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ECONOMIC DEVELOPMENT PROSPECTS IN THE NORTHWEST TERRITORIES

One of a series of reports
on development prospects
in the provinces, territories,
and regions of Canada

prepared by *Canada*

the Department of Regional Economic Expansion]



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IN THE NORTHWEST TERRITORIES

PREFACE

In 1973, the Department of Regional Economic Expansion issued a series of reports on the economic circumstances of each of the provinces and their prospects for development. These reports were useful in discussions leading to the successful implementation of a new federal-provincial mechanism, the General Development Agreement, which was designed as a flexible tool to pursue regional development in Canada. This mechanism has as its central objective the formulation of integrated federal-provincial regional development strategies based on the identification and pursuit of development opportunities.

With the aid of hindsight, it now appears that the mid-1970s represented a watershed period in many respects, as fundamental realignments and adjustments occurred internationally and within Canada. These considerations, in conjunction with the recent public discussion concerning the appropriate roles of business, labour and governments in the economy, suggest that this is an opportune time to review in a comprehensive fashion some major economic issues and factors affecting regional development. This report represents the first comprehensive DREE review of territorial economic circumstances and opportunities. It also examines the major factors affecting the territorial economy's performance. In addition, it explores the policy issues and instruments which affect development planning and which have a bearing on the potential for realizing development opportunities.

The analysis begins with a detailed description of the factors affecting economic development and an assessment of the economic performance of the Northwest Territories. This section provides a context for the next section which deals with specific development problems facing the territory and the issues which bear on its economic development. Federal and territorial approaches to development are then discussed. The following section on development opportunities is the central focus of the report. In this section, the comparative advantages of the territory are described and potential economic development opportunities are highlighted.

It is a truism that, over time, regional economic circumstances and development opportunities will continue to change and evolve. In a similar vein, it is obvious that economic development will continue to require an evolving spirit of policy coordination within and between various orders of government. In this context, it is hoped that this report will serve as a backdrop to discussions on the economy and to the further formulation and implementation of integrated development strategies and, at a broader level, contribute a spatial dimension to economic policy-making over the medium term.

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1. OVERVIEW

The Northwest Territories is an immense and sparsely-populated area characterized by extremes of climate; significant regional disparities in terms of geography, infrastructure, social conditions, economic activity and community hierarchies; rapid population growth; very high rates of unemployment and underemployment; a heavy dependence on government spending and employment; and the existence of two distinct and frequently conflicting economies, the modern wage-employment economy and the traditional economy. Offsetting these factors is an abundance of largely untapped natural resources.

The traditional economy, which is in keeping with the values and lifestyle of northern native people, yields subsistence-level incomes for the most part. Demands for opportunities to participate in the modern economy on a full or part-time basis are increasing, particularly among the young. Many of these people are among the approximately 350 students who leave or graduate from the school system each year. Others find that subsistence living no longer satisfies their personal goals, although they are unwilling to relinquish their close ties to the land.

Over the medium term, only the expansion of the non-renewable resource sector can meet this demand for job creation. For this to be effective, however, spin-off benefits which presently accrue to southern Canada and foreign countries must be captured increasingly within the Northwest Territories and made available to local residents.

A major effort must be made to achieve a balance in development between the renewable and non-renewable sectors and between conventional employment opportunities and traditional economic activities, so that residents have a realistic choice between the two sectors (or combination of the two) which will allow them to maintain lifestyles in keeping with their needs and aspirations. This balance can be improved and both the modern and traditional economies strengthened by promoting and developing the presently very weak linkages between and within the two economies. These linkages could be generated, for example, through the development of employment opportunities in the various sectors of the traditional economy and the stabilization of these sectors; the identification of opportunities suited to supplementing the traditional activities or those compatible with native desires to maintain a close contact with the land; the implementation of new approaches to larger development projects, specifically a number of small-scale, locally-controlled enterprises flexible enough to accommodate demands for part-time employment; and through measures which ensure that the people in the Northwest Territories themselves have a say in the planning and development of these activities.

2. ECONOMIC DEVELOPMENT FACTORS

2.1 Background

The Northwest Territories are unique both in their physical characteristics and the background and composition of their people. Their size is immense: they span 2 897 kilometres from Inuvik in the west to Frobisher Bay in the east. Their 336.7 million hectares constitute one third of the land mass of Canada. Within this vast area, circumstances present unique development opportunities as well as problems. The region has a tremendous wealth of largely untapped natural resources which include minerals, forests, fresh water and recreational assets. At the same time, the Northwest Territories is the home of a number of people who view these resources as the foundation of their economic, social and cultural lifestyle.

In contrast to their physical size the territories sparsely populated. According to the 1978 estimates, 46 000 residents live in approximately 60 widely scattered communities. Territorial data rather than Statistics Canada data are used due to data collection difficulties of the latter. People of Indian and Inuit ancestry continue to make up the majority of the population as a result of continuing high birth and decreasing death rates. They also possess distinctive skills, interests, abilities and expectations. Preservation of their way of life and recognition of their aspirations must be priorities in all developmental activities.

The extent of regional infrastructure is a limiting factor in promoting economic development in the north. Transportation and communications networks, for example, have to cover extremely great distances; in many areas they are poorly developed. A limited road network exists in the west, but elsewhere communities are accessible only by air or sea. Eastern Arctic settlements rely on one or two supply shipments each year during a short, variable shipping season. Limited and high-cost energy, water treatment, and waste disposal facilities often impose other infrastructure constraints on development. Consequently, the costs and risks of carrying on business in the north are extraordinarily high by Canadian standards.

