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ROYAL COMMISSION ON ABORIGINAL PEOPLES
ABORIGINAL ECONOMY CASE STUDY PROJECT

THE ROSS RIVER DENA: A YUKON ABORIGINAL ECONOMY

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PREFACE AND ACKNOWLEDGEMENTS

Although this study was done for the Royal Commission during the summer of 1993, much of the information on which it is based came from earlier research done by the Ross River Dena Council. The Ross River Dena foray into the world of research began in the early 1980s with an impact assessment into regional development in the Macmillan Pass area. The results of the Macmillan Pass impact study came from the project direction of Peter Dimitrov and the interviews of Doris Bob, Ann Smith, George Smith. In the early 1990s the present author and Doris Bob examined the impacts of the Faro Mine development on the band's land use; and Mike Morrell and Doris Bob assessed the impacts of the Ketz River Mine on the band's land use. Each of these efforts contributed to a body of understanding about Ross River's economic life and the effects on it of successive mining development.

As can be appreciated many people contributed to these research efforts and to the current study. Foremost are the elders who patiently taught outsiders the meaning of land, animals, and culture. Special appreciation is owed to Arthur John and Peter Ladue. Successive Chiefs and their Councils guided these research projects, starting with Clifford McLeod in the early 1980s and continuing to Norman Sterriah in the early 1990s. The dedication of the band's researchers during successive research projects is the basis for our understanding. Doris Bob was the band researcher for the current project, as well as working on each of the others. For her efforts Doris is owed a special voice of appreciation. George Smith also requires special mention for his work on past research projects and for guidance to the present project from his work on the band's land claim and resource development efforts.

Many people shared freely of their experiences, understandings and ideas during the current project, more than can be acknowledged in this brief space. In addition to the people mentioned above, special appreciation is due Pam Bob, Sandra Bob, Hammond Dick, Ruth Dick, Frances Etzel, Helen Etzel, John Etzel, Margie Etzel, Jean Gleason, Nora Ladue, Dorothy McGowan, Clifford McLeod, Millie Pauls, Norman Sterriah Kathleen Susza, and Minnie Sydney, and Bob Ward for their thoughtful and considered contributions to this study.

Finally, it should go without saying that the errors in this text are my own.

A. INTRODUCTION: The Issues

The term 'aboriginal economy' implies that there is something economically distinctive, something which sets the economy of native communities apart from that of similar size non-native communities. There are, indeed, many distinctive things about the economies of rural aboriginal communities. For example, research done over the past 20 or so years indicates that they are differently organized. They are also difficult to measure by standard economic indicators and, consequently, are poorly represented or mis-represented in regional and national data. In addition, the local environment, whether under a legally, state-recognized tenure or not, is a significant part of the resource base for aboriginal economies.

'Economy' is simply a convenient way to speak about the flow of natural and monetary resources within a designated social group. The abstraction of economic from social and environmental life, however, is part of the problem that aboriginal communities have been struggling with and which has resulted in the mandate of this Commission. The most distinguishing feature of the economies of rural aboriginal communities is the integration of their economic, social, cultural and environmental aspects of life. Consequently, a study of an aboriginal economy is necessarily shaped much differently than a standard community economic profile.

This report examines the aboriginal economy of the Ross River Kaska Dena. Ross River is a small, semi-isolated, ethnically-mixed village in the southeast Yukon. The Ross River Kaska make up about 60% of the village's population. As an economic case study, the experience of the Ross River Kaska provides insights into subarctic aboriginal communities which have become linked by roads, have experienced major resource developments on nearby traditional lands, and which have been involved in land claims negotiations.

1. What is Distinctive About Northern Aboriginal Life?

Before proceeding to an examination of the Ross River Kaska economy, it would be useful to discuss some more general questions, to set the stage for abstracting the general from the details of the case study.

First, what is distinctive about northern aboriginal economic life? The conflicting visions of the north were well summed up by the title of the report of the Mackenzie Valley Pipeline Inquiry: Northern Frontier -- Northern Homeland (Berger 1977). The frontier vision conceives the Canadian north as a geographically vast, climatically severe, biologically unproductive, and sparsely populated region of Canada, which has a vast potential of mineral and water resources important for the national economy. The homeland vision sees the north as the local environment which has made social and cultural life possible in the past and which, if the land and resources are treated sustainably, will continue to provide the basis for social life and cultural change into the future as well.

What is most distinctive about northern aboriginal economies is the persistence of animal harvesting as a central and integrative part of the economic mix and of social life. Wildlife and fish are at the heart of the homeland vision carried by northern aboriginal peoples. The cultures and historical experience derive from economic and spiritual relationships with animals and the environment which produces them. The harvest represents both the means and the ends in life, part of the method for making a living and the way that satisfaction and meaning are achieved.

Many planners and social scientists in the past expected that aboriginal ties to the environment and dependence on fish and wildlife would fade as part of the process of modernization. The many environmental struggles of Canadian aboriginal peoples attest to the continuing ties to the land. In the north, in addition to environmental political struggles, there is a growing social scientific literature documenting the extent of recent aboriginal land use and the importance of subsistence economies - the somewhat uncomfortable term which social scientists have settled on for naming the mixture of hunting, trapping, fishing and firewood and plant gathering (see e.g., JBNQHRC 1982; Usher and Wenzel 1987; Wolfe and Walker 1987; Tobias 1988).

What is also distinctive is the organization of this part of the economy. Use of land, the means of financing harvesting, and the distribution of production are all organized along kinship lines. This is the basis for the integration of social, economic and environmental values and activities in northern aboriginal life.

Access to resources is generally organized along kinship lines. Spatially,

communities have traditionally recognized territories on which harvesting is carried out. Different kin groups have formally recognized customary rights or informally recognized interests to particular parts of the territory. Some communities have formal rules of tenure specifying who can use a given territory and defined codes of behaviour for others to follow if they desire access for harvesting (e.g., Bearskin et al. 1989). In other communities the normative ethic specifies that the land is open to all. However, actual use patterns indicate that the community recognizes areas of kin-group interest. And in their behaviour 'outsiders' often act in identical ways that non-kin members do when seeking permission for use under the more formal tenure arrangements. For example, in situations where the rules specify that anyone can camp and hunt and fish anywhere they want, people will often seek out an older member of the kin-group which customarily uses a particular area to obtain information about good camp locations, advice about fishing locations, information about recent animal abundance and so on.

