the program would be undertaken at the end of five years to determine the extent to which the program objectives have been accomplished and the need to continue the program. The specific performance measures that would be employed to assess the extent to which the program has met its objectives include the following:

1. Creation and successful operation of businesses by aboriginal organizations that are related to the mining/oil/gas industry.

2. Facilitation of infrastructure projects that are key to the further development of mineral/oil/gas resources.

3. Incremental mineral exploration as a result of undertaking additional mapping of areas with high mineral potential.

4. Increase in employment in the mining/oil/gas industry by northerners in isolated and non-pickup point communities where transportation costs to areas of employment are prohibitive.

5. Increased leadership and coordination in the development of new education and training initiatives geared to the mining/oil/gas industry.

6. Additional employment and business development opportunities for northerners through greater participation in and development of the mining/oil/gas industry in the NWT and Nunavut.

II. PROGRAM DELIVERY STRUCTURE

This chapter describes the organization structure, staff requirements and budget required to deliver the Joint Aboriginal-Industry Resource Development Program.

A. PROGRAM DELIVERY MECHANISM

Past experience with joint federal-territorial government economic development agreements in the north has demonstrated that delivery of such programs by government has not been effective. As a result, the Joint Industry - Aboriginal Resource Development Program would be administered by an independent and integrated program delivery agency under the direction of key stakeholders which include Aboriginal development corporations, resource development companies or representative associations (e.g. NWT Chamber of Mines) and funding agencies such as the federal and territorial governments. The following paragraphs describe the rationale for the use of an independent and integrated program delivery agency compared to the traditional methods of delivering federal-territorial economic development programs:

1. The historical approach of only involving government departments and agencies in the planning and decision-making processes of formulating public policy has resulted in programs and delivery systems that are government-driven.

   A more beneficial approach would be for industry and Aboriginal groups along with government agencies to chart the future priorities for development support. External partnerships with resource developers, aboriginal groups and northerners would add value to the governments' business in the North.

2. Rather than the delivery of program components by different government departments as has been done in the past, there exists a need for a more integrated approach to the delivery of federal and territorial support programs.

   The North does not enjoy the benefits of a Western Economic Diversification Office like the western provinces or an Atlantic Canada Opportunities Agency in the east. The North has been left out and it is time that a single development agency with a focus on resource development - the wealth generator - be initiated if any future economic strategy is to be successful.

3. What is required is a set of strategically targeted policy instruments that recognize the importance of wealth generating sectors such as the mining/oil/gas sectors and the role that they can play in advancing Aboriginal economic development throughout the North.

   To accomplish this, there is a need to integrate the efforts of all parties so that each has a hand in the approval/direction of funding towards resource and Aboriginal development needs. In the past, Aboriginal groups and industry have had a relatively passive role - other than periodic consultations with policy makers and program delivery agents. Bringing together industry and Aboriginal groups into the process of determining strategic development priorities will draw considerable knowledge to the table when deciding what should and should not be supported from a public policy standpoint.

4. Changes in the way government carries out its business will be required to make the North more self-sufficient.

Simply changing the policies and introducing new programs will only go part way in reaching the objectives of targeting resources on wealth generators and increasing Northern corporate capacity. What is required to complete the tool kit is a new delivery agency - one which embraces the notion that industry, Aboriginal groups and government can work together independently from the regular affairs of government.

5. There exists a need for a separate independent program delivery structure to focus specifically on stimulating growth in mining, oil and gas activity and aboriginal capacity development.

   An independent program and service delivery structure involving industry, aboriginal corporations, northern people and government is needed to ensure federal and territorial funds are directed at opportunities that produce long term, tangible results in northern communities. Northern aboriginal development corporations and the resource industry know what their respective development needs are and can work together in directing resources towards economic capacity builders.

B. ORGANIZATION STRUCTURE

A number of alternative organizational structures are possible for an independent delivery mechanism of the Joint Aboriginal - Industry Resource Development Program including the establishment of a non-share capital corporation (society) or a crown corporation. Of these two alternatives, a non-share capital corporation is preferred because it can be established more quickly and with less effort than a crown corporation. All three governments participating in a crown corporation (i.e. Government of Canada, GNWT and Government of Nunavut) would have to pass legislation to provide a mandate for their ownership of shares in a new crown corporation. On the other hand, a non-share capital corporation would not require such legislation and could instead be established much more quickly.

A non-share capital corporation is ideal for a public interest group of stakeholders operating on a not-for-profit basis. Incorporation under this legislation does not mean that the organization cannot carry out established activities which generate profits. Rather, it means than the organization will be established for identified purposes and any profits generated will be utilized in pursuit of those purposes and not for the personal gain of its "shareholders".

A non-share capital corporation is particularly desirable where the organization will be entering into contracts or incurring debt, and there is a desire to limit the exposure to liability of the members from the actions of the entity. Unless specifically excluded by statutory provision, directors and officers of non-profit organizations are generally subject to the same liabilities imposed on the management of commercial corporations.

A non-share capital corporation is similar in legal status to a share capital corporation. It is governed by a board of directors, has limited liability flowing to the "shareholders" and has internal by-laws. The directors represent the shareholders who are the stakeholders. There may be several different types or "classes" of stakeholders of the organization. Typically, directors are either appointed or elected by these classes of stakeholders.

It is recommended that a non-share capital corporation be established to deliver the Joint Aboriginal - Industry Resource Development Program. In Canada, a non-share capital corporation may be incorporated under federal, provincial and territorial statutory legislation. Because the proposed organization would operate in two territories, it would be incorporated under federal rather than territorial legislation.

Table 5 indicates the overall organization structure for the delivery agency of the Joint Aboriginal - Industry Resource Development Program. As indicated, there would be a total of 9 members comprising the Board of Directors of the non-share capital corporation. Three members of the Board of Directors would be appointed from each of the following three classes of stakeholders.

- Government (i.e. Government of Canada, GNWT and Nunavut subject to each territorial government providing a portion of the funding for the program)
- Mining/oil/gas industry
- Aboriginal development corporations

For the three members of the board of directors that represent government, a representative of each of the three governments that provide funding for the program ((i.e. DIAND, GNWT RWED and Nunavut Department of Sustainable Development) would be appointed as a board member subject to each territorial government providing a portion of the funding for the program. The most appropriate appointments for these board positions would be senior government representatives (preferably at the Deputy Minister level for territorial governments) responsible for developing economic development policies and programs for their respective governments.

For the three board members that represent the mining/oil/gas industry, two board members would be appointed by the NWT Chamber of Mines. The board member representing the oil and gas sector would be appointed by the Canadian Association of Petroleum Producers. The rationale for having two board members from the mining industry and one board member from the oil and gas industry is that the revenues generated by the mining industry (i.e. including mineral exploration and mineral production) are approximately twice the revenues generated by the oil and gas industry in the NWT and Nunavut.