The overall economy of the Northwest Territories is very narrowly based. The public sector, consisting of federal, territorial and municipal governments and their programs, is the largest employer. The second most important employer is the non-renewable resource sector, including the mining and oil and gas industries. Next is the renewable resource sector, which includes hunting, fishing, trapping, and forestry. These are supplemented by small manufacturing, tourism and service sectors. Generally speaking, activities in the sectors which

provide the majority of private wage employment tend to be large and capital-intensive, while activities in the traditional sector are small-scale and labour-intensive.

Few northern needs are met through northern production or manufacture. The Northwest Territories export partially-processed resources and some craft items while importing most capital and consumer goods. Country food, the mainstay of many communities, is in short supply in some areas, while surpluses are underutilized in others. Economic linkages among both sectors and communities are poorly developed, and little value-added remains in the north.

The income and employment of the people of the territories depend primarily on two sources -- government and major resource development projects. In 1974, some 47 per cent of wages and salaries in the Northwest Territories originated in government, plus an additional 10 per cent in government operated enterprises. Most of the remainder came from export-oriented corporate enterprises. Exports were concentrated in minerals, including oil and gas, which accounted for 88 per cent. Small sales of furs, fish and miscellaneous crafts supplemented the non-renewable exports.

The inhabitants of the smaller communities are increasingly seeking wage employment to supplement or replace traditional pursuits. However, there are limited opportunities to find employment and develop the array of skills required for full participation in the wage economy. At the same time, the labour force in the Northwest Territories is developing, in terms of both skills available and size. The estimated working age population is expected to grow from 25 900 in 1976 to 35 100 in 1986, an increase of 35 per cent. Approximately 1 000 people leave or graduate from the school system each year. Unemployment rates in small communities are estimated to vary between two and eight times the national average. In addition, many of those working are considered to be underemployed.

Many of these people, especially those of Indian or Inuit ancestry, are presently faced with the choice between traditional land-based activities or government support through make-work projects or transfer payments. The rapidly increasing population in combination with the increased pressure on the wildlife resource base will narrow even these alternatives in the future. Many are now seeking access to modern economic opportunities, but in a manner that will enable preservation of their life-style and culture. For this reason avenues for job rotation may need to be explored.

2.2 Factors

2.2.1 Demographic

The population of the Northwest Territories has grown rapidly during the 1970s, from 34 805 in 1971 to an estimated 46 386 in 1978, an average annual rate of 4.1 per cent, well above national rates. This rapid growth is expected to continue. Currently, the population is about 20 per cent Indian and Métis, 32 per cent Inuit and 48 per cent non-native; the non-native population is expected to be a 50.1 per cent majority by 1982. The age structure shows a high proportion in the younger age groups, especially in the native population, and a significant bulge in the 20 to 40 age group of the non-native population -- a consequence of migration patterns. Current territorial projections estimate a 1981 population of between 48 000 and 52 000, depending on the stability of past trends and the migration response to economic conditions. The total population should exceed 60 000 by 1985.

The population is becoming increasingly agglomerated into organized settlements rather than urbanized in the usual census definition. Only five centres -- Yellowknife, Hay River, Inuvik, Frobisher Bay, and Fort Smith -- meet the census definition. They contain just under half the population and appear to be growing at the expense of some of the smaller centres.

2.2.2 Resource Endowments

The Northwest Territories are richly endowed with resources by any standard. Eight mines were operating in 1978, including two gold mines, two lead-zinc, three silver-copper, and one tungsten. Many more deposits are known, containing copper, zinc, lead, silver, gold and uranium, but their remoteness, the lack of infrastructure, and market conditions render most of them uneconomic at present. The territories also contain estimated proven reserves of over 47.7 trillion litres of oil and 396.4 billion cubic metres of natural gas.

The forestry resource consists of softwoods suitable for lumber, piles and pulp. In areas with ready water transit available, sustained yield estimates are 11.8 million cubic metres per year in the Slave River area, 11.8 million cubic metres on the lower Mackenzie River, and 94.4 million cubic metres in the upper Mackenzie and Liard districts. Current production is highly variable and hampered by low productivity, underfinancing, and poor local market penetration.

Agriculture is almost nonexistent in the Northwest Territories. Hardy vegetable and cereal crops could possibly be grown on 1.1 million hectares along the Slave, Hay, Liard, and upper Mackenzie Rivers, and an additional 1.4 million hectares

could support seeded forage. Development is constrained by climate, high costs, high risks, limited markets, a complete lack of infrastructure, and the unsettled native land claims.

Some hydro potential exists on the Slave River, though any hydro development there or elsewhere is constrained by unresolved native land claims and related problems such as the flooding of traplines. For that reason, under present circumstances, conventional hydro development on the Slave River can only be done by placing a dam at or near the Alberta-Northwest Territories boundary so that flooding occurs in northern Alberta. The resulting power supply, however, could play a major role in the development of industry in the Northwest Territories.