The traditional organization of tenures have gone through various changes during the middle part of the century but, for the most part, the old patterns remain with some modifications. The creation of large common areas and altered rules for access to fur resources appear to be the most widespread changes. Following settlement in villages, areas equal to a day's travel from the village have tended to become intensively used commons. Exclusive use traplines were registered in most parts of northern Canada between the mid-1920s and the 1950s. In some areas, trapline registration was essentially supportive of traditional aboriginal tenure systems (Anderson 1961). However, in other areas, at the early stage of registration, traplines became a method used to displace Indians in favour of settlers (Brody 1981). Traplines represent a state-created resource tenure laid on top of the aboriginal system, which have been complementary in some cases and important change events in others.

Financing the costs of harvesting tends to be organized as a kin enterprise. Operation of modern subsistence requires a considerable cash investment. Settlement in villages created transportation problems due to the separation of 'usual' residence from harvesting lands. Travel vehicles represent the most costly part of a modern outfit for northern aboriginal groups. These may include: trucks, boats and motors, all-terrain vehicles, skidoos, or chartered aircraft. Different groups require different mixes of vehicles for access to harvest lands. Typically,

extended family or larger kin-groups pool financial resources and available time, and share harvested meat and other bush produce. Regular employment often leaves employees with inadequate time to hunt or fish. The solution lies in making equipment available to others. A father with a full-time job may have a skidoo and the money to keep it fuelled, but lacks the time to hunt for his family. An unemployed older son may be the primary supplier of meat for his family. Meat brought back is butchered, preserved, and distributed by his wife and/or his mother. Many different arrangements are possible. A single daughter with a steady job purchases a truck and makes it available to her mother and brothers, who use it for travel to their fish camp and for hunting. In cash impoverished communities elders are sometimes the wealthy because they have a regular income through their pensions. Elders are sometimes the people who can afford expensive utility vehicles, such as pick-up trucks.

Labour is also organized along kin lines. Bush activities are generally done as a group. This includes travel, camp construction and maintenance, harvesting, butchering and transportation of meat and skins, preservation, and the distribution of food. Similarly, education and training in the complex of bush skills, values and the traditional ecological knowledge required to operate the subsistence system is kinship based. And, in turn, participation in these activities is what keeps the social system alive and adaptive. "Kinship is reinforced and reproduced (i.e. generation after generation) by (1) the sharing of work, and the learning of skills and values in the course of production, and (2) the distribution of goods and services and the organization of consumption" (Usher et al. 1992:113).

2. The Nature of Opportunity and the Nature of Conflict

Settlement in villages and the choices of modern living require significant amounts of cash. Northern aboriginal economies are now characterized as 'mixed'. That is, cash income is derived from employment and business earnings, from government transfer payment programs, and from the sale of harvested commodities (generally, furs and, in some parts of the north, commercially harvested fish). Income-in-kind comes from the harvest of wild foods and materials (such as the domestic supply of firewood). Both types of income are required for the aboriginal economy to function. Many communities are cash poor and the quality of life is felt to be low. That perception is, in part, connected to the difficulties of operating the bush part of the economy without an

adequate supply of money.

Northern aboriginal communities are looking for development opportunities. Many people are unemployed and, when asked, respond that they want jobs. Yet, newspapers and television are full of stories about aboriginal communities' opposition to resource development proposals. Although much of the opposition is a political response by aboriginal groups to government and third party *de facto* expropriation of land or resources, some of the response results from fears of environmental impact and resource use which is unsustainable. The critical question is, once the political problems have been put aside through the land claims or another process, what are the conditions or criteria for developments to be considered a compatible part of the northern aboriginal economy?

a. Standards for appropriate community economic development

A key factor which distinguishes aboriginal peoples from other Canadians is attitudes about mobility. For most Canadians, when the quality of the local environment deteriorates, when the local quality of life is diminished, or when the local economy no longer provides adequate support, thoughts switch to moving elsewhere within Canada. Aboriginal Canadians have a different 'national' perspective. Ties to the local landscape are linked to cultural and historic identity. Communities persist, even under conditions which non-aboriginal Canadians would find far from tolerable. Aboriginal Canadians obviously want improvements to their quality of life, but not as an exchange for environmental quality and sustainable use objectives.

From a global perspective, northern Canada is an extreme environment. The productive capability of the land, the forests and water is far more limited than that further south. The remarkable adaptations of northern aboriginal peoples have enabled long-term sustainable occupancy of this relatively unproductive environment. The objective of northern peoples is to continue their occupancy as a socio-political entity, that is, as recognizable peoples.

The reality of the north is that the limited resource base makes it fragile for people whose economic objective is long-term occupancy as a people. Modern northern economics depend on a mix of renewable and non-renewable resources. Aboriginal economies have historically relied on renewable resources and, though their long experience, they have

learned a variety of lessons about sustainable resource management. More recently, the communities have been exposed to international commodity economics, initially through the fur trade and later through a variety of non-renewable resource developments. Valuable lessons have been learned. One of these is that when non-renewable resources have been fully used, they are gone. Employees and companies move to other works; the people of the local homeland remain; and environmental problems which are not dealt with remain as well. Another lesson is the dependence of commodity production economics on international markets and the global economy.

If aboriginal peoples are going to keep living in place, they require both cash and the produce of the bush. The bush economy is the only proven sustainable economy in the north. At the very least, fish and wildlife will be necessary to provide for people after the local non-renewable resources are depleted and when global demand for northern commodities declines. The critical question for economic development is how to combine employment opportunities with environmental quality and productivity.

This report looks at the efforts and experience of the Ross River Kaska people as they have attempted to find ways to provide for family and community economic needs and maintain their cultural values and standards. Section B provides a profile of the land and its aboriginal inhabitants. Sections C and D look at the history of the Ross River Kaska within a regional context. Section E profiles the Ross River mixed-economy. Section F examines the community's economic goals. Section G looks at economic opportunities and problems. Section H examines the modern hunting, trapping, and fishing economy. Section I evaluates the band's experience with business development. Section J examines their experience with corporate and tribal relationships. Finally, sections J and I draw conclusions from what we understand about the band's experience and makes recommendations.

