TRADITION AND CHANGE

A Strategy for Renewable Resource Development In the Northwest Territories

Department of Renewable Resources
Government of the Northwest Territories

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1.0 Introduction

Renewable resources are an integral part of the economy, culture and social fabric of the aboriginal and non-aboriginal residents of the Northwest Territories. Renewable resources contribute significantly to the northern economy by providing food, raw materials for clothing, crafts and shelter and recreational opportunities.

Renewable resource management contributes to the process that directs the use of renewable resources through planning, conservation education, resource assessment, resource allocation and enforcement of regulations to achieve sustainable yields and the protection of the environment. The management and protection of renewable resources is part of the mandate of the Department of the Renewable Resources, Government of the Northwest Territories.

1.1 The Role of Renewable Resources in the NWT Economy

The value of renewable resources in the economy of the NWT is estimated at $55 to $60 million annually.

Renewable resources are harvested as raw products such as fur, timber, firewood, fish, country foods and agricultural produce. They are also manufactured into products for use in the NWT and for export. Renewable resources are:

- A source of subsistence and a substitute for imported goods in NWT communities;
- A continuing link for aboriginal people with their culture
- A source of cash income.

Harvesting of renewable resources for domestic use is the largest economic activity undertaken by aboriginal residents in the NWT. Over 70% (5,200 households) of all aboriginal households hunt or fish and nearly 25% (1,600 households) trap. More than 90% of aboriginal households consume country foods obtained by harvesting.

1.2 Benefits From Harvesting

- Wage employment from harvesting fur, fish, country foods, forest products and agricultural produce;
- Non-cash benefits including clothing, country foods, shelter and fuel wood;
- Important source of raw materials for the arts and crafts industry.
- As well as providing lifestyles that are the basis of our northern cultures, harvesting renewable resources provides employment. Most employment is seasonal and includes almost 1,000 men and women catching or processing fish, at least 200 sport fishing guides, 170 seasonal forest fire management employees with 400 or more extra fire fighters a season, a minimum of 1,500 trappers, 400 licensed guides for muskox, polar bear, barrenground caribou and wood bison hunts and 300 employed cutting firewood, cutting or processing sawtimber or conducting forest management programs.

Job creation is a priority of our government. Potential exists to increase the number of jobs in all sectors of renewable resources development. Some of the prime opportunities for job creation from renewable resource development relate to commercial harvesting and retailing of country foods.

1.3 Interventions and Initiatives

The GNWT Economic Development Strategy (February 1990) is an important framework for the Renewable Resource Development Strategy. The Economic Development Strategy framework has three objectives:

- Reduce disparities in employment between and within communities and regions;
- Strengthen the economy through growth and diversification;
- Ensure northerners receive a greater share of the benefits of economic development.

The Renewable Resource Development Strategy promotes economic self-reliance, local employment opportunities and local influence over the pace of development. The emphasis is on identifying and supporting sustainable opportunities with local benefits.

2.0 Our Purpose

2.1 Our Responsibility

- To manage and encourage the sustainable use of wildlife and forest resources;
- To provide environmental protection measures and planning for land and water use to support the renewable resource economy;
- To ensure that the interests of the Government of the Northwest Territories and northern people are represented in all renewable resource sectors.

2.2 Our Goals

- Protect and enhance the quality of the environment
- Manage and develop renewable resources on a sustainable basis to benefit present and future generations of northerners;
- Manage renewable resources through public input and scientific and indigenous knowledge.

2.3 Purpose and Objectives of the Strategy

- To provide a coordinated, long term approach to the wise use and management of renewable resources, and the environment;
- To ensure that the resources contribute to social and economic well being.

The Strategy outlines the Department's goals for renewable resource development, sets out objectives and describes initiatives to accomplish these objectives for the period 1993-94 to 1995-96.
The intent is:

- To encourage and support opportunities which maintain a traditional way of life;
- To facilitate subsistence and commercial renewable resource development with emphasis on communities where subsistence harvesting is important.

2.4 An Integrated Approach

Integrated resource management identifies and considers all resource values including social, economic and environmental needs in arriving at decisions for resource use. There are two approaches to a resource management system; one that seeks to control and another which seeks to facilitate. A system that responds to demands for socio-economic change and is founded on the principles of conservation and the maintenance of high environmental quality must strike a balance between these two approaches.

The Renewable Resource Development Strategy is one of several tools required to achieve the sustainable development of renewable resources. The other tools are:

- Renewable resource, land and water use policies;
- Resource inventories and measures of resource productivity;
- Regional land use plans;
- Environmental management policies;
- Sectoral management plans;
- Regulatory and monitoring framework.

2.5 Resource Management Philosophy

Wise resource management is based on the principle of sustainable development which is a balance between conservation and development. Effective management includes appropriate development of renewable resources and also protection of their environment. The Department's position is to use the renewable resource base to pursue broader government objectives of enhancing community self-sufficiency and contributing to local economies while maintaining biological diversity and environmental integrity.

The management philosophy recognizes that the resources are dynamic and their availability may change through resource productivity, increased knowledge (western scientific and indigenous) and expanding (appropriate) technology, as well as changing individual and societal needs. We must also recognize that our natural resources have a unique heritage value and we hold them in trust for the future.