The three board directors that represent aboriginal development corporations would consist of two representatives of aboriginal development corporations in the NWT and one representative from an aboriginal development corporation based in Nunavut. The rationale for having two board members from the NWT and one board member from Nunavut is that allocation reflects the population of the two territories. DIAND would be responsible for appointing all three board members that represent the aboriginal development corporations.

All board members would be appointed for a minimum period of four years. After four years, the appointments of five of the board members would be reviewed while the appointments of the other four board members would not be reviewed for another two years to ensure continuity of the board of directors.

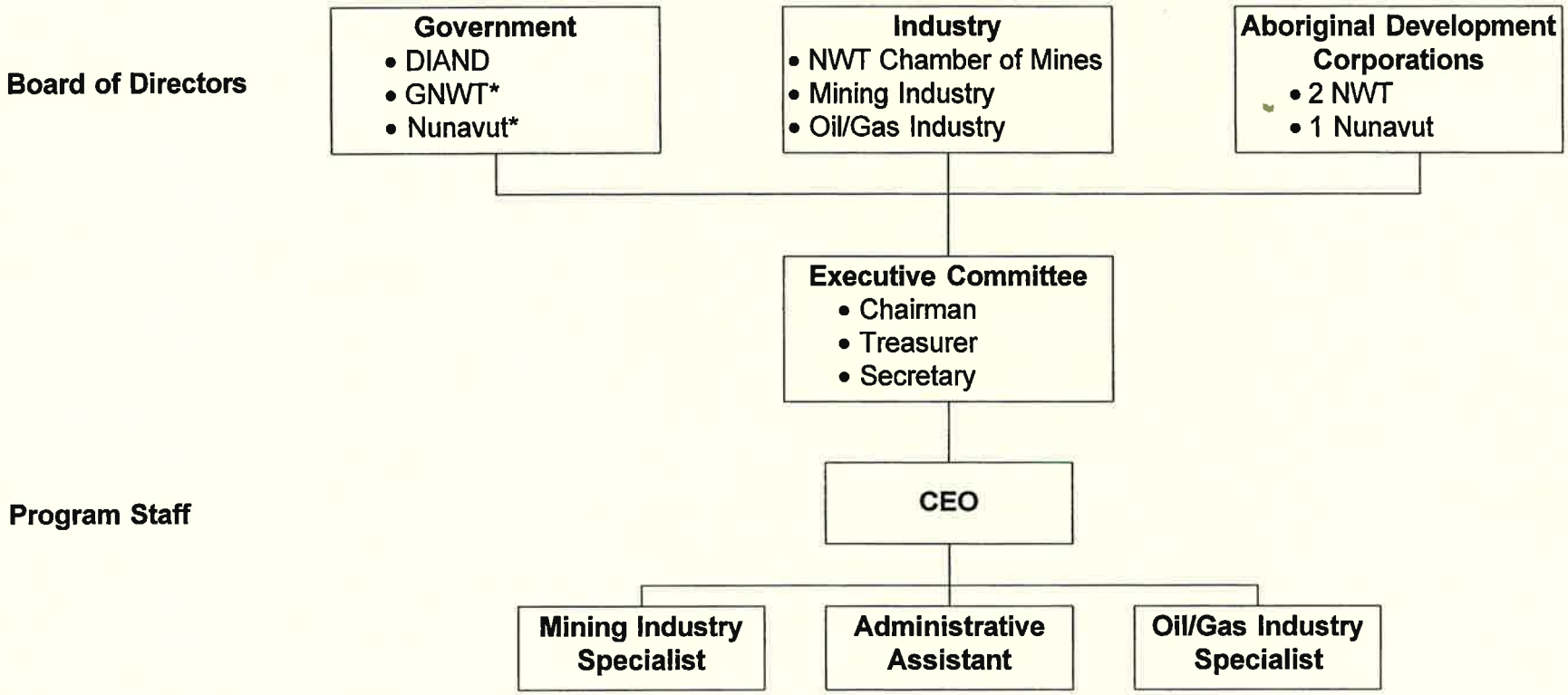
The board of directors of the non-share capital corporation would be responsible for setting the policy and hiring the Chief Executive Officer (CEO) of the delivery agency of the Joint Aboriginal - Industry Resource Development Program. All decisions made by the board of directors would be based on vote of the board members with a simple majority required for a vote to be passed. In the event of a tie vote, the Chairman would cast the deciding vote. The board of directors would meet every three to six months.

An Executive Committee of the board of directors would be established to handle the day to day requirements of the corporation such as the payment of on-going operating expenses of the organization. The Executive Committee would be consist of three members: Chairman, Treasurer and Secretary. The members of the Executive Committee would be elected by the board of directors for a minimum term of three years.

TABLE 5

DELIVERY AGENCY FOR JOINT ABORIGINAL-INDUSTRY RESOURCE DEVELOPMENT PROGRAM

ORGANIZATIONAL STRUCTURE



*** Subject to territorial government(s) providing a portion of the program funding.**

C. PROGRAM STAFF REQUIREMENTS

As indicated in Table 5, four full time program staff are projected to be required to deliver the program. The CEO of the delivery organization would have extensive experience in dealing with aboriginal development corporations, be familiar with the oil/gas industry and be knowledgeable of the economic development programs of the territorial and federal government. One of the key functions of the CEO is to obtain direction from the Board of Director to manage the implementation of the Joint Aboriginal - Industry Resource Development Program. Another key function of the CEO is to establish and maintain regular policy and operational linkages with other economic development programs that are applicable to the mining/oil/gas industry and aboriginal development corporations in the NWT and Nunavut

Two staff members, one specializing in the mining industry and one in the oil/gas industry would assist the CEO in the screening and review of project applications submitted to the program. This sector specialization is critical in order to understand the needs of industry and to identify business opportunities for aboriginal development corporations in each sector of the mining/oil/gas industry. The fourth staff member required consists of an administrative assistant to handle the day to day financial and administrative functions of the organization.

As indicated previously, the geoscience projects funded by the program would be undertaken by federal-territorial government geoscience partnerships that have been or are currently being established in both NWT and Nunavut. The geoscience partnership in the NWT consists of the NWT Geology Division of DIAND, Geological Survey of Canada and the GNWT Department of Resources, Wildlife and Economic Development. These partners have signed a Tri-Lateral Geoscience Accord which establishes a general framework for co-operation and collaboration in the geosciences between the federal and territorial government. It provides a context in which the three parties can co-ordinate and maximize their geoscience operations. The C.S. Lord Northern Geoscience Centre is currently being developed in Yellowknife to provide a single facility for the collection and dissemination of geoscience and geological data in the Northwest Territories. A partnership similar in concept to that operating in the NWT is currently being formed to undertake geoscience programs in Nunavut

Each of these two geoscience partnerships would submit an application for each geoscience project that they would like to be funded by the Joint Aboriginal - Industry Resource Development Program. The board of directors of the delivery agency of the Joint Aboriginal - Industry Resource Development Program would be responsible for establishing the priorities for the geoscience activities funded by the program. Based on these priorities, the board of directors of the program delivery agency would review each project application submitted for geoscience projects.