B. ROSS RIVER AND THE TRADITIONAL TERRITORY

1. Village and Band

a. Community and regional infrastructure (1993)

Ross River is located in the flatlands of the Tintina Trench on the upper Pelly River, at the Canol Road crossing. The town straddles the Canol Road. The band's lands, which includes most of the Indian housing and band buildings, lies on the east side of the Road. And the housing of non-native residents and most non-native businesses and government facilities are on the other side. Several Indians own houses on the west side of the road.

The Robert Campbell Highway -- the all-weather route connecting Watson Lake, Faro, and Carmacks and providing road linkages to Whitehorse and southern Canada -- crosses the Canol Road about 10 kilometres to the southwest. Except for the in-town section and the connector with the Robert Campbell Highway, the Canol Road was not plowed in winter. An airport, with a gravel runway, provided facilities for scheduled flights and charter use. In the summer of 1993 scheduled, but irregular flights, from Whitehorse operated 3 times a week. With the closure of the Faro mine, demand was not considered sufficient for flight operations unless an adequate number of passengers had committed to a flight. A twice weekly bus service operated from Whitehorse. A ferry service and a pedestrian suspension bridge provided access to the north shore of the Pelly River and the North Canol Road in summer, and an ice river-crossing provided access in winter.

Basic services were available in Ross River. A sub-agency bank-franchise, open several days-a-week provided basic banking. Retail outlets included the band store (groceries, clothing, and some hardware) and a non-native owned grocery and hardware store. Gas and vehicle services were available at several outlets. Accommodations and meals were available at a motel complex and a bed and breakfast. The post office operated from the band store, with delivery 3-times a week. A variety of government offices and services included: R.C.M.P., a nursing station, a Yukon highways maintenance depot, a fish and game office, and a school to grade 10. An arena and newly completed community hall were located near the school. The village was served by Roman Catholic, Anglican, and Baptist Churches.

Water and sewage were transported by truck. Village water, from a central deep well, was trucked to house holding tanks. Most houses had a running water system and internal plumbing, but some of the older Indian housing lacked flush toilets and running-water sinks. Permafrost problems and the high water table induced the Yukon government to begin a transfer to seepage pit sewage waste disposal system from septic fields in 1989 (David Nairne and Associates Ltd. 1990). A solid waste dump was located 2 kilometres south of the village on the South Canol Road. The band operated its own collection service and the rest of the community relied on individual hauling (David Nairne and Associates Ltd. 1990).

All houses were electrified. Electricity was generated by the Aishihik Hydro-electric project and transported by a spur line from Faro. There was a back-up generating system consisting of 3 diesel units. NorthwestTel operated a micro-wave linked telephone system. There were two television and several radio stations.

Fire protection relied on a volunteer fire department, equipped with a pump truck and other apparatus. The airport was used as a base for water bombers for forest fire protection (David Nairne and Associates Ltd. 1990).

The Ross River Dena Council facilities included a band office, a band hall, a laundry facility and wash house, a group home, the Indian cemetery, an old band office which had been used as a Drop-in Centre and local radio station, but which in Summer 1993 was being used for storage. In addition, the Ross River Dena Development Corporation [RRDDC], the independent financial and business arm of the Dena Council, had its headquarters in a mobile home. The RRDDC operated the Dena General Store, which also contained the village post office and a rental office space, which was used for a band member's business.

In 1990, there were 139 single detached residences in the village and a band-operated group home with 6 units. Eighty-five of the houses were occupied by band members. The average Indian household size was 2.8 people (David Nairne & Associates 1989a). This represented a significant decrease in residential density from the early 1980s, when the 58 households averaged about 3.9 people per household (Dimitrov and Weinstein 1984). However, standards of the band housing was considered generally poor: "According to INAC, the majority of houses

occupied by Ross River Band members require replacement" (David Nairne and Associates Ltd. 1990:24). Significant changes to the band's general housing standards took place during the early 1980s. Most houses, at that time, were log construction with pit privies and water-holding containers. The newer houses constructed after 1982 were equipped with septic tanks and pressurized running water systems (Bingham 1982, Bingham n.d.).

b. Ross River Dena population

The band represented somewhat more than 60% of the population of Ross River during the late 1980s. According to Indian and Northern Affairs Canada QASR population database, the total band numbered about 350 people during the late 1980s, and approximately 250 lived in Ross River or on the surrounding lands. Figure 1 shows the Ross River band's population changes between 1965 and 1990.

In the early 1980s, demographics indicated a young and growing population (Dimitrov and Weinstein 1984). Fifty-one per cent of the band membership was under 21 and 24% was less than eleven years.

2. The Ecology and Resources of the Ross River Lands

The Ross River hinterlands -- the Ross River Kaska traditional lands -- are well known within the Yukon for their resources, both for the renewable and non-renewable resources. The band's harvesting territory cover the central southeastern part of the Yukon, with a portion extending into the Northwest Territories. The lands are topographically varied, consisting of mountain ranges, isolated mountains, upland plateaus, and deep, wide valley bottoms. Two major mountain ranges frame the Ross River lands, the Selwyn Mountains, on the north along the Yukon-Northwest Territories boundary, and the Pelly Mountains, on the south. Several lesser mountain ranges (the Glenlyon Range, the Anvil Range, the Campbell Range, the South Fork Range, the Itsi Range) and a variety of isolated mountains modify much of the upland character of the remainder of the region. The mountain and uplands regions are split by several wide valley bottoms. The most extensive of these are the Ross River Valley and the Pelly River Valley. The middle reaches of the Pelly River flows through the floor of the Tintina Trench, a major geological feature comparable to the Rocky Mountain Trench, which is about 12 kilometres across at the junction of the Ross and Pelly Rivers.

Most of the Ross River lands fall within the Pelly River drainage area, although the far eastern lands are drained by the tributaries of the Liard, which flows into the Mackenzie. Medium and small size lakes dot the Ross River landscape.