The traditional resources include fish, fur-bearing and game animals, and a significant marine animal resource. Commercial fisheries exist on Great Slave Lake, at Cambridge Bay, and at a few locations in the Keewatin and Baffin regions. Local markets exist in the larger centres, but high transportation costs and the diseconomies of small scale limit development. Trapping provides supplementary cash income for many northerners, though very few derive a full-time income from this activity. Principal species are marten, muskrat, beaver, and lynx south of the tree line and seal and musk ox beyond. Seal is also a major protein source for the Inuit north of the tree line. A 12 000 animal reindeer herd is managed and harvested commercially in the western Arctic. Subsistence hunting is a major element in the traditional economy and very important to many small communities; commercially, it is relatively insignificant. Commercial expansion is possible but restricted by a lack of meat-handling facilities, an underdeveloped market, and lack of data on herd sizes and sustainable yields.

2.2.3 Market Environment

Markets for most territorial products are determined externally, either in southern Canada or internationally. The traditional sector -- furs, fish, and miscellaneous crafts -- accounts for less than 5 per cent of exports from the territories. Mineral markets, which account for most of the balance, are determined internationally. The remoteness of new mineral deposits and the lack of infrastructure, particularly transportation, make mining and exploration acutely sensitive to international market fluctuations. Local market development for any product -- furs, fish, handicrafts, lumber, market garden produce, wild meat and manufactured products -- is limited by population size and distribution and the very limited, high-cost transportation system. The population is small and widely scattered. Local demand is insufficient to support much economic diversity and such demand as exists can be more easily met by southern suppliers with lower unit costs. Intersettlement

markets for country food surpluses appear underdeveloped at present.

2.2.4 Sub-territorial Distributions

For development consideration, two major regions may be identified: the Arctic, marked by the permanent ice cap, oil and gas bearing islands, mountainous coastal regions, and broad expanses of tundra where most communities are dependent largely on land-based resources; and the Mackenzie Valley, lying below the tree line, differing from the other area because of its major transportation artery, the Mackenzie River, its greater population density, its land transportation links with western Canada and its producing mines and small industrial establishments. Eighty-three per cent of the residents of the Arctic region are people of Inuit or Indian ancestry, in contrast to the Mackenzie Valley where 62 per cent of the residents are of European descent. As may be expected from the population distribution, the centre of gravity of the modern economy is located in the Mackenzie Valley, while the traditional economy is centred in the Arctic.

2.3 Overview of Economic Performance

Information on the territories is generally not as comprehensive, current, or readily available as it is for the provinces. The land area is enormous, the population small and dispersed, and data gathering costly and time-consuming. Many of the standard indicators and forecasts simply do not exist for the territories, and those that do tend to be a few years behind those available for the provinces. Moreover, questions arise as to the relevance of concepts like labour force and unemployment in an economy where subsistence hunting and fishing are present to such a significant degree. Most socio-economic indicators are defined and interpreted in the context of a market economy and, therefore, have limited usefulness in this situation. The territorial economy is dominated by three things: government, mining, and traditional subsistence activities. The last, of course, is not reflected in the usual economic indicators; it has had negligible spin-off effects, yet is certainly of great economic value to those who practice it. All statistical data should be carefully considered in this light.

2.3.1 Labour Markets

The determination of unemployment and participation rates and employment levels is difficult in an economy like that of the Northwest Territories. Participation and employment status of this group is largely indeterminate. Government agencies, both territorial and federal, employ about 6 000 and the private sector about 5 300. There may be as many as 1 200 mainly native people, employed in the small arts and crafts operations of under 20 employees which are missed by the employment surveys, for a total employment level of 12 500.

Unemployment rates are high -- from two to eight times national rates in various communities -- and the overall rate is estimated to be about 18 per cent. It should be noted, again, that unemployment is a difficult concept to apply meaningfully to a population engaged in subsistence hunting and fishing.

New labour force entrants are expected to average about 1 000 per year over the next decade. The territorial economy will not be able to reduce current unemployment levels or absorb new labour force entrants without sustained expansion of the major sectors. In the medium term, it is apparent that only the extractive industries and resulting spin-offs will be able to absorb this influx. Of these 1 000 labour force entrants, those who wish to pursue the traditional endeavours are able to do so; however, a realistic alternative or combination of the two must be sought.

2.3.2 Investment Climate

Investment in the Northwest Territories depends almost entirely on government and the non-renewable resource sector. The area has experienced several investment booms in the past few decades -- mining, oil and gas, and government, including construction of the Distant Early Warning Line. A positive investment climate requires fiscal and regulatory stability, support and incentive programs from the public sector, and good international market conditions for the region's mineral products. Since the cancellation of the proposed Mackenzie Valley Pipeline, the economy has been somewhat sluggish, but the medium term looks cautiously optimistic.

2.4 Sectoral Review and Medium-Term Prospects

For the purposes of this discussion, the economic sectors of the Northwest Territories are divided into their two major categories: the modern, comprised of mineral production and exploration, forestry, tourism, manufacturing and services; and the traditional, comprised of trapping, fishing, hunting and related subsistence activities. Although these categories are not mutually exclusive, the modern activities tend to be pursued by migrants from the south, and the traditional endeavours are followed by the indigenous peoples.

2.4.1 Modern Sectors

(a) Mining

Mining and mineral exploration is the chief employer in the non-renewable resources sector. In 1977, approximately 1 750 people were employed in the producing mines. The total dollar value of the lead, zinc, gold, copper, silver and tungsten mined in 1977 was \$217.8 million. However, mineral production in the Northwest Territories is a rather small portion of total Canadian

output, with the important exception of lead, which accounts for 23 per cent of total Canadian production. Total production from all mines from 1968 to 1977 was valued at \$1.8 billion, with lead and zinc accounting for over \$1 billion of that total. Mineral exploration has increased steadily with a renewed interest shown in gold, silver and uranium properties.