As indicated in Table 6, a similar project approval process would be used for all applications for program funding. The staff of the program delivery agency would first screen each application received for eligibility. All eligible applications would then be reviewed in detail by program staff to determine if the application is complete and to assess whether the project has merits. All eligible and complete applications would then be forwarded to the board of directors along with a summary of the project analysis undertaken by program staff. The board of directors, therefore, would be responsible for approving funding for each project. Once a project is approved, program staff would monitor the progress of each project. In addition, the on-going evaluation of the program would assess the impacts of each completed project.

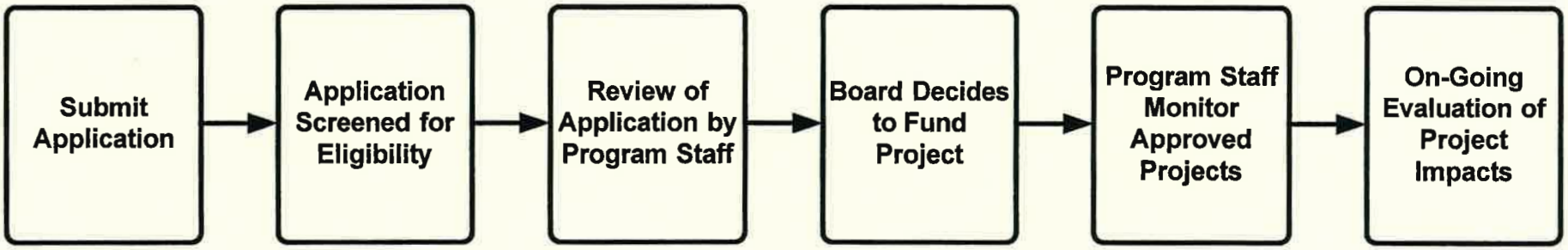
D. PROGRAM DELIVERY COSTS

The annual costs of delivering the Joint Aboriginal - Industry Resource Development Program are projected to be $550,000. The major assumptions that have been employed in developing projections for the program

TABLE 6

JOINT ABORIGINAL-INDUSTRY RESOURCE DEVELOPMENT PROGRAM

PROJECT APPROVAL PROCESS



delivery costs are as follows:

1. The salaries of the CEO, two industry specialists and the administrative assistant are assumed to be $90,000, $65,000 and $45,000, respectively. Staff benefits are assumed to be 30% of salaries paid.

2. Approximately 1600 square feet of office accommodation are estimated to be required at a cost, including utilities, property taxes and operating expenses, of $25 per square foot.

3. A bank operating line of credit of $100,000 may have to be secured to provide the working capital required by the organization.

As indicated in Table 7, staff salaries and benefits are the largest cost amounting to $345,000 or 69% of the total program delivery costs.

TABLE 7

JOINT ABORIGINAL - INDUSTRY RESOURCE DEVELOPMENT PROGRAM
ANNUAL PROGRAM DELIVERY COSTS

Cost Element	Annual Cost	% of Total
Staff salaries and benefits	$345,000	69%
Directors travel expenses	50,000	10%
Staff travel expenses	50,000	10%
Office accommodation	40,000	8%
Communications (telephone, fax, e-mail)	15,000	3%
Computer expenses	10,000	2%
Office supplies	10,000	2%
Accounting and legal	6,000	1%
Advertising and promotion	5,000	1%
Bank charges and interest	5,000	1%
Miscellaneous expenses	14,000	3%
Total	$550,000	100.0%

The projected annual delivery costs of $550,000 amount to about 9% of the budgeted program expenses of $6 million per year. These program delivery costs are low compared to most government programs where program delivery expenses can be considerably higher for a program of this type. As an illustration, the evaluation of the most recent Canada-NWT EDA indicated that the direct costs to deliver the EDA program were equivalent to 31% of the total spending on EDA projects. As a result, the establishment of a separate and independent delivery agency for the Joint Aboriginal - Industry Resource Development Program would result in a much more cost effective delivery mechanism as compared to the use of primarily

government staff to deliver the previous Canada- NWT EDA.

In addition to the annual operating costs, some additional start up costs will be incurred on a one time basis to establish the non-share capital corporation, hire the staff of the delivery agency and obtain the furniture and other capital assets required by the corporation. As indicated in Table 8, the start-up costs of the corporation are estimated to be $200,000. These start up costs also include the development of an evaluation framework and advertising expenses to launch the program.

TABLE 8

START-UP COSTS OF PROGRAM DELIVERY AGENCY

Cost Item	Amount
Legal expenses to establish non-share capital corporation.	$15,000
Travel expenses of Steering Committee to obtain funding approval for the program from federal and territorial governments.	10,000
Executive recruiting fees to hire staff of corporation.	60,000
Purchase of office furniture and computers for corporation.	25,000
Consulting fees to develop evaluation framework and appropriate management information systems	50,000
Advertising and promotion expenses for initial program launch	15,000
Miscellaneous expenses	25,000
Total Start-Up Costs	$200,000

E. LINKAGES WITH OTHER PROGRAMS

A critical aspect of the Joint Aboriginal - Industry Resource Development Program is strong linkages with the policies and programs of the federal and territorial governments involved in resource development in the NWT and Nunavut. The proposed delivery agency for the program has been structured to do the following:

1. Have a direct policy linkage with the respective Ministers of DIAND, GNWT RWED and Government of Nunavut Department of Sustainable Development.

   This will be accomplished by having a senior government member (preferably at the Deputy Minister level for territorial governments) become a member of the board of directors of the program delivery agency.

2. Be responsible for directing public funds towards resource sector projects which have potentially significant economic returns for resource and Aboriginal economic development.

3. Act as the industry - Aboriginal policy and programming linkage with other federal and territorial agencies with respect to other forms of strategic and cooperative development efforts.

This would be one of the key functions of the CEO of the program delivery agency. To perform this function, the CEO would meet regularly with representatives of other government economic development programs that impact the mining/oil/gas industry and aboriginal development corporations. The purpose of these contacts would be to mutually decide on which projects should be funded and which programs should participate in providing the project funding required. Some of the specific economic development programs that linkages would be established with include the following:

- Resource Access Negotiations, Regional Opportunities Program, Indian & Inuit Management Development Program, Development Impact Zone Program, Partnership Initiative and other economic development programs offered by DIAND.

- Equity capital, loan and loan guarantee programs provided by Aboriginal Business Canada.

- Education, training and other forms of economic development programs funded by Human Resource Development Canada.