2.6 Principles of the Strategy

- Renewable resource development is an important aspect of a balanced economy in the Northwest Territories;
- Initiatives will be consistent with aboriginal claim agreements which relate to conservation, development of renewable resources, and the environment;
- The GNWT will promote renewable resource development which allows sustainable harvesting of resources and maintains ecological processes and biodiversity;
- Commercial development of renewable resources will be encouraged where resources are surplus to domestic needs;
- Use of renewable resources will be guided by established resource management principles and indigenous knowledge;
- Local efforts to initiate and develop effective use of renewable resources will be encouraged;
- Northern residents will be assured of being able to participate in conservation and resource development decisions. Jobs, training and business development will be pursued to ensure benefits for northerners.
- Renewable resources development decisions will combine and weigh conservation and development factors.

3.0 The Renewable Resource Development Strategy

3.1 Development Potential

The tremendous potential of renewable resource development can be realized through:

- Import substitution;
- Increased efficiency;
- Increased production;
- Adding value through processing.

3.2 Constraints to Development

- Information gaps (technology; market research; inventory analysis);
- Lack of external markets;
- Limited participation of northerners;
- Ineffective harvesting techniques and equipment;
- Under-use of resources;
- Inadequate transportation infrastructure and high costs;
- Short seasons and harsh climate.

The Renewable Resource Development Strategy addresses the obstacles through annual Action Plans which will deal with constraints on specific sectors. Two committees will address constraints that are common to most of the sectors.

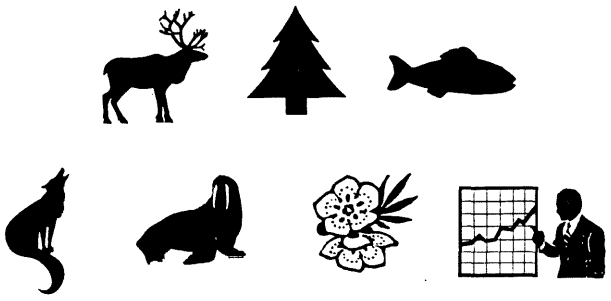
Interdepartmental Committee on Renewable Resource Development

Representatives from the departments of Economic Development and Tourism, Health, Social Services, and Education, and Culture and Employment will serve on this committee whose purpose is to strengthen the link between renewable resource analysis, management and development. The Department of Renewable Resources will chair the committee.

Demonstration Project Fund Committee

This committee will help experimental renewable resource development in communities. The fund will provide opportunities for projects that:

- May be marginally profitable but could contribute to the local economy by providing seasonal employment, cash for harvesters, or access to renewable resources;
- Provide a return to harvesters or other NWT residents; are supported by the community; satisfy a need; or identify new opportunities;
- Could, with assistance, be developed to the point where a favourable application could be made to other major programs such as the Economic Development Agreement for a feasibility study or a full-scale operation.



Renewable Resource Sectors

4.0 Wildlife

4.1 Overview

Residents of the Northwest Territories traditionally used wildlife for food, clothing and cultural needs. Socio-economic change in the Northwest Territories is now shifting the use of wildlife to include commercial harvesting and tourism. This trend parallels renewed and greater use of local wildlife resources to decrease dependence on imported food and to provide economic opportunities for communities. As pressures for greater use of wildlife increase and as remote communities develop closer links with the rest of the world, wildlife management will require a more integrated resource management philosophy.

Many wildlife populations in the Northwest Territories could be harvested more heavily without exceeding sustainable yields. However harvests must be based on reliable information. Expanded use of wildlife must proceed with a realistic knowledge of the opportunities and constraints of working with wildlife.

Where there is opportunity to harvest more intensively, there must be a balance between subsistence/recreational use and commercial harvests. Socio-economic and ecological considerations will require consultation between managers and community residents to achieve a blending of western scientific and indigenous knowledge. Co-management agreements between communities and government are in place for some wildlife populations. The implementation of further land claims will lead to more agreements which will define the shape of wildlife management in the future.

4.2 Actual /Imputed Value

The greatest quantifiable value of wildlife to residents of the Northwest Territories is as food. Without wildlife, a minimum of $37 million of additional imported food would be required annually. In addition, $2 million from outfitting adds significantly to local economies. Cultural views and ideas are often intangible but, nevertheless, assign high value to wildlife.

Wildlife also has value as international symbols. For example, three-quarters of the muskoxen in the world, and more than half the polar bears are in the Northwest Territories, and their management attracts world attention. The world also sees the Northwest Territories as one of the last wilderness refuges for grizzly bears, wood bison, wolves, and caribou. International agreements on Porcupine caribou, polar bears, migratory birds and waterfowl are another aspect of international influence on local wildlife management.

4.3 Sector Objectives

- To ensure the viability of all wildlife populations in their natural habitats.
- To encourage the wise use of wildlife populations and ensure that harvests are within the limits of sustainable yield.
- To encourage northern residents to participate in wildlife management.
- To manage species for which there is a harvest demand, such as caribou, muskoxen and polar bears, and species which face particular problems such as Peary caribou, peregrine falcons and wood bison.
- To determine the habitat requirements of wildlife, and to safeguard the integrity and capability of ecosystems to support wildlife.
- To maintain goals that are compatible with the International Convention on Biological Diversity ratified by Canada in December 1992. Implementation of the goals will be guided by the Convention's objectives on maintaining functional integrity of ecosystems through area protection, sustainable use, research, and respect and support for indigenous lifestyles.