While growth in the Canadian mining industry generally is largely dependent on external factors and in particular the international mineral market, the major impediments to development in the Northwest Territories are internal -- the lack of infrastructure, native land settlement claims, government regulations regarding further processing, and so on. Production has been increasing steadily and was estimated to have reached almost \$240 million in 1978. Zinc and lead are the largest contributors, followed by gold and silver. All four metals are often associated with each other geologically in complex ore bodies; lead and zinc in particular tend to occur and be mined together. Prices are strong for lead, gold and silver and somewhat uncertain for zinc. On balance, future prospects appear to be good though there is a possibility of growing zinc inventories.

Exploration is an important component of the mining sector in terms of the expenditures and employment. An estimated 1 600 seasonal jobs are provided by this activity. Exploration for base metals has been declining in recent years but, in 1978, the trend reversed to reach a new high due to rapid growth in uranium exploration. Total exploration expenditures have climbed steadily from a low of \$7 million in 1972 to about \$50 million in 1978, with uranium exploration accounting for 75 per cent of the total.

The strong market for metals in combination with the low value of the Canadian dollar should provide an impetus to continued exploration and development, in spite of the constraints imposed by unsettled native land claims and the high costs of production. The importance of this sector on the medium term economic prospects cannot be understated. Potential for gold exists on the Controyto gold property at Echo Bay and for lead and zinc at Arvik on Cornwallis Island. The latter will require an investment of about \$150 million and create 250 jobs.

(b) Oil and Gas

A gas field located in the southwest corner of the Northwest Territories is in production and transmits gas to British Columbia. Oil from the Norman Wells field, at present the only northern oil field in production, is processed locally at a refinery operated by Imperial Oil Limited. Annual production is 159 million litres; recoverable reserves are estimated at 7.1 to 7.9 billion litres.

Oil and gas exploration activities have slowed down considerably in the Mackenzie area since the prospect of pipeline construction. Anticipation of the pipeline had brought an exploration boom in the early 1970s. Since the pipeline decision, seismic crew-months and expenditures have decreased along with expenditures for exploratory and development drilling. There is limited drilling in the Delta and offshore in the Beaufort Sea, and exploration activities are continuing in the Arctic Islands. The Beaufort, in particular, may receive additional attention because of the announcement this summer by some of a well with a flow of 1.9 million litres a day. Ongoing exploration and increasing energy prices enhance the viability of pipelines to service these finds. Projects in the early planning stages include the Polar Gas Pipeline. Alternately, Petro-Canada has filed formal application with the National Energy Board for a \$1.5-billion pilot project, to ship liquefied natural gas from Melville Island, and negotiations are underway with a potential major distribution of gas to consumers. Hearings into the application are scheduled for later this year. If approval is given to the project, and it is successful, commercial natural gas production from the northern Arctic can be expected.

(c) Tourism

The tourism industry in the Northwest Territories is underdeveloped. Growth in this industry has been hampered by poor accessibility and a lack of adequate tourist services and facilities. With the growing pressure for balanced socio-economic development, increasing consideration is being given to the role which the travel/tourism industry can play, particularly in terms of providing training and employment opportunities and diversifying local economies.

In the nonresident leisure segment, the Northwest Territories receive approximately 20 000 visitors annually. Growth has been a function of the supply of facilities, attractions and events. More recently, the promotion of Northwest Territories National Parks has attracted another group of leisure travellers -- travellers interested in outdoor and wilderness forms of recreation. It must be recognized, however, that this is a highly specialized and limited market.

The Government of the Northwest Territories, in conjunction with the Northwest Territories Travel Industry Association, the Department of Indian Affairs and Northern Development and the Canadian Government Office of Tourism, has undertaken a comprehensive assessment of the Northwest Territories travel and tourism industry. This will involve the preparation of an integrated tourism strategy, with a plan for the future development of the industry in the Northwest Territories. The study will examine all facets of the travel and tourism industry for the next five to ten years. A major tourism development effort is expected to be undertaken on completion of

the strategy and plan. However, the development of a major tourist industry in the Northwest Territories, comparable to government or mining in impact, is unlikely in the foreseeable future.

(d) Forestry

Softwood, primarily white spruce, is found along the Mackenzie and its tributaries. Growth is slow, replacement sometimes taking more than 100 years. Estimates of sustained yield are in the order of 118 million cubic metres annually.

Annual demand for lumber and piles within the Mackenzie region is estimated at 47 million cubic metres. Production by territorial mills is highly variable but remains, as it has since the 1950s, in the 2.35 to 14.1 million cubic metres range for lumber, and between 1.2 and 3.5 million cubic metres for piles. Quality has improved since the introduction of grade-stamping in the early 1970s, but local market penetration remains poor.

The opening of the Liard River Valley by the construction of a road from Fort Simpson, Northwest Territories to Fort Nelson, British Columbia, will provide the opportunity for a lumber industry with an output of some 12 to 24 million cubic metres annually. The production capacity will be strongly influenced by the results of a forest inventory which is to begin in 1979.

(e) Manufacturing

Small-scale manufacturing consists largely of government-operated projects and arts and crafts production. In 1978, the Government of the Northwest Territories operated 33 commercial and industrial projects, employing about 1 200 full and part-time workers. Projects included manufacturing operations such as sewing centres, fur garment shops, and a furniture plant, as well as retail stores and a laundry and dry-cleaning operation.