- Education and training programs funded by GNWT Education, Culture and Employment and similar programs to be offered by the Government of Nunavut.

- Loans, loan guarantees, equity capital and other forms of business assistance provided by the Business Credit Corporation and other economic development programs of RWED and similar programs to be developed by the Government of Nunavut.

- Loans to businesses provided by the Aurora Fund.

4. Act as the operational bridge between industry/Aboriginal groups and government with respect to public sector capital and infrastructure planning.

   Because one of the priorities of the Joint Aboriginal - Industry Resource Development Program is to facilitate infrastructure projects, the program will provide funding for the planning of new infrastructure projects required by the mining/oil/gas sector. The CEO of the program delivery agency would establish regular contacts with representatives of both GNWT and Government of Nunavut that are involved in analyzing and approving public funding for infrastructure projects which have potentially significant economic impact on the mining/oil/gas industry and Aboriginal economic development. For the GNWT, this would include establishing regular contacts with representatives of GNWT Department of Transportation, Department of Resources, Wildlife and Education and the Department of Energy while similar relationships would be established with the appropriate representatives of the Government of Nunavut.

V. IMPLEMENTATION PLAN

This chapter provides a work plan and timetable for the implementation of the Joint Aboriginal-Industry Resource Development Program.

A. WORK PLAN

The major steps required to establish a delivery agency and implement the Joint Aboriginal-Industry Resource Development Program are as follows:

1. Meet with DIAND Minister Jane Stewart to present the implementation plan for the Joint Aboriginal-Industry Resource Development Program.

2. Obtain agreement that DIAND will be responsible for arranging the funding required for the start up costs and ongoing costs of the program.

   As part of this step, it will be necessary for DIAND to undertake negotiations with the territorial governments in the NWT and Nunavut to obtain agreement by the two territorial governments to fund a portion of the program costs.

3. Once funding is approved, obtain approval from DIAND to proceed with the implementation of the Joint Aboriginal - Industry Resource Development Program and provide $200,000 for the program start up costs.

4. Engage a lawyer to establish a non-share capital corporation to deliver the Joint Aboriginal-Industry Resource Development Program.

   The non-share capital corporation would be established under federal statutory legislation to enable it to operate in a number of territories rather than in just one territory. The scope of activities of the non-share capital corporation would be to deliver the Joint Aboriginal-Industry Resource Development Program. The charter for the corporation would stipulate that there are nine members of the board of directors and a simple majority is required for all decisions made by the board of directors. The charter would also specify that three board members would be selected from each of the following three classes of shareholders:

   - Government (i.e. one board member from Government of Canada, GNWT and Nunavut)
   - Mining/oil/gas industry
   - Aboriginal development corporations

5. Appoint nine individuals to the board of directors of the non-share capital corporation for a minimum period of four years.

   A board member from each of the three governments (i.e. DIAND, GNWT RWED and Nunavut Department of Sustainable Development) that provide funding for the program would be appointed to the board of directors. The most appropriate appointments for these board positions would be the most senior government representatives (preferably at the Deputy Minister level for territorial governments).

For the three board members that represent the mining/oil/gas industry, two board members would be appointed by the NWT Chamber of Mines while the other board member would be appointed by the Canadian Association of Petroleum Producers.

The three board members that represent aboriginal development corporations would consist of two representatives of aboriginal development corporations in the NWT and one representative from an aboriginal development corporation based in Nunavut. DIAND would appoint the three board members that represent aboriginal development corporations.

6. Hold an election of the board of directors of the non-share capital corporation to select an Executive Committee for the corporation for a minimum period of three years.

   The Executive Committee should consist of three members: Chairman, Treasurer and Secretary. The Executive Committee of the board of directors would handle the day to day requirements of the corporation such as the payment of on-going operating expenses of the organization.

7. Negotiate a contract between the non-share capital corporation and the governments funding the program (i.e. DIAND and participating territorial governments) to deliver the Joint Aboriginal - Industry Resource Development Program.

8. Hire a Chief Executive Officer for the delivery agency.

   The board of directors would be responsible for hiring the CEO of the corporation. An executive recruiting agency would be engaged to assist the board of directors in hiring the Chief Executive Officer.

9. Secure office space for the corporation in Yellowknife.

   Approximately 1600 square feet of office accommodation are estimated to be required

10. Purchase the office furniture, computers and other requirements for the office of the delivery agency.

11. Hire the remaining three other staff members of the corporation based on the policies established by the board of directors.

    The CEO guided by the policies established by the board of directors would be responsible for hiring the three other staff members of the corporation which consist of the following:

    - Mining Industry Specialist
    - Oil & Gas Industry Specialist
    - Administrative Assistant

    An executive recruiting firm would be engaged to assist in the hiring of these individuals.

12. Undertake an initial advertising and promotion program to create awareness and launch the program.

13. Prepare an evaluation framework and develop the management information systems required for an on-going annual evaluation of the program.

14. Engage a consultant to undertake an on-going annual evaluation of the program.

B. TIMETABLE

Table 9 contains a timetable for the major steps to be undertaken to implement the Joint Aboriginal-Industry Resource Development Program. As indicated, approval of program funding is scheduled to be obtained by October 30, 1999. The program delivery agency would then be established by the end of March, 2000. As a result, the delivery of the Joint Aboriginal-Industry Resource Development Program is scheduled to commence on April 1, 2000.

TABLE 9

JOINT ABORIGINAL-INDUSTRY RESOURCE DEVELOPMENT PROGRAM IMPLEMENTATION TIMETABLE

Step	Completion Date
Obtain approval for program funding from DIAND.	October 30, 1999
Establish non-share capital corporation to deliver the program.	November 30, 1999
Appoint board of directors for the non-share capital corporation.	January 30, 2000
Hire staff and set up office of the corporation.	March 30, 2000
Initiate program delivery.	April 1, 2000

APPENDIX 1

DEVELOPMENT POTENTIAL OF MINERAL/OIL/GAS INDUSTRY

The following paragraphs describe the current size and development potential of the mineral/oil/gas industry in the NWT and Nunavut.

A. IMPORTANCE OF MINERAL/OIL/GAS INDUSTRY

In 1997, the total GDP of the NWT and Nunavut was $2,237.7 billion. The largest contributor to the GDP is the public service (31%) representing the highest percentage of government spending in any jurisdiction in Canada. The mineral, oil and gas sector contributes 18% to the GDP making it the largest single private sector industry in the NWT and Nunavut.

As indicated in Table A.1, the total value of the mineral/oil/gas industry in the NWT and Nunavut combined in 1997 is $986.8 million. The value of the exploration and production of minerals amounted to $694.4 million or approximately 70% of the total value of the mineral/oil/gas industry. The value of the exploration and production of oil and gas in 1997 is approximately $292.5 million or almost 30% of the total value of the mineral/oil/gas industry in the NWT and Nunavut territories.