- To incorporate traditional information into wildlife management programs. Users must also consider the scientific information presented by management agencies. The Department recognizes that subsistence use of wildlife has priority and that not all users may want to engage in commercial activities. If however, commercial use of wildlife resources is desired, then the Department will assist in its development.

4.4 Proposed Initiatives

Potential for Development

Where current harvest levels are within the limits of sustainable yield and there is co-operation between managers and users, expanded use of wildlife resources can be explored. One possibility is to promote fuller use of existing commercial harvest quotas by exploring markets and finding potential sales.

Value can be added to wildlife products through additional processing such as packaging meat and converting hides, wool and antlers into moccasins, sweaters, and carvings.

Proposed Initiatives

- Ensure all wildlife harvests are within sustainable limits supported by acceptable levels of precision and accuracy.
- Begin detailed reviews and comprehensive assessments of wildlife development projects, considering ecological and socio-economic implications.
- Encourage inter-community agreements to give users more responsibility for wildlife management by allocating shares of the harvest, and increasing the access to meat, outfitting, and tourism markets. Although these ventures are not restricted to land-claim beneficiaries, users will retain the right of first refusal.
- Assist in implementing conservation education programs to inform and educate people about management techniques and about harvesting methods acceptable to consumers
- Encourage non-consumptive use of wildlife through regional pamphlets on wildlife watching opportunities and promotion of local tour businesses which emphasize wildlife viewing.

4.5 Constraints to Development

- Limited funds and human resources;
- Uncertain markets;
- Cyclical and fluctuating supplies;
- Variable harvesting and processing techniques restricting the export of game meat;
- Environmental and animal rights groups;
- Regulations and restrictions from other jurisdictions.

5.0 Forests

5.1 Overview

The Northwest Territories has extensive forests, yielding many benefits and products, including jobs and sustainable economic opportunities. Northern residents use the forests to meet their needs for food, clothing, building materials, fuelwood, furs and recreational opportunities.

Northern forests are also critical habitat for fish and wildlife resources and provide important benefits through such traditional activities as subsistence hunting and trapping. Forests are woven into the spiritual, cultural and social fabric of aboriginal residents. In addition to the aesthetic qualities of northern forests which provide recreational activities and tourism opportunities, benefits are derived from forest research and scientific programs.

Of the total area of the NWT, 61.5 million ha or 18% is forested land. While only 23% of the forested land (14.3 million ha or 4% of the total land base of the Northwest Territories) is considered to be commercially productive, from a timber harvesting perspective, the full value and importance of forests and forest resources is significant.

The Department of Renewable Resources assumed responsibility for forest and fire management in the Northwest Territories in April 1987. In January 1992, a five year Canada/Northwest Territories Cooperation Agreement in forestry was signed with Forestry Canada to facilitate a cooperative approach to forest management and development in the NWT.

Commercially significant forests are concentrated in the valleys of the Liard, Hay, Slave, and Mackenzie Rivers and the Cameron Hills. The gross merchantable volume of timber in these areas is estimated to be 446 million cubic metres (m3) of which 70% is coniferous species. The predominant species are white and black spruce, jack pine, poplar and aspen. Wood products include milled lumber, round logs for housing, construction and mining timbers, poles and posts, and fuelwood.

To ensure sound resource management, decisions on forest management will be based on the social, economic and environmental needs and objectives of the people of the Northwest Territories.

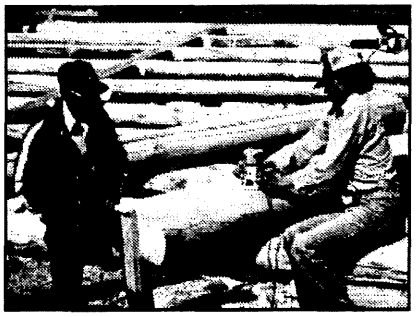
Forest fire management is concerned with the protection of people, property and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives. Forest fire management practices are conducted in a manner that considers environmental, social and economic criteria.

5.2 Actual/Imputed Value

The allowable annual cut (AAC) in the Northwest Territories (i.e. the volume of wood available for harvest annually on a sustainable basis) is presently calculated at 200,000 m3/year of sawtimber. The harvest in 1990 was 45,000 m3 for all uses (sawtimber, roundwood, fuelwood), or 22.5% of the forest capacity for sawtimber.

The NWT uses an estimated 112,000 m3 of lumber per year. It currently produces about 26,000 m3, valued at about $3.1 million, or approximately 24% of the demand, with the remainder being supplied by southern Canada. Commercial use of forests is declining with less than half of the AAC being harvested each year.

With the increase in lumber prices during the first quarter of 1993, there has been increased demand for forest resources in the NWT.



The value of lumber produced in the NWT declined from $2.2 million in 1980-81 to $1.1 million in 1991-92. The quantity of lumber produced declined from 40,000 m3 in 1982-83 to 26,000 m3 in 1990-91. The value of fuelwood decreased from approximately $2 million to less than $1 million over the same period.

The sawmill at Hay River was the only commercial mill in regular operation in the NWT until the sawmill in Ft. Resolution re-opened in 1993. There are several other small portable mills in other NWT communities. These operations have increased the timber harvest in 1993-94 to 90,000 m^3 with an economic value of $14 million.

The forest fire management program is currently the major program in this sector. In 1992, $2.4 million was awarded in contracts related to the provision of fire crews, $3.7 million was spent on wages for 170 seasonal jobs and $375,000 in wages for 700 temporary people. An additional $7.0 million was spent on aircraft and other fire related contracts services in 1992-93.