The climate of the Ross River lands is typified by long, cold winters and short warm summers. Lakes and Ponds begin to freeze in October. Snow fall is light in the valley bottoms, with considerably higher accumulations in the plateau uplands and mountains. Valley bottoms are generally colder in winter than the uplands. Winter temperatures can be extremely cold; Ross River has experienced some of the coldest temperatures recorded in Canada. Winter days, however, are frequently clear and windless.

a. The renewable resource base

The forested areas of the Ross River lands generally fall into the closed canopy regions of Canada's boreal forests, although the sub-alpine forests are more park-like, with open spaces between the trees. Trees generally cover the valley bottoms and plateau areas. Alpine tundra occurs on the slopes above the treeline (between 1350 and 1500 meters above sea level). In all, forest covers about 40% of the Ross River lands (Rennie 1977). Along the middle reaches of the Pelly and Macmillan Valleys there is good forest growth, with white spruce growing to saw-timber size in places.

The animals of the Ross River lands, the resource base for Ross River subsistence, are commonly found throughout the Yukon Territory (Table 1). The Yukon has a diverse fauna relative to other areas of the north. The Yukon's fauna is a blend of boreal (moose, black bear, beaver, lynx, porcupine, wolverine, etc.), western mountain (mountain sheep, hoary marmot or ground hog, as it is locally called, grizzly bear, etc.), far northern (arctic ground squirrel and inconnu), and Pacific drainage animals (chum salmon and king salmon).

The Ross River lands are particularly rich in their diversity of the ungulate species. Moose, woodland caribou, mountain goat, and Dall's sheep all occur. Mountain goats are at the northern limit of their range within the Selwyn Mountains (Banfield 1974 and Youngman 1975) and, consequently, are rare on Ross River lands. At least 4 woodland caribou herds migrate through the Ross River lands (Jingfors 1990). Biologists are not certain how discrete these herds are. The Redstone Herd ranges

TABLE 1. Animal Resource Species in the Ross River Region.

(Based primarily on Banfield, 1974; Belrose, 1976; Elson, 1974; Godfrey, 1966; McPhail and Lindsey, 1970; Rand, 1975; Scott and Crossman, 1973; and Youngman, 1975.)

MAMMALS

Ungulates

-Moose	<i>Alces alces gigas /andersoni</i>
-Caribou	<i>Rangifer tarandus caribou</i>
-Dall Sheep	<i>Ovis dalli dalli /stonei</i>
-Mountain Goat	<i>Oreamnos americanus</i>

Bears

-Black Bear	<i>Ursus americanus</i>
-Grizzly Bear	<i>U. arctos</i>

Fur Mammals

-Beaver	<i>Castor canadensis</i>
-Lynx	<i>Lynx lynx</i>
-Marten	<i>Martes americana</i>
-Mink	<i>Mustela vison</i>
-Weasel	<i>M. erminea</i>
-Otter	<i>Lontra canadensis</i>
-Wolverine	<i>Gulo gulo</i>
-Red Fox	<i>Vulpes vulpes</i>
-Wolf	<i>Canis lupus</i>
-Coyote	<i>C. latrans</i>
-Muskrat	<i>Ondatra zibethicus</i>
-Red Squirrel	<i>Tamiasciurus hudsonicus</i>

Small Game Mammals

-Hoary Marmot (Ground Hog)	<i>Marmota caligata</i>
-Arctic Ground Squirrel (Gopher)	<i>Spermophilus parryii</i>
-Porcupine	<i>Erethizon dorsatum</i>
-Snowshoe Hare (Rabbit)	<i>Lepus americanus</i>

BIRDS

Upland Game Birds

-Blue Grouse	<i>Dendragapus obscurus</i>
-Spruce Grouse	<i>Canachites canadensis</i>
-Ruffed Grouse	<i>Bonasa umbellus</i>
-Sharp-tailed Grouse	<i>Pedioecetes phasianellus</i>
-Willow Ptarmigan	<i>Lagopus lagopus</i>
-Rock Ptarmigan	<i>L. mutus</i>
-White-tailed Ptarmigan	<i>L. leucurus</i> fowl

Waterfowl

- Lesser Canada Goose
- Lesser Snow Goose (M)
- White Fronted Goose (M)
- Sandhill Crane (M)
- Whistling Swan (M)
- Mallard
- Pintail
- Green-winged Teal
- American Widgeon
- Shoveler
- Canvasback
- Greater Scaup
- Lesser Scaup
- Common Goldeneye
- Barrow's Goldeneye
- Bufflehead
- Harlequin Duck
- White-winged Scooter
- Surf Scoter
- Common Merganser
- Red-breasted Merganser

Branta canadensis parvipes
Anser caerulescens caerulescens
A. albifrons
Grus canadensis
Olor columbianus
Anas platyrhynchos
A. acuta
A. carolinensis
Mareca americana
Spatula clypeata
Aythya valisineria
A. marila
A. affinis
Bucephala clangula
B. islandica
B. albeola
Histrionicus histrionicus
Melanitta deglandi
M. perspicillata
Mergus merganser
M. serrator

FISH

- Lake Trout
- Broad Whitefish
- Lake Whitefish
- Round Whitefish
- Inconnu
- Grayling
- Pike (Jackfish)
- Longnose Sucker
- White Sucker
- Burbot (Ling Cod)
- Chinook Salmon (King Salmon)
- Chum Salmon (Dog Salmon)

Salvelinus namaycush
Coregonus nasus
C. clupeaformis
Prosopium cylindraceum
Stenodus leucichthys
Thymallus arcticus
Esox lucius
Catostomus catostomus
C. commersoni
Lota lota
Oncorhynchus tshawytscha
O. keta

M--For the most part, only birds which breed in the area are included in the table (Godfrey, 1966). The exceptions are a few species of larger birds which migrate through the area and which have played a role in the Ross River hunting economy. These have been annotated with an 'M'.

over middle sections of the Mackenzie Mountains, in the northern area of the territory; the Finlayson Herd ranges to the east of Ross River; the Pelly Herd ranges on the south part of the territory; and the Tay Herd inhabits the country to the west of the North Canal Road. Moose are an extremely important resource species for Ross River subsistence. The Ross River area, particularly the North Canal Road area has long been noted for an abundant moose population (see e.g., Rand 1945; Jingfors 1990). Both caribou and moose migrate seasonally to avoid deep snow cover in winter, to avoid flies and biting insects in summer, and to find protected calving areas and good feed. Migrations are both altitudinal and geographic.