TABLE A.1
SIZE OF MINERAL/OIL/GAS INDUSTRY IN NWT AND NUNAVUT IN 1997

Industry Segment	Value ($ 000's)	% of Total
Mineral Production and Exploration		
Value of Metals Mined	$535,288	54.3%
Production of structural materials (sand, gravel and stone)	$7,191	0.7%
Mineral exploration	151,900	15.4%
Sub-total	**$694,379**	**70.4%**
Oil and Gas Exploration and Production		
Crude oil and equivalent production	$235,495	23.9%
Natural gas production	10,062	1.0%
Oil and gas exploration	46,900	4.7%
Sub-total	**$292,457**	**29.6%**
Total	**$986,836**	**100.0%**

Sources:

1. *Preliminary Estimates of the Mineral Production of Canada, By Province, 1997, Natural Resource Canada.*
2. *General Exploration Plus Mine-Site Exploration Expenditures, 1993-98, Natural Resources Canada*
3. *Northern Oil and Gas Annual Report 1997, Indian Affairs and Northern Canada*

B. MINERAL SECTOR

1. Current Situation

The mineral industry has been and will continue to be one of the driving forces behind the economies of the NWT and Nunavut. It provides direct jobs both in exploration and at operating mines. Mining and exploration activity affect every region of the NWT and Nunavut. According to the *GNWT Economic Framework* report, mineral exploration has been the primary source of growth in the small business and service sectors over the past five years, providing numerous direct and indirect business and employment opportunities.

As indicated in Table A.2, mineral exploration in the NWT and Nunavut reached a peak in 1996 with expenditures of $194.5 million. During the period from 1993 to 1998, the NWT and Nunavut combined accounted for between 20% and 25% of the total value of mineral exploration expenditures in Canada. In 1996 and 1997, the combined NWT and Nunavut territories ranked second, behind only Ontario, with regard to the total value of mineral exploration. In 1998, the two territories combined are forecast to take the lead in the amount of mineral exploration undertaken throughout Canada.

TABLE A.2

VALUE OF MINERAL EXPLORATION IN NWT AND NUNAVUT COMPARED TO REST OF CANADA

Year	NWT and Nunavut ($ millions)	Canada ($ millions)	% of Total
1993	$100.7	$477.2	21.1%
1994	$149.5	$628.1	23.8%
1995	$172.1	$717.6	24.0%
1996	$194.5	$894.8	21.7%
1997 (preliminary)	$151.9	$804.2	18.9%
1998 (forecast)	$156.4	$767.4	20.4%

Source: Natural Resources Canada

Of the total value of mineral exploration in the NWT and Nunavut in 1996, $138.8 million or 71% was spent on diamond projects, while $36 million was spend on exploration for precious metals (gold and silver) and approximately $16.3 million was spent on base metal exploration. The discovery of diamonds in the Northwest Territories by Dia Met Ltd. in 1991 started one of the largest staking rushes in recent Canadian history. During the period from 1993 to 1998, a total of $744 million is estimated to have been spent on diamond exploration in Canada.

According to the *NWT Chamber of Mines 1996 Exploration Survey*, the North Slave region accounted for about 59% of the total exploration expenditures in 1996. The areas accounting for the next largest exploration expenditures in 1996 are the Kitikmeot (23%) and Keewatin (8%).

According to the *NWT Chamber of Mines 1996 Exploration Survey*, 1161 northern residents were working in the mineral exploration industry. Of this total, 801 were full time employees while the rest were seasonal and temporary positions. This same survey indicated that purchases of goods and services by mining exploration companies from northern businesses amounted to $50.5 million in 1996.

The total value of metallic minerals mined in the NWT and Nunavut increased slightly from $530.7 million in 1995 to $535.3 million in 1997. As indicated in Table A.3, zinc is the most valuable mineral commodity generating the largest revenues from 1995 to 1997. In 1997, the value of the zinc produced is estimated to be $309.7 million which amounts to 58% of the total value of metallic minerals produced in the NWT and Nunavut.

TABLE A.3

VALUE OF METALS PRODUCED IN NWT AND NUNAVUT ($ 000's)

Metal	1995	1996	1997 (preliminary)
Gold	$244,136	$232,129	$199,970
Zinc	254,925	244,826	309,650
Lead	27,212	28,247	21,815
Silver	4,472	5,167	3,853
Total	**$530,745**	**$510,369**	**$535,288**

According to the report entitled *GNWT Economic Framework*, yearly mine employment from 1984 to 1994 has averaged 2,124 full-time positions. During this period, the percentage of northerners employed at northern mines has increased over the past several years. However, the percentage of aboriginal employment has not changed significantly ranging between 9% and 12%.

In 1997, six gold mines and two lead-zinc mines operated in the NWT and Nunavut. All of the six gold mines are in the Slave Geological Province. Four of these gold mines, Con, Giant, Ptarmigan and Mon, are located in the Yellowknife area while the other two mines, Lupin and Colomac, are further north. The two lead and zinc mines, Polaris and Nanisivik, are in the high Arctic on tidewater.

Due to the low gold prices, most of the gold mines have since ceased production. The workers at the Con mine have been on strike since May, 1998. The only operating gold mine is the Giant mine but the company that owns the mine is currently experiencing financial difficulties. The other three mines active in the NWT and Nunavut are the two lead zinc mines in the high Arctic, Polaris and Nanasivik, and the newly opened Ekati diamond mine.

2. Development Potential

According to a survey in 1997 by the Fraser Institute, the Northwest Territories ranks first in Canada when it comes to mineral investment potential. This survey of Canadian mining companies placed the NWT at the top in terms of a region's attractiveness for new investment based on geology. The initial diamond discovery focused the attention of the world's exploration industry on the NWT. Considering the vast mineral potential of the western NWT and Nunavut, the possibility of finding another Koala or a Voisey Bay is excellent, if the current rate of mineral exploration is maintained. The mineral exploration undertaken in

recent years has uncovered a wealth of mineral resources that will likely lead to the opening of a number of new mines in the NWT and Nunavut in the near future. The following paragraphs describe the development potential of the diamond, gold and base metal resources that have been discovered in the NWT and Nunavut.

a. Diamonds

The opening of the Ekati diamond mine in 1998 will likely be followed by the opening of a number of other diamond mines. It has been estimated that the NWT and Nunavut could soon be producing 10% or more of the world's diamonds.

BHP's Ekati mine is estimated to generate an estimated $14.3 billion in revenues during its 25 year span. BHP current plans are to mine five kimberlite pipes: Panda, Misery, Koala, Fox and Sable. However, about 100 kimberlite pipes have been identified on BHP's 344,000 hectare property and it is likely some of them will be mined later. Total proven and probable reserves are 65.9 million tonnes at a grading of 1.09 carats per tonne; the average diamond value per karat is US$84. Ekati will produce between 3.5 million and 4.5 million carats of diamonds annually representing 4% of the world's production of diamonds by weight and 6% by value. The annual revenues generated therefore will range between about US$300 million and US$400 million.