5.3 Sector Objectives

- To ensure sound stewardship of our forest resources, decision-making will be based on the social, economic and environmental needs and objectives of the people of the Northwest Territories. Through integrated and cooperative resource management the Government of the Northwest Territories will seek to manage territorial forests giving consideration to the following resource values:

- Timber for commercial harvesting
- Cultural, heritage, spiritual resources
- Community forests
- Country foods
- Fish and wildlife habitat
- Fur industry
- Recreation
- Soil conservation
- Tourism
- Water quality

Integrated resource management means that when a management decision is required where one or more of these values is affected, all others must be considered. Circumstances will likely vary from time to time and place to place, resulting in shifting emphasis from some values to others.The main considerations in where to place the appropriate emphasis are the health and sustainability of the forest, and the needs and objectives of northerners. Consultation and participation are critical components of this process.

- Finalize the Forest Management Policy to facilitate integrated resource management.

5.4 Proposed Initiatives

Potential for Development

The forests of the Northwest Territories are an under-used resource. The approximately 14.3 million ha of productive forest land in the NWT is more than sufficient to meet current demand. In the relatively accessible timber stands of the Liard Valley, Cameron Hills and Fort Resolution areas, there is a potential annual harvest in excess of 150,000 m of sawmill timber with approximately 172,000 additional m of hardwoods available. The harvest for all forestry uses (sawtimber, round wood and fuelwood) is generally under 50,000 m/year. These statistics show that NWT forests can withstand considerably more development while maintaining sustainable harvest levels.

Replacing imports of wood products to the NWT is a major development opportunity. As mentioned, the NWT currently produces 24% of the demand with the remainder being supplied by southern Canada. The value of the untapped potential for NWT forests may be in excess of $6.4 million per year.

Proposed Initiatives

- Resource Inventory Program: includes collecting information on various renewable resources for the purpose of preparing management, harvest and community protection plans.
- Integrated Resource Management: plans will be prepared to address resource development potential and minimize land use conflicts.
- The Silviculture Program: site preparation will be carried out on most areas that are harvested and these areas will be seeded, planted or left to regenerate naturally. Stand tending will be carried out on areas to control competition or to release trees by thinning.
- Liard Valley Demonstration Proposal: This project is designed to demonstrate various harvesting, site preparation, reforestation and stand tending techniques. It will also identify potential opportunities for local people and companies and provide training and public education.

Forest Research: Research on growth and yield, fire, forest wildlife, insects and disease and silviculture will be done in selected areas.

Canada/NWT Cooperation Agreement in Forestry (Forestry Agreement): The Forestry Agreement is a five year cost-shared program which runs to 1995/96.

The programs under this agreement include:

Reforestation on Crown Land;
Technology Transfer;
Forestry Research, Development and Demonstration;
Management Planning and Resource Data;
Public Information and Education.

5.5 Constraints to Development

- Insects and disease;
- Forest fires[1];
- Lack of inventories of NWT forests;
- Lack of supply and service infrastructure;
- Lack of investment capital for starting forestry operations;
- High transportation costs.

[1]Fire is a significant and natural phenomenon in the forests of the Northwest Territories. Forest fires may be a constraint from a commercial forest harvesting perspective.

6.0 Fisheries

6.1 Overview

The Department of Renewable Resources administers sport fisheries, participates in the management of freshwater and marine fisheries in the NWT and monitors the harvest. However, the Department of Fisheries and Oceans (DFO) of the Government of Canada is ultimately responsible for the management of these fisheries. Renewable Resources management participation includes membership in various committees, councils, workshops and other meetings ranging from technical, policy and sectoral management interests.

Under agreements with DFO, the Department of Renewable Resources is responsible for:

- The administration of sport fishing licences;
- Enforcement of sport fishing regulations;

Freshwater fisheries in the NWT support subsistence/domestic use, sport fishing and commercial fishing. Many aboriginal families partake in subsistence fishing for food, traditional use, and cultural values. Sport fishing is practised by residents of the NWT and is a tourism attraction for nonresidents. Commercial fishing is practised by aboriginal fisherman on a small to medium scale and by aboriginal corporations on a large scale in the offshore.

Marine fisheries include subsistence and commercial fisheries. Subsistence fisheries are fished for arctic cod, greenland halibut, herring, cisco, scallops and clams. Commercial fisheries presently include shrimp, greenland halibut, silver hake, and mackerel. Known and potential commercial fisheries include both ring and harp seal, herring, cisco, kelp, scallops, whelks, crab, squid and grenadier.

6.2 Actual/Imputed Value

The greatest value of freshwater fisheries to residents of the Northwest Territories is as food. There are no reliable estimates as of the monetary value of the subsistence fishery. The total commercial value of the fisheries sector (including shrimp) is estimated at $6.5 million.

In 1991/92 approximately 7,000 resident licences, 5,000 non-resident licences and 2,600 non-resident alien licences were sold for sport fishing. There are no figures for aboriginal sport fishing which is unlicensed. There were 43 licensed sport fishing lodges in operation in 1991/92 and about 90 licensed individual fishing outfitters. The annual revenue from paying guests is in excess of $3 million.