Impediments to expansion include a heavy dependence on southern markets and a disproportionately high overhead component in operating small manufacturing operations in remote areas. A lack of business organization and management skills may also restrict expansion by local businesses in this sector.

The manufacturing sector is expected to have little effect on the economy. There is some room for minor expansion to meet local demands, but the constraints on large-scale production are too great to permit the development of an export market.

(f) Service Sector

Services in smaller communities are provided largely through the Hudson's Bay Company or the cooperative movement and in larger centres by independent firms and chain stores.

Historically, the cooperative movement has been undercapitalized; it continues to depend heavily on imported management. Resupply is largely through sealift and requires access to heavy and costly inventory financing.

Given the isolation of the Northwest Territories, it is not surprising that the transportation industry is disproportionately important in its economy. In 1974, the industry paid well over \$12 million in wages and salaries alone. Northern Transportation Company Limited, the major barge operator in the Mackenzie River/Western Arctic area, provides employment for roughly 900 people for part of each year, although only 90 are permanent residents of the Northwest Territories. Union demands may preclude northern hire in the future.

The organization of the transportation and communications sector displays many of the characteristics of northern development today: direct participation by public sector enterprises; specialized expertise developed by small and medium-sized private firms operated by native businessmen; and direct dependence on major economic activity, public and private, for the bulk of sales.

Financial, professional, commercial and personal services are located in larger regional centres. The lack of immediate access to commercial banks, accountants, lawyers and other business support services in the smaller centres limit management capability in these communities.

Small expansion to serve limited local needs is likely to occur in the medium term. Significant expansion will depend directly on developments in the primary sectors.

2.4.2 Traditional Sectors

A concentrated effort for the development of intersettlement trade could serve to maximize the benefits available from this sector over the next five years. The fragility of the wildlife resource and a rapid expansion of the population will combine to limit the potential growth of land-based activities of this nature. Overexploitation, if permitted, will result in the narrowing of options available in the future.

(a) Trapping

Total trapping revenues in 1975-76 were \$2.7 million, down from a 1973-74 peak of \$3.1 million, or an average of \$800 per trapper. General Hunting Licence holders make up 10 per cent of the population.

Although it is difficult to determine exact numbers of full and part-time trappers, a significant portion of the

northern population derives economic as well as social and cultural returns from land-based activities. Returns from trapping remain an important component of cash income for many. However, the number of individuals and their families who can sustain themselves entirely from the proceeds of trapping is small.

The potential for expansion within the fur industry is limited. While the Northwest Territories fur-bearer populations are high, they are low in density and high transportation costs reduce profitability considerably. As the population grows, the pressure on fur harvesting to provide or supplement incomes will increase; at the same time the profitability of trapping can be expected to decrease in the absence of technological improvements. The dependence of the fur industry on a highly-volatile international market of primary importance as well.

(b) Fishing

Commercial fishing is centred on Great Slave Lake (principally whitefish), Cambridge Bay (Arctic char) and at a number of locations in the Keewatin and Baffin regions. In 1976, commercial fisheries in the Mackenzie Valley provided full and part-time employment for 125 fishermen and associated workers.

Modest potential exists to exploit local markets for fish production in the larger Northwest Territories communities. Expansion of commercial fishing for export is constrained by freshwater fish prices that remain low on a national basis. As northern commercial fisheries depend upon buoyant market conditions or subsidies to overcome transportation costs and diseconomies of small-scale activities, immediate expansion is not foreseen.

(c) Hunting

Subsistence hunting remains an important element of the traditional life-style and represents a major contribution to the local economy of many communities. In 1975-76, the reported harvest of game meat in the territories was some 1 528 875 kilograms. Actual kills are estimated to exceed reported kills by two or three times. Subsistence hunting can be expanded in some areas, but it would require monitoring to ensure that the annual harvest does not exceed sustainable yields.

3. DEVELOPMENT PROBLEMS AND ISSUES

In this section, these are discussed in the order of their relative importance in terms of their effect on medium-term development opportunities.

3.1 Constraints to Development

3.1.1 Native Land Claims

The unresolved native land claims issue and apparent lack of progress in negotiating settlements are imposing a serious impediment to economic expansion, particularly in the area of non-renewable resource development. The high potential for conflicting land-use requirements when settlements are concluded results in a reluctance by government to dispose of or otherwise commit land for development purposes. The controversy surrounding this situation and resulting uncertainty creates an atmosphere hostile to investment.

3.1.2 Infrastructure

The lack of regional infrastructure, particularly in the areas of transportation, communications and energy supply throughout most of the Northwest Territories, seriously affects the economics of development outside the established areas. Although the Northwest Territories have an abundance of mineral resources, including oil and gas, the cost of exploration, extraction and shipment to markets is prohibitive except in exceptional cases. The pipelines, roads and railroads necessary to exploit the resources of the Northwest Territories will involve investments of billions of dollars.

Over the last decade, the Government of the Northwest Territories has made significant progress in the provision of community infrastructure, with the result that the facilities in most communities exceed those in comparable areas in southern Canada.

3.1.3 Demographic Factors

The vast size of the territories combined with a population density of 0.91 persons per square kilometre is in itself a serious impediment to development. Lack of local markets, high transportation costs, lack of a local skilled labour force in any given location, lack of energy supplies and the myriad of other resulting problems make developmental activity expensive and risky.