Approximately $699.4 million was spent to bring the mine into production and over 50% of the construction of the mine was undertaken by northern companies. The initial workforce to operate the mine is 650. BHP company representatives estimate that of the $80 million in annual expenditures for mine service and supply costs, approximately $57 million will be spent with northern companies for the purchase of fuel, food, explosives and transportation related services.

Diavik Diamond Mines Inc., headquartered in Yellowknife, is likely to be Canada's second producer of rough diamonds. The $875 million mine is scheduled to be open in 2002 and is located 300 kilometres northeast of Yellowknife, across Lac du Gras from BHP's Ekati mine. The proposed mine centres on the development of four kimberlite pipes (A-418, A-154 South, A-154 North, and A-21) that together contain a diluted mineable reserves of 26 million tonnes averaging 3.90 carats per tonne, with an average estimated value of US$56 per carat.

Diavik is currently completing an $80 million feasibility study including an environmental assessment of its proposed mine. Constructing the proposed Diavik mine will generate 600 jobs and take an estimated two years. Once the mine is operational, it will employ between 300 and 400 people as well as generate 270 indirect jobs. Mine life is estimated at 16 to 22 years but there is tremendous exploration potential adjacent to the main project site. Annual salaries and benefits from an operational mine at Diavik are estimated at $25 million. Diavik plans to purchase $90 million worth of goods and services each year to supply the mine. Diavik's production rate is estimated at six to eight million carats per year thereby generating annual revenues of about $500 to $600 million.

Another diamond mine is currently being investigated for the AK diamond property which is located 150 kilometres southeast of Lac du Gras and 275 kilometres northeast of Yellowknife. This property is 90% owned by Mountain Province Mining company and 10% by Camphor Ventures Inc. The property's operator, Monopros Ltd., is a wholly-owned subsidiary of De Beers. Monopros has an option to earn 60% on commencement of commercial production. Monopros also has a 60% interest in the Doyle lake property where Gerle Gold is searching for diamonds. A pre-feasibility study of a mine located at the AK property is currently being undertaken. If the results of a bulk sample to be taken in June, 1999 are positive, a full-scale feasibility study of a mine will be undertaken and a mine could be constructed on the property within three years.

A diamond mine could also potentially to be developed on the Jericho site which is located 400 kilometres northeast of Yellowknife, just 20 kilometres north of the Lupin gold mine site. Jericho is owned by Tahera Corporation (formerly Lytton Minerals). JD-1 is a land based kimberlite pipe estimated to contain a resource of 6.1 million tonnes grading 0.94 carat per tonne. A 10,539-carat parcel of diamonds recovered from an underground bulk sample was valued at an average of US$59.61 per carat. The JD-3 pipe lies under a small lake 7 kilometres west of JD-1 and is estimated to contain a resource of 10.5 million tonnes. A pre-feasibility study on the JD-3 pipe calculated an open-pit resource, potentially minable by open-pit methods, of 3.8 million tonnes grading 1.01 carats at an average value of US$60 - $70 per carat. Tahera Corporation in currently undertaking additional exploration on its Jericho and Contwoyto area projects to uncover additional diamond resources to justify the construction of a mine.

The Camsell Lake diamond project which is 220 kilometres northeast of Yellowknife also has significant diamond resources that are located on a gently dipping kimberlite dyke that subcrops on a peninsula jutting into the northwestern corner of Snap Lake. The Snap Lake dyke has yielded the highest diamond values ever reported from the territories. Based on a 226.72 carat parcel of stones recovered from two 100-tonne surface samples, the diamonds were determined to be worth an average of US$343 per tonne, based on a preliminary grade of 1.14 carats per tonne. The find is the first in North America to host a significant amount of colored diamonds. Yellow, as well as some brown, green and pink diamonds were extracted. A scoping study estimated that the portion of the northwest dyke underlying the peninsula contains a resource of 1.3 million tonnes, of which 667,000 tonnes are minable by open-pit methods. An aggressive drilling program is planned for 1999 that will focus on the portion of the dyke that extends beneath Snap Lake to uncover additional diamond resources.

Significant diamond resources have also been discovered near the shoreline of Munn Lake at the Back Lake project which is 50 kilometres northeast of Snap Lake. A 581 kilogram sample yielded 62 macro-diamonds (more than 0.5 mm in at least one dimension) and 164 micros.

In addition to the above diamond properties, several other companies have mounted extensive diamond exploration projects in the NWT and Nunavut. This exploration has resulted in the discovery of additional diamond resources. Some examples of these discoveries are as follows:

- Tanqueray Resources and Mill City Gold Mining Corp. discovered six diamond-bearing kimberlite pipes on the Yamba Lake property.
- Tradewind Resources undertook bulk sampling from its Drybones Bay pipe and recovered 54 macro-diamonds.
- In 1998, Monopros discovered five kimberlite bodies on Victoria Island while testing eight targets.

b. Gold

Both the NWT and Nunavut are projected to have several operating gold mines in the near future. Giant is the only gold mine currently operating and has sufficient reserves to be in production for five more years. However, Royal Oak has been undertaking extensive exploration to locate additional reserves to extend the life of the mine. Once gold prices recover, several of the other existing gold mines will re-open. As an illustration, Echo Bay Mines has indicated that it wants to preserve the gold resources at its Lupin mine and the mine will likely be re-opened once gold prices recover.

Despite low gold prices, exploration for gold has continued both in the NWT and Nunavut. Furthermore, the following two new gold mines are likely to be constructed even at the current gold prices:

- Sufficient gold reserves have been discovered at the Comaplex-WMC Meliadine West project to justify the construction of a mine. A pre-feasibility study has already been completed and current plans are to develop a mine approximately 15 kilometres north of Rankin Inlet. The mine would generate revenues of about $100 million annually and provide employment for approximately 300 people. A road will have to be constructed from Rankin Inlet to provide access to the mine.

- Cumberland Resources is currently completing a pre-feasibility study and plans to construct an open pit gold mine at its Meadowbank project which is 80 kilometres north of Baker Lake. The mine will provide employment for 280 people during the 12 year life of the mine. The company plans to establish its base at Baker Lake. To obtain access to the mine site, a port will have to be constructed on Baker Lake.

Substantial gold resources have also been found at a number of other locations that could lead to the opening of a number of other gold mines in the future. One of the most developed of the gold projects is BHP Mineral's Boston project in the Kitikmeot region near Bathurst Inlet. The Boston project is located in the Hope Bay mineral trend which is about 700 kilometres northeast of Yellowknife.