There are two well established commercial freshwater fisheries in the Northwest Territories - the Great Slave Lake fishery and the Cambridge Bay char fishery. Production of commercial freshwater fish is estimated at about 1,500 tonnes/year with a value of $2.25 million. There are numerous small scale, seasonal commercial fisheries in most communities in the NWT. Some secondary processing, i.e. smoked and dried fish, jerky, cutting and packaging, takes place within communities.

Marine commercial fisheries allocations in the Northwest Territories in 1992 were:

Greenland Halibut (Inshore).....1000 Metric Tonnes
Greenland Halibut (Offshore).....2000 Metric Tonnes
Silver Hake (Offshore).....2500 Metric Tonnes
Mackerel (Offshore) .....1000 Metric Tonnes
Shrimp (Offshore).....2475 Metric Tonnes
Scallops (Inshore).....upon application for exploratory permit

Northern people benefit from the fishing industry through:
- royalties from companies with fishing allocations;
- employment and training in the shrimp industry;
- employment in exploratory fisheries through government and industry funding.

6.3 Sector Objectives

- Clarify the GNWT's mandate with regard to departmental responsibilities for freshwater and marine fisheries;
- Continue management programs of commercial test fisheries and fish stocking in the southern Mackenzie Valley;
- Continue to participate on various committees such as the Great Slave Lake Advisory Committee and the Great Bear Lake Management Committee;
- Develop a Northwest Territories inland fisheries management policy and inland fisheries management plan;
- Conservation of fishery stocks.
- Represent the GNWT in managing and regulating marine fisheries;
- Maintain the NWT's role in developing arctic fisheries through representation and lobbying.

6.4 Proposed Initiatives

Potential for Development

- Freshwater test fisheries - testing lakes or rivers for their commercial potential;
- Exploratory fisheries - searching for commercial fish potential in the ocean;
- Harvest monitoring of fish, marine mammal or marine life: data and sample collection, patrols, receipt and issuance of licences and permits, public relations and information and research.

In 1992 two exploratory fishing expeditions were conducted with funding from the Economic Development Agreement in the Baffin and Keewatin Regions. Funding for exploratory fisheries will likely continue under this program for the next four years. This could result in additional viable commercial fisheries.

Proposed Initiatives

- The Department of Economic Development is reviewing the management of the Great Slave Lake fishery. Recommendations will be implemented where appropriate;
- Monitor fish stocking programs in lakes near highways and accompany this with a public information program;
- Encourage catch and release program for fish in the NWT. The public will be consulted about regulations for the mandatory use of barbless hooks;
- Continue to work with Fisheries and Oceans Central and Arctic Region to promote management, scientific research and data collection in the Northwest Territories;
- Consult with government, land claim institutions, industry and fishermen to undertake regional initiatives which maximize benefits and northern participation;
- Support new exploratory fisheries, markets, research, allocations, and developments within the limitations of sustainable yield;
- Monitor and lobby DFO's reform process to ensure fair and equitable representation and participation of northern interests.

6.5 Constraints to Development

- Lack of baseline data for all freshwater and marine species;
- Economic recession affecting tourism and disposable incomes reflected in the decrease in sales of Sport Fishing Licences;

Constraints to freshwater commercial fisheries:

- Lack of markets;
- High transportation costs;
- Low fish prices;
- Lack of processing infrastructure;
- Outdated technology;
- Poor quality control and training;
- High capital costs.

Constraints to marine fisheries:

- Lack of long-term planning for marine resources discourages capital investment;
- Lack of training and lack of experienced fishermen;
- Lack of processing infrastructure;
- No clear lead department in the GNWT and the fact that the Department of Fisheries and Oceans is based out of the NWT.

7.0 Fur

7.1 Overview

The Government of the Northwest Territories (GNWT) has provided support to the fur industry for many years. It provides financial assistance to trappers and has also given financial support to lobby and industry groups such as Indigenous Survival International and the Fur Institute of Canada. In keeping with international efforts to adopt humane trapping standards, the GNWT has been at the forefront of jurisdictions by introducing new humane trapping techniques.

The Department of Renewable Resources has the authority for fur management in the NWT pursuant to the Northwest Territories Wildlife Act. The Department provides the following services to develop the fur industry:

- Trapper education programs;
- Trap exchange programs;
- Identification of potential trapping areas;
- Administration of a fur marketing service;
- Trappers' incentives;
- Fur subsidy program.

The fur industry has excellent historical records to monitor trends in harvest levels and values and trapper participation. Over the past five years NWT fur records show a decline in revenue and in the number of people harvesting and selling fur. The annual value of furs sold has decreased over 70% from $6.1 million in 1987/88 to $1.5 million in 1993.

The Department of Renewable Resources has responded by developing a comprehensive NWT Fur Strategy to promote a stable and expanded fur industry in the NWT.

7.2 Actual/Imputed Value

Although the value of the fur harvest in the NWT has declined by over 70%, the NWT share of wild fur harvest in Canada has increased from 4% to almost 12%. The NWT can now be classified as a significant supplier of raw fur in Canada.

7.3 Sector Objectives

Develop a comprehensive NWT Fur Strategy which will include:

- Promoting fur harvesting in the NWT;
- Enhancing wild fur sales;
- Stabilizing trapper incomes;
- Identifying and encouraging viable fur and leather manufacturing options;
- Reviewing the current demand for fur garments and accessories; and
- Collecting data on fur harvest and harvesters;

7.4 Proposed Initiatives

Potential for Development

Productive furbearer populations and the unique characteristics of northern fur provide an excellent opportunity for the NWT to become a leading international supplier of high quality wild fur.