Elevation shifts in ungulates play an important role in Ross River hunting land use. Two features distinguish the ecology of Yukon wildlife from that of wildlife in other regions of the Canadian boreal forest. The mountains have a relatively low elevation treeline. This produces two major plant communities separated by elevation, a forested zone and an alpine scrub and tundra zone. Some mammals are limited to one zone or the other; others, such as caribou, make use of each zone at different times of year. The hoary marmot (or ground hog as it is locally known) is limited to the alpine tundra zone within the Cordillera Mountains. The other difference is the population densities of the aquatic fur mammals (beaver, muskrat, and otter) do not have the abundance in the Yukon mountains that they have in many of the low elevation areas of the sub-arctic forests in other areas of the Canadian north. And consequently, these animals are only of marginal food importance. However, during times when pelt prices of aquatic mammals were high, hunting groups would travel considerable distances to areas of known abundance for a seasonal hunt.

Another distinguishing feature of Yukon ecology is the presence of Pacific salmon. Chinook spawn in several of the larger tributaries. Spawning escapements have been low for some time, and salmon are not considered one of the more important food resources, although they are relished. However, Ross River traditions speak about chinook being an important food source in the past. Elders manufactured elaborate fish traps until they were replaced by nets in mid-20th century (Pat Moore pers. comm.). Biological data about the historical capability of Ross River streams as spawning and nursery areas are lacking; numerical escapement estimates are sporadic and only go back to the 1960s. However, the accounts by Ross River Indians of past salmon abundance

suggest that heavy commercial fishing for Yukon River salmon stocks in Alaska fisheries likely resulted in large reductions of fish reaching the spawning grounds on the headwaters of the Pelly River.

Compared to many other areas of the Yukon, the Ross River region has an abundance of smaller lakes. Many of these are concentrated in the flats of the lower Ross River Valley and the headwaters area of the Pelly River. A number of medium-sized lakes, such as Frances Lake, the Pelly Lakes, Jackfish Lake, Finlayson Lake, Sheldon Lake, etc., are also scattered throughout the region. These lakes and the rivers and streams provide fisheries for lake trout, broad whitefish, lake whitefish, round whitefish, inconnu, grayling, jackfish (or pike), longnose sucker, white sucker, and ling cod (or burbot).

Ross River lands also have a large diversity of small game animals compared to other regions of the sub-arctic. These include snowshoe hare, porcupine, arctic ground squirrels, hoary marmots and a large variety of upland game birds, including blue grouse, ruffed grouse, spruce grouse, sharp-tailed grouse, willow ptarmigan, rock ptarmigan, and white-tailed ptarmigan.

A variety of duck species and the Canada goose breed on the Ross River lands (Table 1). The area, however, is not part of any of the major North American migratory corridors and waterfowl are not a major subsistence resource.

b. Non-renewable resources

The Tintina Trench lands and surrounding mountains are heavily mineralized. The town of Faro and the open pit Anvil lead-zinc mine, which has been a mainstay of the Yukon economy during the late 20th century, are about 60 kilometres from Ross River. Several smaller mines have operated on nearby lands. (Since 1993, when this paper was written, the Ross River low-lands have experienced intense mining exploration and staking. One new lead-zinc mine is in advanced stages of the permitting process and others are at proposal phases.)

During the early 1980s major regional development was anticipated from a combination of mine construction in the Macmillan and Howard's Pass areas of the Mackenzie Mountains, a possible hydro-electric development on the upper Pelly at Hoole Canyon, and the construction of the necessary infrastructure to service these projects. A bridge was planned

over the Pelly at Ross River, to replace the summer ferry and the North Canol Road was to be reconstructed to handle heavy ore trucks. Ore trucks were expected to rumble down Ross River's main street. None of this happened, although the plans are still on file, apparently waiting for global mineral prices to make the required investments profitable.

A number of impact assessment studies were done of the likely environmental and socio-economic consequences of the developments (e.g. Salisbury and La Rusic 1981; Reid Crowther and Partners 1982a, 1982b; Dimitrov and Weinstein 1984). One of these (Dimitrov and Weinstein 1984) was initiated by the Ross River Band Council because the band was not satisfied that their interests and their vision of the future was taken into account in the analyses of the government sponsored studies.¹

The North Canol Road is a route to major mineral deposits. Amax of Canada's Mactung tungsten property was considered to be one of the largest tungsten deposits in the world (Reid Crowther and Partners 1983b). The development plan called for a work force of 200 - 250 people commuting, on a rotational system, from a larger Yukon center. Transportation of ore down the Canol Road was to be limited to one truck per day at the proposed milling rate.

The Macmillan and Howard's Pass Region of the Selwyn Mountains also contains world-class lead-zinc reserves. Two properties, Tom and Jason, are located in the MacPass area, with access through the North Canol Road, and another, the Howard's Pass complex, is accessible through tote roads from Tungsten. The Tom lead-zinc property was owned in the early 1980s by Hudson Bay Exploration and Development Limited; Jason by Aberford Resources Ltd.; and Howard Pass claims by Placer Development and U.S. Steel. Early planning on the Tom and Jason deposits suggested that a work force of 200 would be required for each mine and that ore shipments would result in 24 outward trips per day, unless the properties were worked together. Early estimates of the Howard's Pass properties suggested that the deposit was rich enough to exceed the production rate of the Anvil mine, which at times employed a labour force in excess of 600 people (Reid Crowther and Partners 1983b).

Several relatively small gold deposits in or near the Tintina Trench have been mined or explored.