Some examples of other projects where substantial gold resources have been discovered include the following: Ulu, Arcadia, Pistol, Damoti, George, Goose, Nicholas Lake, New Discover, Boot, Esker, Butterfly, Ren, Doris, Lach, Turner and Hen. According to the *GNWT Economic Framework*, if some of these gold deposits are developed into operating mines, total new direct employment could be well above 1,200 jobs.

c. Base Metals

Of the two existing base metal mines, Polaris is forecasting to close in 2001. Based on the existing reserves, the life of the Nanisivik mine is also less than ten years. However, to extend the life of the Nanisivik mine, which employs 200 people, 3,048 metres of underground drilling for ore definition and a surface exploration program on and around the mine property were recently undertaken.

In addition to these two existing mines, substantial base metal resources have been discovered which could lead to the development of a number of additional base metal mines in both the NWT and Nunavut in the future. Some examples of significant base metal resources that have been discovered in the Kitikmeot region are provided below:

- Izok resource is one of North America's largest undeveloped zinc-copper resources. Mineable reserves are estimated at 16.5 million tonnes grading 11.4% zinc, 2.2% copper, 1.1% lead and 60 grams per tonne silver. According to representatives of Inmet Mining Corp., a road to the property will first have to be developed before these resources can be mined.

- High Lake reserve of 5,300,000 tonnes averaging 4.05% copper, 2.36% zinc, 1.76 grams per tonne gold and 31.73 grams per tonne silver.

- Muskok resource containing chrome, copper, nickel, silver and platinum group elements. Results include 4.5 million tonnes grading 15.3% chromium, 0.25% copper, 0.15% nickel and minor elements.

- Hood River 1.8 million tonne reserve averaging 3.4% copper, 4.5% zinc, 27 grams per tonne of silver, 0.3% lead, 0.5 grams per tonne gold. A second zone 992,000 tonne reserve with grading of 1.4% copper, 3.2% zinc and 10.9 grams per tonne silver. A third zone includes 1.2 million reserve of 2.4% copper, 3.3% zinc and 14.6 grams per tonne silver.

- Gondor zinc-lead-sliver resource. Estimated geological reserve, 7.3 million tonnes grading 4.8% zinc, 0.4% lead, 0.2% copper and 0.5 grams per tonne silver.

- Hackett River is the largest known undeveloped base metal resource in Nunavut and is second in value only to the high-grade Izok deposit. Hackett's resource is six zones totaling 19.5 million tonnes of ore with average grade of 4.98% zinc, 0.75% lead, 0.41% copper, 149.8 grams per tonne silver and 0.45 grams per tonne gold.

- Yava reserve grading 3.0% zinc, 0.5% copper, 0.5% lead, 102.8 grams per tonne silver and 2.0 grams per tonne gold.

- Musk 340,000 tonne reserve containing 10% zinc, 1.4% lead, 1.2% copper and 343 grams per tonne silver.

In the area south of Kugluktuk, there are significant copper resources in the Coppermine River Group flood basalts (June, Burnt Creek and Wreck Lake resources). As an illustration, inferred reserve for Wreck Lake reserve are 3.8 million tonnes grading 2.96% copper.

In the Inuvialuit region near Paulatuk, there are significant nickel and copper resources at Darnley Bay. Compared to other world class deposits, the resources at Darnley Bay are estimated to be:

- Four times stronger than the anomaly over the Sudbury Basin, the location of the world's largest economic nickel-copper sulfide deposit.

- Twice as strong as the Bushveld Complex anomaly in South Africa, host of 70% of the world's known platinum resources.

- Five times stronger than the anomaly found over the Noril'sk deposit in Russia, host of today's highest grade producing nickel deposits.

To mine and ship the mineral resources near Darnley Bay, it will be necessary to undertake hydrographic surveys and construct a port at Darnley Bay.

d. Summary

The NWT and Nunavut are rich in vast, untapped mineral resources. The mineral exploration undertaken in recent years have resulted in the discovery of large reserves of a wide variety of minerals including diamonds, gold and base metals which will lead to the opening of a number of new mines in the next few years. It is likely that at least two more diamond mines will be opened in addition to the Ekati mine. In addition, two new gold mines are likely to be opened in the Keewatin even at current gold prices. If gold prices increase, a number of other new gold mines are likely be constructed and some of the existing gold mines in the NWT would re-open. Furthermore, if base metal prices improve, a number of new base metal mines could also be constructed. Consequently, the mining sector could create at least 2,000 to 3,000 new direct jobs in the NWT and Nunavut within the next ten years.

C. OIL AND GAS SECTOR

1. Current Situation

As indicated in Table A.1, the value of the oil and gas produced in the NWT and Nunavut in 1997 is

estimated to be $245.5 million of which over 95% consists of the production of oil. To date, most oil production has been from the Norman Wells field in the central Mackenzie Valley. Interprovincial Pipeline Ltd.'s 30 centimetre diameter pipeline runs from the Norman Wells field to Zama, Alberta, 866 kilometres to the south. As indicated in Table A.4, the volume of oil produced from Norman Wells has declined steadily from 1.79 million cubic metres in 1993 to 1.58 million cubic metres in 1997. Some oil has been produced from the much smaller Bent Horn field in the Arctic Islands but the Bent Horn facility ceased production in 1996.

TABLE A.4

OIL AND GAS PRODUCTION IN NWT AND NUNAVUT

	1993	1994	1995	1996	1997
Oil Production (thousands of cubic metres)					
Norman Wells	1790.0	1730.0	1697.6	1631.8	1584.6
Bent Horn	56.9	52.9	35.3	39.6	0
Total	1846.9	1782.9	1732.9	1671.4	1584.6
Gas Production (millions of cubic metres)					
Pointed Mountain	99.6	63.6	65.9	47.2	33.9
Norman Wells	133.6	123.9	129.8	132.4	135.5
Total	233.2	187.5	195.7	179.6	169.4

Source: DIAND Northern Oil and Gas Report 1997

Gas is currently produced from Norman Wells and Pointed Mountain which is located close to the B.C. border. Amoco-operated Pointed Mountain gas field entered production in 1972. Peak production occurred in the mid-1970's and has since declined to the production of 33.9 million cubic feet of gas in 1997. Gas from the single producing well flows through a raw gas pipeline to Fort Nelson, B.C. where it enters the Westcoast system. The natural gas produced at Norman Wells is used locally and for re-injection to enhance oil recovery.

Oil and gas exploration has increased significantly since the termination of a 25 year moratorium on the issue of new exploration rights in the NWT. As indicated in Table A.5, industry exploration expenditures tripled in 1996 and 1997 from the level of exploration undertaken during the period from 1993 to 1995. Oil and gas exploration has increased significantly in the last few years in parts of the central and northern Mackenzie Valley, spurred by the issuance of new petroleum issuance rights. Interest has also quickened in the Mackenzie Delta where there have been prominent discoveries of both oil and natural gas. There have also been some significant discoveries in the Arctic Islands.