Proposed Initiatives

- Determine how the NWT can improve its position in the international auction house system;
- Determine ways to stabilize fur prices;
- Identify fur and leather manufacturing options and facilities;
- Review the demand for fur and leather garments and accessories manufactured in the NWT;
- Work cooperatively with other departments and agencies to develop guidelines for the management of wastes from fur production facilities.

A data base is being compiled to determine why people are or are not trapping. The information will also be used to set up training programs for trappers and encourage trapping.

Through the "Trapper's News" and first-time trapper courses, the Department provides information about changes in the fur industry and how to receive the highest price for fur.

7.5 Constraints to Development

- A decrease in fur prices causing a decline in the number of trappers in the NWT;
- Small, isolated and underskilled labour pool;
- Distance from production site to markets;
- Competition from fur ranches.

8.0 Marine Mammals

8.1 Overview

Marine mammals which inhabit areas and oceans adjacent to the Northwest Territories are:

- polar bear[1]
- seals (ringed, bearded, harp, hooded, and harbour)
- walrus
- small toothed whales (beluga, narwhal)
- killer whale
- large baleen whales (bowhead)

The Department of Fisheries and Oceans (DFO) is responsible for their management under the Fisheries Act. Renewable Resource Officers are appointed under the Fisheries Act to assist DFO with enforcement.

Canada withdrew from the International Whaling Commission (IWC) in 1981 over management of small whales, including beluga and narwhal. As a result DFO is responsible for setting harvest quotas. In 1992, the NWT Legislative Assembly unanimously passed a motion that Canada not rejoin IWC and continue its program of managing marine mammals only with those countries that share the resources.

DFO sets harvest quotas for walrus, beluga, narwhal, and bowhead (beluga and narwhal may only be harvested for subsistence purposes). Hunting of killer whale, and bowhead whale in the Eastern Arctic, is prohibited. There is no limit on the harvest of seals by aboriginal people for subsistence, although the hunting of seals for commercial reasons has declined significantly because of extraterritorial legislation (U.S.A. Marine Mammal Protection Act (MMPA), European Economic Community (EEC) ban.

The reduction in demand for seal skin products has amplified economic and social problems for aboriginal people. Nevertheless, outfitting and the sale of sealskins and polar bear hides, where permitted, can still provide significant additional income to hunters and their families.

Walrus are found primarily in the Foxe Basin and northern Hudson Bay. An aboriginal person may hunt up to four walrus each year. Beluga are harvested without quota restrictions everywhere except the South Baffin. In 1991, a quota of one bowhead whale for subsistence purposes was established for the Beaufort Sea area.

8.2 Actual/Imputed Value

No recent population surveys have been done for NWT marine mammals and limited information is available on harvest numbers. Actual/imputed values are estimated at $5.2 million. The use of marine mammals is also important for subsistence purposes, although values cannot be determined at this time.

[1]Polar bears are included in this listing although they are wildlife as defined in the NWT Wildlife Act; therefore the Department of Renewable Resources is responsible for their management. Polar bears are marine mammals under the United States Marine Mammal Protection Act. For the purpose of this Strategy, Polar bears are included in the Wildlife Sector because of management commitments and requirements.

8.3 Sector Objectives

- Assist in the management of the marine mammal population to ensure that marine mammals are harvested within the limits of sustainable yield;
- Maintain and preserve natural habitat;
- Encourage participation of northern residents in management of marine mammals;
- Pursue and enhance markets for marine mammal products.

8.4 Proposed Initiatives

Potential for Development

There is potential for development of marine mammal management in the following areas: food for humans and dogs; clothing; sale of hides; leather products; arts and crafts; and tourism.

Proposed Initiatives

The Department will concentrate on assisting communities to harvest marine mammals within the limits of sustainable development.

- The Government of the Northwest Territories Department of Renewable Resources will seek greater responsibility and a wider mandate for management of marine mammals;
- The Department will begin a program of community consultation and surveys to ascertain the need for and use of marine mammals;
- The Department will approach federal agencies (i.e. DFO) to initiate species studies, based on need and existing knowledge.

8.5 Constraints to Development

- No population statistics of most marine mammals;
- United States MMPA prohibits the import of marine mammals or products from marine mammals into the United States;
- Ban on the import of sealskins and sealskin products to European Economic Community countries;
- Fleshing machines are needed for preparation of sealskins for leather products;
- Inefficient hunting techniques;
- Animal rights groups;
- International Whaling Commission.

9.0 Agriculture

9.1 Overview

The development of agriculture in the Northwest Territories began in the 17th century when missionaries and fur traders in the MacKenzie River Valley planted small plots for vegetables and raised livestock.

Agriculture in the NWT includes market gardening, game ranching, cropping, livestock operations and wild game harvests. A territorial and federal land freeze on lands proposed for agricultural development has been in place since 1975. This freeze was a result of land claim negotiations and provided an opportunity for the GNWT to develop long-term policies on land dispersal and to complete an inventory of suitable lands. The freeze was lifted following the termination of negotiations on the Dene and Metis Claim.

Agricultural development offers NWT residents:
- Better quality food in terms of freshness and nutritional value;
- Reduced freight costs and food costs;
- Employment opportunities.