In addition to metal mines and deposits, the lands contain other economic mineral resources. Barite is used as a drilling mud for oil and gas exploration and production. Several barite deposits have been staked on the North Canol. The Tea deposit is located 200 kilometres northeast of Ross River. Development commenced in 1982 and a mill was constructed about 8 kilometres from Ross River. However, financing and market problems forced a shutdown of operations. The Walt and Cathy barite deposit is located in the Macmillan Pass area. A small coal deposit is located about 3 kilometres from Ross River, which was of interest to Cyprus Anvil Mining Corporation in the 1980s to replace the nearly exhausted Tantalus Butte Mine near Carmacks. The coal was used for drying concentrate in the Faro mill.

The region's hydro-electric potential has also been explored. The Faro mine, when operating, required significant quantities of electricity. Electrical supply and rates have been important issues in planning the mine's future. Local hydro-electric production was explored with this in mind. Over the years, a number of developments have been proposed. The North Canada Power Commission [NCPC] did preliminary planning for development of Ross Canyon and Hoole Canyon, on the upper Pelly. The Ross Canyon plan called for construction of an earth-fill dam and 30 megawatt power house on the Ross River, about 8 kilometres from the village. The Hoole Canyon proposal called for construction of an earth-fill dam on the Pelly, about 30 kilometres upstream from Ross River, and a powerhouse with a 40 megawatt capacity. The scheme also called for a control structure below Fortin Lake, to control the discharge on the upper Pelly (Reid Crowther and Partners 1983b).

Attitudes about hydro-electric development have changed over the intervening years. Planners and engineers now recognize the public doubts about projects in larger river systems. And the assessment process now includes hearings on the willingness of First Nations to have the developments proceed. More recent hydro-electric proposals in the Ross River area concentrated on tributaries of the Ross and Yukon, rather than the main-stem river. In the early 1990s, Ross River and Carmacks Bands were asked about their interest in several small scale developments on tributaries. Two of three proposals were rejected outright as conflicting with resource use and values.

C. A BRIEF HISTORY OF THE ROSS RIVER DENA

PART 1: PRIOR TO THE FARO MINE DEVELOPMENT

1. Who are the Ross River Dena?

The Ross River Dena are the aboriginal inhabitants of the upper Pelly and upper Liard River drainage, parts of the headwaters of the Yukon and the Mackenzie Rivers. They are an upland mountain people, whose traditional subsistence required seasonal movements between upper slopes and highlands and the valley bottoms below.

The present day Ross River Dena consists of families from several different regions of the Ross River territory, plus the descendants of people who came from other areas to trade and summer at the Ross River region trading posts and stayed. According to Ross River traditions, the upper Pelly and Ross Rivers was a place of peace. It was a place that people from other areas came to avoid conflicts within their groups of origin.

This is how people came to this country. They made friends here, found mates or mates for their children. They did not want to go back to their home areas because people were still fighting.

(Arthur John)

The band's core family areas center on Mye Mountain in the west, Pelly Banks in the east, and the Wolverine Lake and Grass Lake country to the north. The southern lands on the Lapie River have had less use historically because of concern over conflict with the Teslin Tlingit, who had a reputation for aggressive behaviour.

2. An Outline of Traditional Economics

The Ross River territory is both the resource base for the traditional aboriginal economy and the homeland of the Ross River Dena as a People. Trading posts were constructed at the junction of the Ross and Pelly Rivers and at Pelly Banks, on the upper Pelly, during the early 20th century. The territory is the harvesting area of the hunting groups whose primary summering and trading locations during the early and mid-20th century were at the mouth of the Ross River and at Pelly Banks.

The trading posts, as regional summering locations, were important nodes in the annual round of harvest and travel that was required to make a living from the Ross River lands. Visits to the posts played

important social and resource management roles. Hunting groups gathering at the posts socialized, arranged marriages and partnerships, and collectively discussed the state of game populations on different regions of the territory as part of strategic land use decisions.

The salmon fishery, in mid-summer, was the first seasonal dispersal. Fish camps, upstream and downstream on the Pelly and up the Ross River, were located at the mouths of major tributaries and on larger pools. Travel was mainly by foot, using pack dogs, along the extensive trail networks that linked the different parts of the territory. Rafts were also built for down-river travel. In the more distant past, moose hide boats were used for river travel.

After the fishery, the hunting groups walked the trails onto the higher elevation lands to hunt small and big game animals, and to pick berries. Hoary marmots and arctic ground squirrels were primary resource species for the hunting economy because they were choice food animals which could be easily snared and preserved. The use of efficient traditional harvesting techniques (such as snaring) reduced the costs of an annual hunting outfit, which was particularly important when the groups lacked surplus funds to purchase quantities of ammunition. The hunting groups remained at high elevations until the moose rut began, at which time camps were moved down to moose hunting areas closer to the treeline.

After the fall hunt, smaller family groups dispersed to trapping areas at lower elevations. Some groups first returned to Ross River or to Pelly Banks or other regional trading posts to purchase a stock of groceries and other supplies. Fine fur animals - fox, lynx, marten, mink and others - were trapped through the winter. Winter food harvesting was more opportunistic than during the fall hunt. Moose and caribou were hunted as encountered. Small game hunting went on as a matter of course, as people went about other tasks, such as checking traps and collecting firewood. Fish nets were set when people were camped near lakes and snare-lines were maintained when snowshoe hares were abundant.

In late-winter, larger groups would coalesce at productive fishing lakes or spring beaver and muskrat trapping areas. Sometimes women and children remained at the fishing lakes while the men travelled rapidly by dog team on the spring snow-crust to more distant areas known for their abundant beaver and muskrat. While the men conducted intensive hunts for the aquatic fur mammals, the women fished and hunted from the

lakeside camps, supplying their own food needs and putting up a stock of dried fish for the group's summer needs.

Following the spring harvest, groups from different regions of the band's territory would converge at the Ross River or Pelly Banks trading posts. Summer, prior to the salmon fishery, was a time of trading, travel, visits, and seasonal wage labour. Employment, cutting cord wood for the steamboats, was available at the major staging posts on the Yukon-Pelly River transportation chain. Food needs were supplied by local hunting and fishing.