TABLE A.5

OIL AND GAS EXPLORATION ACTIVITY IN NWT AND NUNAVUT

	1993	1994	1995	1996	1997
Metres drilled	0	6,471	4,850	12,677	17,163
Geophysical programs	2	0	3	15	8
Industry Expenditures ($ millions)	$15.5	$12.4	$16.6	$50.0	$46.9

An existing gas discovery is being developed for power generation and heating in the town of Inuvik. A development plan for the Ikhil K-35 gas discovery on the Mackenzie Delta was filed with the National Energy Board by the Inuvialuit Petroleum Company. The field lies some 50 kilometres north of the town of Inuvik and the project will supply gas by pipeline to this community for electrical power generation and town gas. The project will eventually replace diesel fuel imported to Inuvik from Edmonton with locally produced natural gas. This increases local self-sufficiency, improves efficiency and is expected to reduce energy costs substantially.

Since 1994, three calls to industry to nominate lands of interest for oil and gas exploration in the Central Mackenzie Valley have resulted in the issuance of 14 exploration licenses (ELs). Oil is the primary objective of exploration in this region to exploit spare capacity in the existing IPL pipeline and to offset future declines in production from the Norman Wells field.

Calls for nomination have also been issued in the Fort Liard area commencing in 1994. In the absence of land claim negotiations in this region, renewed issuance was based on community support of the economic activity that exploration generates. This expectation has been well met with uptake by companies of 14 ELs. The surge in business opportunities to service and supply new exploration programs has been successfully captured by the Liard Valley Development Corporation owned by the Acho Dene Koe Band of Fort Liard. There has been a marked increase in job opportunities for residents of Fort Liard and surrounding communities.

Gas is the primary exploration objective in the Ft. Liard area although several oil plays are also promising. The existing Westcoast sour gas pipeline from Pointed Mountain field to Fort Nelson can accommodate significant additional volumes from new gas discoveries. Further east, new discoveries may supplement supply from new export pipelines from the Western Canada Sedimentary Basin to feed continent-wide markets in the United States.

2. Development Potential

The increased exploration activity in recent years reflects a positive assessment of the commercial viability of the potential for new discoveries in regions of the North where production could rapidly follow discovery. Renewed exploration is occurring in a climate where the outlook for oil and gas prices is flat so profit is strongly related to reducing operating costs.

According to a recent DIAND report, there is reason to hope that the return of petroleum exploration to northern Canada is based on robust economics and is for the long term. One of the major factors contributing to the large development potential of the oil and gas sector in the NWT and Nunavut is the vast amount of oil and gas resources that have not yet been tapped. According to DIAND's 1997 Northern Oil and Gas Annual Report, estimates of oil and gas resources discovered in the mainland Northwest Territories

and Yukon, the Mackenzie Delta-Beaufort Sea, and the Arctic Islands (including the eastern Arctic offshore) amount to some 345 million cubic metres of oil and 811 billion cubic metres of natural gas. In 1997, the Yukon and NWT held about 25% of Canada's remaining discovered conventional oil and 24% of remaining discovered gas as indicated in Table A.6. The importance of the northern basins is also heightened by the fact that the North is estimated to contain approximately 40% of both Canada's undiscovered conventional light crude oil potential and its undiscovered conventional gas potential. As indicated in Table A.6, the Mackenzie Delta/Beaufort Sea account for the largest proportion of the North's recoverable oil resources while the Arctic Islands/Eastern Arctic Offshore account for the largest proportion of northern Canada's recoverable natural gas resources.

TABLE A.6

NORTHERN CANADIAN OIL AND RESOURCES COMPARED TO REST OF CANADA

Area	Recoverable Conventional Light Crude Oil		Recoverable Conventional Natural Gas	
	Discovered	**Undiscovered**	**Discovered**	**Undiscovered**
Mainland Territories	2%	1%	1%	4%
Mackenzie Delta/Beaufort Sea	18%	21%	12%	15%
Arctic Islands/Eastern Arctic Offshore	5%	16%	13%	21%
Total	**25%**	**38%**	**26%**	**40%**

One third of northern Canada (north of 60 degrees latitude) is covered by sedimentary rock. Major basins with proven potential have been found in northern Canada beneath the Canadian Shield in the East and the Rocky Mountains to the west (overlying the northern part of the Western Canada Sedimentary Basin); the Mackenzie Delta/Beaufort Sea, and the Arctic Islands (the Sverdrup and Franklinian basins). In the far northwest, oil and gas have been found in the Eagle Plain in Yukon and in the east, gas/condensate has been discovered on the continental shelf southeast of Baffin Island. Between these geographic extremes lie numerous basins and sub-basins with petroleum potential that remains largely unexplored.

Northern Canada has seen relatively little production of its oil and natural gas compared to southern Canada. The geological basin located in the southern NWT is a continuation of the Western Canadian Sedimentary Basin and has some of the same exploration plays found in northern B.C. and Alberta. Although Northern Canada contains approximately one quarter of Canada's remaining discovered oil and gas resources and about 40% of its future reserves of oil and gas, exploration of the NWT and Nunavut is only at an early stage. As a comparison, in Alberta, there have been 150,000 wells drilled compared to only 1,500 in the northern Canada. That there has been much success in finding significant pools, given limited activity in this area, suggests that the NWT and Nunavut may contain significant undiscovered oil and gas reserves.

Increased exploration and production of oil and gas has the potential to create a substantial number of new jobs in the NWT and Nunavut. As an illustration, a study by the Canadian Energy Research Institute projected that between 500 to 1,000 direct jobs could created by increased gas exploration in the Ft. Liard area in the near future. By accounting for oil and gas exploration and production likely to be undertaken in other areas of the NWT and Nunavut, total direct employment could be increased by 1,000 to 1,500 jobs within the next ten years.

D. SUMMARY

There exists tremendous potential to develop the mineral/oil/gas industry in the NWT and Nunavut. Several new mines including diamond, gold and base metal mines could be established in the next ten years if the price of gold and base metals recovers to historical levels and government assistance is provided to encourage the development of new mines. The development of new mines and increased mineral exploration could result in the creation of at least 2,000 to 3,000 new jobs in the mineral sector.

In the oil and gas sector, increased oil and gas exploration and production has the potential to create as many as 1,000 to 1,500 new jobs in the next ten years. Therefore, a total of between 3,000 to 4,500 new jobs could be created by the mineral/oil/gas industry in the NWT and Nunavut in the next ten years.

Considering that there are about 27,600 people employed (1996 census) in the NWT and Nunavut, the mineral/oil/gas industry could contribute to an increase of almost 20% in the total number of jobs available. No other sector of industry is capable of generating such a large number of jobs in the NWT or Nunavut within the next ten years. As a result, stimulation of the mineral/oil/gas sector must be accorded the highest priority in order to achieve significant economic growth and job creation in these two territories.