The role of the Department of Renewable Resources in the development of agriculture is undefined. However, the Department's current responsibilities include:
- Enforcement of regulations and standards for the harvest of caribou and muskox for commercial, sport and subsistence purposes;
- Management of the Hanging Ice Bison Ranch;
- Setting and recommending harvest quotas for game species;
- Environmental impacts of agricultural projects;
- Monitoring agricultural land use outside municipal boundaries.

9.2 Actual/Imputed Value

Arable land in the NWT is approximately 4.3 million ha and is located in the Slave, Hay, and Liard River lowlands and west of Great Slave Lake. These lands fall within class 3 through 5 of the Canadian land classification system. Total farmland in the NWT was estimated at 1,155 ha in the 1991 Canada Census.

In 1992, there were 27 farms and four commercial greenhouses in the NWT. Farm products include berries, wheat, vegetables, poultry, cattle and pigs. The main produce of the greenhouses is tomatoes and cucumbers. The estimated value of agriculture is $1.2 million.

9.3 Sector Objectives

- Assist in the development of a comprehensive NWT agricultural policy;
- Develop guidelines for meat inspection which will define the GNWT's role in the inspection of meat that is harvested for personal use and distribution in communities, inter-community trade and retail sale, institutional use and export;
- Control the transmission of disease between wildlife and livestock;
- Enforce the existing regulations and standards of the harvest of game species for commercial, sport and subsistence purposes;
- Participate, along with other GNWT and federal agencies, in developing guidelines for agricultural chemical use and waste management in the NWT.

9.4 Proposed Initiatives

The GNWT Economic Development Strategy identifies thirteen "agriculture initiatives". It is not the intention of Renewable Resources' Strategy to duplicate these initiatives. However, a few of the Strategies' initiatives are mutually supportive.

Potential for Development

The NWT spends approximately $130 million/year on imported food. The amount could be reduced further by developing agriculture in the north.

- Game Ranching: A number of NWT communities have expressed an interest in developing captive bison herds for restocking purposes. The Department of Renewable Resources has supported the community of Fort Resolution in developing the Hook Lake Wood Bison Management Plan.
- NWT Meat Inspection Program: The Federal Meat Inspection Act governs the transport of meat or poultry products over provincial or international boundaries. However, meat products from wild and domestic species harvested and sold within the NWT are not subject to meat inspection. Options for meat inspection in the NWT will be examined.
- Community Gardens: Where the growing season permits, community gardens should be encouraged. Where a short growing season does not permit open gardening, community greenhouses could be developed.

Proposed Initiatives

- Meat Inspection: The Department of Renewable Resources is currently assessing options for an NWT meat inspection program in consultation with the Departments of Health, ED&T and Justice.
- Game Ranching: The Department of Renewable Resources currently manages the Hanging Ice Bison Ranch. The Department supports community initiatives to develop game ranches.

9.5 Constraints to Development

- Harsh climate;
- No NWT Agriculture Policy;
- No NWT meat inspection program;
- Limited processing facilities;
- National marketing agencies which control quota regulated industries;
- Lack of skilled agricultural workers and agri-business entrepreneurs;
- Lack of information on agricultural production and opportunities;
- Lack of regulations on disease control in wildlife and livestock;
- High transportation costs and lack of agricultural infrastructure;
- Limited agricultural chemical use and waste management guidelines.

10.0 Action Plans

10.1 Action Plans

The Renewable Resource Development Strategy covers a three year period from 1993-94 to 1995-96. The Action Plan has been designed to achieve the objectives set out in the Strategy.

10.2 Action Plan: Fiscal Years 1993-94 to 1995-96

The Department of Renewable Resources will continue to work cooperatively with other departments, individual harvesters, governments, aboriginal groups and the private sector. Two committees will be formed to address common constraints and coordinate ideas and effort.

Interdepartmental Committee on Renewable Resource Development

This committee will undertake the following tasks:

- Describe the respective departmental roles and responsibilities in the areas of fisheries, agriculture and tourism.
- Design a process to coordinate access to fiscal and technical resources and relevant regulatory requirements for resource development projects.
- Establish guidelines for monitoring and evaluating the implementation of the Strategy.

Demonstration Project Fund Committee

This committee will:

- Develop a publicity campaign to address the opportunities in renewable resource development under the Demonstration Project Fund.
- Maintain a regional and community based process for applications.
- Provide assistance to applicants for Demonstration Fund projects in the areas of proposal writing, organization, access to other information and funding programs.

10.3 Resource Sectors

The following tasks will be undertaken during the 1993-94 to 1995-96 period:

WILDLIFE

Sustainable Wildlife Harvests

- Publish results of a five-year study of polar bear populations in the Viscount-Melville area.
- Conduct a population survey of the Qamanirjuaq caribou herd.
- Complete population survey of grizzly bears in the Richardson Mountains and Brock-Hornaday River area.
- Produce a discussion paper addressing wildlife policy on allocation of harvestable surplus.

Wildlife Resource Development Assessment

- Encourage discussions and investigations to examine the effect of commercial wildlife use on attitudes toward wildlife.
- Participate in economic, social and ecological feasibility studies for proposed commercial wildlife projects.

Inter-Community Agreements

- Consult with communities on co-management of shared polar bear populations in the Keewatin region and Foxe Basin.
- Initiate development of grizzly bear management agreements for communities in the Kitikmeot and Keewatin regions.
- Assist in the development of community by-laws governing grizzly bear harvests in the Inuvialuit Settlement Region.