Most of the band's regional hunting groups had to travel considerable distances to obtain the economy's seasonal mix of resources. A few places, like Mye Mountain -- the contemporary Faro mine area -- brought the full mix of resources together in one location. Mye Mountain and the valleys of the creeks and streams draining its slopes was a core area for a large group of Ross River families. It provided all the food necessities of life -- caribou, moose, sheep, berries and other plants, marmots, ground squirrels, salmon, suckers, grayling and other fishes -- in abundance and was widely known for that. The trail up the Mountain from Blind Creek was worn deep from generations of use by the families who harvested in the area.

In general, success in subsistence economies depends on two factors: the productivity of animal populations and peoples' detailed knowledge of the local environment and animal behaviour. The subarctic Indian hunting economy, however, also requires resource alternatives due to animal populations changes, some of which are cyclic and predictable, and other which are not. The economy's resource alternatives represent the resilience that is required for the continuity of human life in the harsh subarctic environment over long periods of time. The Ross River economy is subject to less resource variance than many others because of the abundance of ungulates and the large amounts of meat that a single kill provides. The availability and productivity of moose and caribou on its territory is one of the main reasons that the band has remained one of the more traditional Indian bands in the Yukon, even in the face of severe dislocations and resource development impacts.

Among the changes to Indian life brought about through involvement with the fur trade was the requirement for a cash flow. As manufactured items came available Indians in the Yukon, as elsewhere

in the north, experimented with their utility. By the 20th century store-bought clothing, metal tools and supplies, firearms and steel traps and wire snares, and carbohydrate food staples had become part of Indian life. As the century progressed some people experimented with gasoline outboard motors and river boats. The seasonal round of harvests was altered so that a greater emphasis could be placed on fur production. There was a corresponding greater reliance on efficient seasonal harvesting so that caches of preserved foods could be prepared to release more time in winter for trapping. The sale of furs and seasonal work (often associated with the transportation needs of the fur trade) supplied the cash requirements. For the Ross River people this pattern of life worked well enough through most of the first half of the century that at least one family had enough spare cash during the 1930s to invest in a gas engine and boat.² The prices of furs through the first 4 decades were sufficient for the mixed life-style of hunting, trapping, fishing and seasonal employment to be the general rule for Indian life through much of the Yukon. Prices fluctuated somewhat from year to year, but even during the heat of the severe depression of the 1930s the demand for furs only abated briefly. During World War II fur prices climbed to unprecedented heights.

3. Economic Difficulties Following the Collapse of the Fur Trade

a. Regional trading posts

The Ross River post was the single exception to the general closure of fur trading posts throughout the southern and central Yukon during the late 1940s and early 1950s. The previous decades had seen the development of a complex of posts and transportation networks along the Yukon, Pelly, and MacMillan Rivers. Indian people, at the time, had a choice of which post to visit and where to spend their summer. Besides the posts at Ross River and Pelly Banks, at various times 3 posts operated on the Macmillan River, one on Sheldon Lake on the upper Ross, another at Frances Lake, another at Pelly Lakes, one at Teslin, a small post at Rose Point under the shadow of Rose Mountain, as well as the more established trading posts at Carmacks and Fort Selkirk.

Different posts competed using higher fur prices, lower priced and better varieties of consumer goods, and favourable debt relations when trappers appeared at the beginning of the season for a 'grub stake'. Ross River was a popular choice, but the complex of rivers made the other posts easily accessible. The rivers provided a relatively easy method for travel to downstream posts when the water was open. Families constructed

rafts for one-way trips and then walked the trails with pack dogs back to their salmon fisheries, or joined other groups at their usual fishery location. In some, instances families or groups would join together and the 'visits' would last one or more hunting-trapping season. Some of the families on the western edge of the Ross River territory spent their summers on the Yukon River, at Carmacks and Fort Selkirk, travelling up the Pelly to their home territory.³ The ready availability of summer employment on the Yukon River, cutting cordwood for the steamboats, was a significant attraction to travel to the more distant posts. In many instances people would travel to several summer encampments for visiting.

White trappers had been competitors in the early part of the century, resulting in serious animal population declines on the upper Pelly (Cruikshank 1974). However, by the middle 1940s Indians were again the exclusive fur harvesters in the region (Rand 1945:4).

Life was disrupted in the early 1940s by construction work on the Canol Pipeline. Ross River Indians experienced epidemics and deaths from new diseases, declines in game and fish, and exposure to alcoholism and sexual abuse (Cruikshank 1977; Dimitrov and Weinstein 1984). However, the 3000 men and trucks left as quickly as they had arrived.

b. Ross River Dena economic strategies -- 1950s and 1960s

Shortly after World War II fashion went through a major shift and furs plunged in value. The demand for furs remained low for several decades, only recovering in the mid-1970s. This resulted in a period of economic crisis among Canadian aboriginal hunting peoples which lasted for nearly a generation. With the collapse, most of the regional Yukon trading posts closed and the steamboat river transportation system was abandoned.

Trapping persisted in the Yukon, but the shock of the abrupt decline following historically high prices acted as a deterrent during the immediate post-War years. The value of furs trapped in the territory, however, and the income of people who persisted, remained low through the 1950s and 1960s (Weinstein 1992).

Ross River became a band village with the closing of the Pelly Lakes posts in 1952. Families from the Pelly Lakes country and Pelly Banks moved their trading focus to Ross River, where a local settler had taken

over the old Taylor and Drury post. Ross River and the lands that comprised its immediate hinterland became the focus of harvesting activities for a greater proportion of the band's family groups.

The availability of cash was a major problem at the time for aboriginal peoples throughout the north. In the Yukon, the collapse of fur value was compounded by the abandonment of the stores and the transportation system that supported them. A way of life shifted. Employment in summer became rare and undependable. The newly instituted government social welfare programs became a major source of the dollars needed to buy manufactured goods, such as guns, ammunition, traps, and hardware, and basic store-bought foods -- flour, sugar, etc. These programs were mainly administered through the mail, making access to a post office an important consideration in the round of travel, especially after other sources of cash became scarce in rural Yukon.

Many young couples with dependent children from Ross River and other now-isolated areas left for the new Alaska Highway towns like Watson Lake, which promised a greater availability of jobs.