Approximately 52 per cent of the residents of the Northwest Territories are people of Indian or Inuit ancestry. As in other parts of Canada, most of these people have been

by-passed by the mainstream of economic activity. This situation is compounded by the fact that many of these people, particularly the Inuit, live in communities where wildlife harvesting continues to be central to the economy. High birth rates and decreasing death rates are contributing to increases in population which are resulting in heavy pressures on the renewable resource base.

The rapid growth of the labour force argues for development of major employment opportunities. To date, however, residents of the smaller communities have had limited success in working on large projects. The vast distances, the scattered population and the limited transportation links are inhibiting factors. The tendency of employers to use established routes of southern hiring, and their need to keep operating costs down in an expensive area, militate against northern hire. Even when jobs are available, the land-based lifestyle of many northern residents dictates against remaining at job sites for their families for extended periods.

3.1.4 Social Conditions

Development in the Northwest Territories is hampered by social conditions, which, because of their severity and extent, may be more limiting than similar conditions elsewhere in Canada. The combination of the overall remoteness of the territory, the limited availability of amenities and the small and basically unskilled labour force often serves to limit possible investment opportunities.

3.2 Development Issues

3.2.1 Spin-off Effects

Most of the beneficial industrial and employment effects of any significant developmental activity are felt outside the Northwest Territories. Most production, particularly in the non-renewable resource area, is shipped to outside markets with little value-added accruing to the Northwest Territories. The majority of employees are recruited in southern Canada or from among people who have recently arrived in the territories. Similarly, spin-off benefits, such as in the service industries, are usually exploited by people who come to the territories in response to those opportunities. As a result, the long-term resident population, which is primarily of Indian or Inuit ancestry, continues to be by-passed by the mainstream of economic activity.

The structure of the economy is such that the employment multiplier of primary jobs to other jobs is small. In mining, it has been estimated by the Government of the Northwest Territories that one job creates between 0.3 and 0.6 jobs in the rest of the economy, when all effects have been taken into

account. This value is not unusual for mining towns in northern Canada. Government has an even smaller multiplier -- a job in the federal or territorial government creates between 0.1 and 0.3 jobs in the rest of the economy. The main difference between industry and government is that government to date employs more northern people than does mining, so that the addition of jobs in government tends to provide northerners with a choice of endeavour.

3.2.2 Land Use -- Traditional Versus Developmental

Since the traditional native economy can be seriously disrupted by large-scale development, considerable controversy surrounds land use. Opposition by some native groups to development is very strong throughout the Northwest Territories and will probably continue as long as land claims remain unresolved.

The land use questions implicit in unresolved native land claims are a brake on most kinds of development. There is also the vital problem of social development. The traditional economy carries with it certain cultural values which do not mesh well with an industrial economy. The traditional settlements tend to be more cohesive social units than are found in modern urban environments, and their members tend to be less mobile than their southern counterparts.

3.2.3 Competitive Position of Tourist Industry

The tourist industry is widely promoted by residents of the Northwest Territories as a major developmental opportunity; however, this must be viewed in the light of two major impediments: the high cost of transportation as a result of long distances without road connections; and the poor competitive position of the Northwest Territories in comparison to other remote areas such as Yukon and Alaska, which offer many more of the conventional tourist attractions.

3.2.4 Agriculture

There is some interest in the release of large tracts of land for agricultural use. Although there are large areas of Class 3 and 4 land in the southern Mackenzie area, the constraints imposed by climate, high production costs, high transportation costs, limited local markets and lack of infrastructure would appear to negate any attempt at commercial agriculture in the Northwest Territories. And again, any large-scale disposition of land for agricultural use could cause conflict with an eventual land claims settlement.

4. FEDERAL AND TERRITORIAL INSTRUMENTS

In addition to any economic development programs, the dominant role played by government in the economy of the Northwest Territories cannot be underestimated.

Government in the Northwest Territories includes the operations of 22 departments and agencies of the Government of Canada, the territorial government, and a structure of local governments in settlements, hamlets, villages, towns and one city.

Aggregate spending of these three levels of government on operations in the Northwest Territories was estimated at \$448 million in 1976-77, of which approximately 75 per cent was made directly in the Northwest Territories. Current expenditures on government services represented 47 per cent of gross territorial expenditures in 1974. Territorial and federal agencies employed some 5 950 workers in the Northwest Territories in 1976-77.

The impact of government activity on the economy in general is still greater than these numbers would imply. Development policy and regulation, together with the taxation, royalty and incentive framework, are predominant influences on the investment climate in the north today. Major infrastructure facilities and essential services are provided by three federal crown corporations: Northern Canada Power Commission, Northern Transportation Company Limited and Canadian National Telecommunications.

Government expenditures play a major role in NWT economic development: particulars of the major development programs follow.

4.1 Federal Instruments

4.1.1 Canada Employment and Immigration Commission

Because of the size of their expenditures in relation to the population of the Northwest Territories, the job creation programs of CEIC have a much greater economic effect than in southern Canada. Federal job creation programs have effectively become an employer in their own right, following government and mining as a principal source of jobs in the territories.

During 1977-78, projects approved under job creation programs in the Northwest Territories created employment for over 2 000 at a cost of approximately \$5 million.