- Develop legislation to distribute commercial caribou quotas among communities harvesting the Bathurst herd.

Conservation Education

- Assist in developing education programs on humane trapping procedures and ethical hunting.
- Develop educational materials for communities illustrating the need for selective harvesting of male polar bears.

Non-consumptive Use of Wildlife

- Encourage opportunities to view and appreciate wildlife.

FORESTS

GNWT Programs

Forest Inventory

- Complete forest inventory update for the Lower Liard Forest Management Unit.
- Complete forest regeneration surveys for the Cameron Hills and North Slave areas.
- Initiate work on developing traditional resource use maps in the North Slave to facilitate integrated resource planning and management.

Silviculture

- Reforestation of 50 ha of harvested lands in the Cameron Hills and Jean Marie River area.
- Complete site preparation of 50 ha in the Cameron Hills and/or North Slave areas.

Insect and Disease

- Complete insect and disease survey for the Liard, Slave and Mackenzie Valleys.

Forest Fire Management

- Revise and update the Forest Fire Management Policy.
- Improve fire fighting capability by adding three remote automated weather stations, replacing one lightning direction finder and developing a lightning analysis system.
- Plan and carry out a prescribed burn in the Mills Lake area in cooperation with the Fort Providence Band.
- Train a total of 38 people in one or more of: fire management and supervision; weather interpretation and briefing; and fire behaviour.

Fort Liard Demonstration Forest

- Provide training in forestry equipment, building construction and survey techniques.
- Prepare a harvest plan for the area.
- Carry out demonstrations on different harvesting techniques.

Canada/Northwest Territories Cooperation Agreement in Forestry

Reforestation on Crown Lands

- Complete site preparation of 100 ha (backlog areas) in the Cameron Hills and North Slave areas.

Technology Transfer

- Complete site classification of harvested areas to determine silviculture treatment.
- Carry out a workshop on silvicultural requirements and techniques.

Forestry Research, Development and Demonstration

- Continue work on spruce budworm study.
- Complete initial attack productivity and effectiveness study.
- Complete a decision support system for fire management.

Management Planning and Resource Data

- Finalize the Lower Liard Integrated Resource Management Plan.
- Identify harvest areas for various community projects.
- Complete a vegetation classification in the Ft. Providence/Kakisa Lake area.

Public Information, Education and Support Agreement

- Complete a communication plan for the Forestry Agreement.
- Oversee the delivery of new school curriculum material on forest management and ecosystems.

FISHERIES

Review and Reorganization of the Great Slave Lake Fishery

- Participate in the Economic Development and Tourism review of the Great Slave Lake Fishery.

Fish Stocking Programs

- Continue to receive applications for test fisheries and initiate programs as deemed feasible.

Public Consultation and Education

- Consult with NWT residents regarding the development of regulations on the mandatory use of barbless hooks.
- Provide public information on fish stocking programs.

Management and Regulation

- Continue participation on the Atlantic Council of Fisheries Ministers and Working committees.

FUR

Stabilization of NWT Fur Industry

- Complete an NWT Fur Strategy.
- Continue trap exchange programs.
- Monitor international activities affecting the fur industry.

Prepare Inventory and Resource Data

- Develop a data base for a trapper profile.
- Continue to monitor the fur harvest in the NWT.
- Implement a system to obtain data on harvest levels and values.

Public Education and Consultation

- Hold first time trapper workshops.
- Provide public information on changes in the fur industry and how to receive the highest price for pelts.
- Hold a minimum of one trapper training workshop in each region of the NWT.
- Publish a minimum of three "Trappers' News" which provides information to trappers on the fur industry.

Waste Management

- In conjunction with other departments and agencies develop guidelines for the management of wastes from commercial tanneries.

MARINE MAMMALS

As the mandate for this sector is uncertain, tasks will be limited to exploring the Department of Renewable Resources' role and responsibilities during 1993-94.

A Greater Mandate and Resource Base

- Continue with the seal carcass collection project which analyzes seal health and its possible impact on polar bear weights. The project is jointly managed by Renewable Resources, Canadian Wildlife Service and the Department of Fisheries and Oceans.

Support Community Concerns

- Hold informal community workshops to identify concerns about marine mammals and relay these concerns to the appropriate agency.

AGRICULTURE

Meat Inspection

- Develop options for an NWT meat inspection program in consultation with other government agencies.

Game Ranching

- Manage the Hanging Ice Bison Ranch during 1993-94.
- Assist the community of Fort Resolution in completing the Hook Lake Bison Management Plan.

Habitat

- Produce a discussion paper addressing agricultural practices and impacts on wildlife habitat.

10.4 Monitoring and Evaluation

The activities and responsibilities in the Annual Action Plans will be evaluated to determine their effectiveness and efficiency.

Effectiveness will be determined by assessing the achievement of objectives and goals. Efficiency will be evaluated through appraisals of cost, delivery mechanisms and other resource (financial, technical and human) allocations.

A full evaluation of the Strategy will be conducted after three years. Responsibility for monitoring and evaluation must be shared among all the stakeholders. The ongoing success of the Strategy will depend on a high level of commitment and input.

Annual Results Reporting

The results of the previous year's Action Plan will be included in subsequent Annual Action Plans. This will enable a short term monitoring system to be put in place that will establish guidelines for data collection and evaluation.