4.1.2 Department of Indian Affairs and Northern Development -- Indian and Inuit Affairs Program

During 1977-78, the Economic Development Branch, working in cooperation with the Department of Regional Economic Development and Tourism of the Government of the Northwest Territories, issued direct loans totalling \$63 468. Loans for 45 Indian businesses approved under this program total \$1 546 000. Assistance was provided for infrastructure, management, technical and professional advice through contributions and grants totalling \$410 000. Projects vary from the development of a heavy construction company to loan-assistance for trappers.

4.1.3 Department of Regional Economic Expansion

In 1977, the Northwest Territories was designated as an eligible area under the Regional Development Incentives Act. Since then, five incentive offers have been accepted for grants of \$157 000 involving 32 jobs and capital expenditures of \$1 029 000.

4.2 Territorial Instruments

4.2.1 Department of Economic Development and Tourism

The Department of Economic Development and Tourism assists the people of the Northwest Territories in developing business, obtaining jobs and acquiring skills. In consultation with councils and special interest groups, it provides programs for workers and businessmen, encourages and promotes tourism and encourages the sale of products produced in the Northwest Territories.

The major activity of this department is the operation of commercial ventures to provide employment for residents. During 1978, a variety of projects provided about 1 200 full and part-time jobs, generating incomes totalling about \$2 000 000 for residents of the Northwest Territories.

As of March 31, 1977, \$3 054 000 had been placed on loan by the Northwest Territories Small Business Loan Fund. Control of the fund was assumed by the Northwest Territories Government on April 1, 1977, when the maximum loan was raised to \$100 000 with provision for guarantees.

The Northwest Territories Eskimo Loan Fund had a total of \$2 889 000 on loan as of March 31, 1977.

The Fishermen's Loan Fund assists Great Slave Lake fishermen in purchasing boats and motors through guarantees at local banks. Virtually all fishing boats on Great Slave Lake are financed through this fund.

For 1978-79, this department had a budget of over \$15 million.

4.2.2 Department of Natural and Cultural Affairs

Through the facilities of the Wildlife Service, support is provided to traditional resource harvesting activities. Programs include trappers' assistance and incentives, outpost camps, hunters and casual trappers' assistance, community caribou hunts and the fur marketing program. These programs are intended to ensure that all people who desire to do so are able to pursue their traditional land-based lifestyle.

Expenditures for 1977-78 amounted to over \$700 000.

4.3 Federal-Territorial Instruments

4.3.1 Special ARDA

The Canada-Northwest Territories Special Rural Development Agreement was signed in June 1977. To December 31, 1978, 55 offers of financial assistance totalling \$2 million were accepted, providing 67 person-years of employment and assisting 849 fishermen, trappers, and hunters under the primary producer component of the program.

4.3.2 General Development Agreement

The Canada-Northwest Territories General Development Agreement and Interim Subsidiary Agreement on Community Economic Development was signed on April 4, 1979. The subsidiary agreement provides for the expenditure of \$3.8 million on joint programs to assist in intercommunity trade and community economic development.

5. ECONOMIC DEVELOPMENT OPPORTUNITIES

5.1 Synopsis of Comparative Advantages

The Northwest Territories have a tremendous wealth of largely untapped natural resources, including minerals, forests, fresh water and recreational assets. The economy, however, is very narrowly based, economic linkages between sectors and between communities are poorly developed, and little value-added remains in the north.

Large-scale resource development activities in the Northwest Territories are important. These activities provide a considerable number of direct jobs and support a high proportion of the service sector of the territorial economy, providing considerable additional indirect employment. Recent experience has shown that a sensitive approach to such development can yield benefits for the communities and residents of the Northwest Territories through the creation of jobs and new, locally-controlled businesses in a manner which is in keeping with the residents' desires to maintain close contact with the land.

5.2 Specific Opportunity Areas

Mineral production dominates the private sector of the economy and will continue to do so in the foreseeable future. The vast uninhabited areas of the Pre-Cambrian Shield provide the largest potential for mineral development in North America. Furthermore, world movements of prices for hydrocarbons will enhance the viability of reserves at Norman Wells, Melville Island and in the Beaufort Sea.

Several mineral prospects are in an advanced stage of exploration and evaluation; however, no decision to proceed with the commercial development of any new mine has been made. If the most likely prospects are exploited, it is estimated that 400 to 700 new jobs will be created in new producing mines over the next five years.

Past experience has indicated that most new jobs will be taken by migrants from southern Canada and that most of the spin-off benefits will accrue outside the Northwest Territories. If most trends continue, these potential developments cannot be expected to contribute significantly to the employment opportunities for the 6 000 people who will leave school by 1985.

Oil and gas exploration in the Mackenzie Delta and Arctic Islands will continue. The pace may be retarded by the lack of access to markets and extensive discoveries in southern Canada and other more accessible parts of the world. The construction of a Dempster pipeline complementary to the Alaska Highway natural gas pipeline may offset these factors late in the decade.

The recent opening of the \$93 million Dempster Highway expands vistas for development. In addition to improving access to potential hydrocarbon reserves under Eagle Plain in Yukon, it also enhances access for suppliers to the Beaufort Sea. The construction of an all-weather road through the Liard Valley is in progress. The Prairie Creek lead-zinc deposit is located about 96.5 kilometres from the road project. Lack of transportation has been a major deterrent to development of this deposit and while this road will probably not in itself make the deposit economic, it will contribute towards bringing the deposit closer to being economically viable. In addition to lead and zinc there are also stands of commercial timber. A comprehensive inventory will be undertaken as a basis for planning utilization of this resource under the interim subsidiary agreement on community economic development. Preliminary indications are that the area can support production of 11 to 23 million cubic metres annually on a sustained-yield basis, supplying approximately 25 to 50 per cent of the requirements of the Mackenzie Valley area.

The forest industry in the Northwest Territories is, at present, comprised of several small, marginal operators, using uneconomical and largely unsuitable equipment. Research into the requirements for modernization and rationalization of existing operations is necessary.

Small-scale manufacturing consists largely of heavily-subsidized government-operated projects producing traditional products such as parkas, fur garments and arts and crafts objects. The lack of local markets and a skilled labour force together with the high transportation costs to outside markets are expected to impede further growth in this area.

Expansion in the service sector is largely dependent on two factors: activity in the primary sector, principally mining; and the improvement of economic linkages within the Northwest Territories.

Construction is largely dependent on government expenditure. The current restraint situation is seriously affecting this sector.

During the next five years, the federal government and the British Columbia government will complete the construction of the Liard Highway, and thus provide a direct road link from Fort Simpson to the southern highway network at Fort Nelson on the Alaska Highway. The Liard Highway now extends 48 kilometres up the Liard Valley from the Mackenzie Highway near Fort Simpson. The Northwest Territories portion will follow the valley to Fort Liard and south to the British Columbia border at the Petitot River. Highway construction at a cost of \$40 million will provide 200 jobs in 1980-81 when the height of activity is

expected. During each of the remaining four years, about 100 men will be employed on highway construction.

5.3 Potential For Government Action

5.3.1 Planning

A comprehensive assessment of the economy of the Northwest Territories is necessary. The examination of various opportunities in light of constraints and prospects for future development is a key element in preparing a long-term approach to development. This approach can provide the basis for subsequent sector and government actions.

Development planning should consider not only all the sectors of the economy, but also the needs and aspirations of all groups residing in the territories. The analysis should identify, with full participation of residents, the resources available and the methods for implementing proposed programs; and it should include appropriate incentives for residents to undertake training programs to open up their choices and opportunities to participate in economic development fully. This will contribute towards a sound basis for future investment and decision making.

Increased interaction among residents of northern communities affected by development activities and the agents responsible for these activities is required in order to maximize the local benefits of development. Providing a forum for local people so that they can participate in identifying, assessing, planning and realizing the economic opportunities which are in keeping with their own aspirations will provide a solid community base for development activities.

The preparation of this approach is contemplated under the Interim Subsidiary Agreement on Community Economic Development.

5.3.2 Interim Action

Pending preparation of the long-term approach to economic development, the following policies could be considered to assist development in the short and medium term.

(a) Development of Economic Linkages

Intersectoral linkages are seriously underdeveloped and may provide one of the most significant opportunities for development which will be of primary benefit to local people. The major spin-off benefits of development in the Northwest Territories to date have accrued to other parts of Canada.

Affirmative action programs could be expanded to provide people of Indian and Inuit ancestry with real choices between the traditional and wage/entrepreneurial sectors, or some combination of the two, after due consideration to the fragile wildlife base and to good conservation practices. These programs can play a major role in the development of intersectoral linkages.

The development of intercommunity linkages within the traditional sector through such activities as intersettlement trade can also play a major role in enabling residents to maintain a life-style in keeping with their needs and aspirations.

Incentive programs, designed to assist the service and tertiary sectors of the modern economy, do not appear to warrant expansion for the time being. Additional programs of this type may tend to negate the affirmative action effects of programs directed to the traditional sector, thereby prolonging the conflict between the two major economic sectors.

(b) Resource Development

The expansion of the non-renewable resource sectors must be encouraged by government policy, as this is the only area with the potential to provide the number of jobs that will be required over the medium term.

(c) Infrastructure

The provision of infrastructure is a critical link between the public sector and the major resource development sectors. Industrial and commercial developments often cannot take place, particularly if northerners are to benefit economically, without substantial investments in infrastructure -- transportation, communications and other physical facilities; training, counselling and other supporting social programs. Government infrastructure has played a crucial catalytic role in the past, by underwriting basic research and survey work, liaison and education of the labour force as well as providing major shipping and communications links. At the same time, such infrastructure installations have provided direct social benefit spin-offs for northern communities.

6. SUMMARY AND CONCLUSIONS

The physical and social differences among regions of the Northwest Territories suggest that a variety of approaches may be required to promote development: an emphasis on traditional activities, training and work rotation where the economic base is limited and previous exposure to wage economy minimal; development of a transportation infrastructure to support development where major resource development potential occurs; and strengthening of the local economy where major income and population centres now exist.

The territorial economy has a unique duality. There is a developing modern economy based on government and mining which, in terms of its effects, is concentrated in the larger centres, but there are significant leakages from these sectors to southern Canada. This is particularly evident in mining, as the service infrastructure is undeveloped in the territories. The traditional economy of hunting, fishing, and trapping is crucial to many small settlements.

The major factor in development for the Northwest Territories will be the linking of the modern economy and the traditional economy without destroying the latter and eliminating one of the options presently available to residents. A start has been made on this linkage, on the basis of the seasonality of the traditional economy. Several mines, for example, employ native people on a rotational basis, providing seasonal wage employment yet leaving residents free to pursue the traditional activities as well. However, there are many intangibles in the economic development of the territories; the conflict between the two major economic sectors is only the most obvious.