At the same time the legitimacy of the trapping side of the aboriginal economy came under threat from the territorial government's new trapline registration program. During the wartime period of high prices the resource had suffered from over-harvesting. Discussions about creating a registered trapline system in Yukon had begun in the early 1940s, but, ironically, registration was only initiated in 1951, after the demand for furs had plummeted (McCandless 1985). The Yukon system imposed a \$10 annual trapline registration fee. With the loss of both seasonal employment opportunities and fur markets a \$10 fee was a significant penalty added to the struggle to make a living. One of the few analyses available about cash income in native communities during this difficult period indicates that access to cash was so limited that the meagre family allowance payments was a principal source of cash (Honigmann 1951).⁴

Analysis of the impact of trapline registration in a number of Canadian jurisdictions indicates that many of the programs created severe dislocation and economic and social disruption for aboriginal groups. Among the effects, trapline registration often ignored existing native systems of management. Most significant, the programs introduced a

method through which an important part of the resource base for aboriginal economies could be lost to communities (cf. Weinstein 1979; Brody 1981; McCandless 1985; Pearce and Weinstein 1988).

Ross River community elders foresaw the consequence of trapline registration by individuals. Prices increased at the Ross River store due to post-War inflation and higher transportation costs. Low fur prices, the poor prospect of seasonal employment and the high costs of store bought goods made fur trade economics difficult. Many people stopped trapping seriously and sought alternative livelihoods, which generally meant moving to other areas. This was particularly true for the younger families. The elders were concerned that the younger families moving to Watson Lake would result in the loss of individually registered traplines. Two areas of the Yukon stand out on present-day Yukon trapline maps; Ross River and Old Crow traditional lands are registered as single, community traplines. During the mid-1950s, after Ross River Indians had been persuaded to register personal traplines, community leaders lobbied territorial wildlife officials to re-combine them into 3 grouped areas. At a later date, during the 1960s, the 3 blocks were combined into a single grouped-trapline covering most of the territory used by the Ross River Indian People during the mid-20th century.

D. A BRIEF HISTORY OF THE ROSS RIVER DENA

PART 2: REGIONAL CHANGES AND THE FARO MINE EXPERIENCE

Non-native Canada experienced buoyant economic times following World War II due in part to increased market demands for raw materials resulting from re-construction and the strategic needs of the Cold War. The southern Yukon became more accessible by the wartime construction of the Alaska Highway. Minerals were in demand and various governments looked optimistically at the seemingly empty map of northern Canada as the indicator of a vast store house of undiscovered mineral wealth.

Ross River Indians who moved to Watson Lake and elsewhere frequently found jobs associated with the mining industry. The highway towns were also nodes for geological exploration, which was in full sway during the early 1950s. Indians who took up residence in places like Watson Lake consequently had opportunities to learn basic prospecting skills. In addition, their bush knowledge was highly valued by professional prospectors.

The prospecting and mineral exploration that took place during the 1950s and the early 1960s, before the onset of intensive activities, was largely compatible with the Indian economy of the time. The work was treated as part of the seasonal round. Families had camped near the areas the men were working; and the supply of meat was part of household routine.

As the mine exploration and development intensified, some of the families which had moved away returned to Ross River. Fur prices remained low. However, seasonal employment was available from prospecting. The returned families joined the others in winter hunting and trapping.

Some significant changes had taken place. The village was re-located during the early 1960s. The old village was on the north side of the Pelly, at its confluence with the Ross River. The construction and re-opening of the South Canal Road had left the village isolated on the north shore of the river, with only a suspension foot bridge connection. The move to the southside of the river was promoted by the Department of Indian Affairs as a mean of providing easier access to services.

People continued to live in wall tents at the new site until a program for log housing was supplied by the Department. By the early 1960s most people had settled into houses in Ross River.

With the change to regular village residency, the seasonal round of movement for hunting, fishing, and trapping altered significantly. The village became the residential base from which people travelled to harvesting lands for varying periods of time (cf. Brody 1981; Dimitrov and Weinstein 1984). Rather than being a seasonal node for visiting and trade, the village became a centre from which people travelled to harvest and to which people returned after a hunting or trapping trip. Land use patterns shifted dramatically. Lands that could be efficiently accessed became more regularly used. Roads and good trails became important considerations for which areas remained actively in use. People still remained in bush camps for long periods of time, during the dry meat hunt, the salmon fishery, and for trapping, but there was an increased tendency to return to the village after the harvest.

People could make a living, even with the low fur prices because of the relative abundance of game in the area. Indians were generally poor, but had supplies of quality meat on their tables.

Family life on the land had also undergone significant changes as children began to attend residential school in the early 1950s. The period that school-aged children joined their family groups on the land was limited to summer vacations. With the construction of a school in Ross River, which signalled the end for residential schooling, family life in the bush during the most active harvesting seasons effectively came to an end. Mothers of school aged children had to remain in the village. For some groups, fall and winter camps were no longer based on family units.

The families who were attracted to return to Ross River by the increased employment possibilities and the possibilities of new housing and improved access made a living through prospecting in summer and hunting, fishing, and trapping the rest of the year. They re-joined their families at the seasonal harvesting round, sharing food and harvests, according to traditional custom.

1. The Development of the Faro Mine Complex

The first identification of lead-zinc deposits in the Faro area took place in 1953, when Al Kulan followed up stories of "Indians of the Ross River

Band, who told him about a rusty creek bank, which he staked after observing a lead-zinc mineral outcrop" (Macpherson 1978:116). Work on the property was limited to seasonal exploration until 1964, when increased funding came available from joint ventures and intensive claim staking and exploration got underway.

...In late 1965, the potential of the area became known. Rumours about the Anvil find triggered the biggest staking rush in the Yukon's history since the Klondike. More than twenty companies and many individuals flew in by helicopter at an expense of approximately half a million dollars, to stake claims in weather conditions of fifty and sixty below zero. Of the 15,708 claims staked in the Yukon during 1966, nearly 10,000 were in the Faro area. ... Over the next few years huge blocks of land were held for drilling exploration and speculative resale, while Anvil conducted an intensive exploration programme.

(Macpherson 1978:117,119)

In 1966 the nature of the project transformed from geological exploration to the planning of a modern mining complex, capable of ore extraction and transport to overseas smelters. Negotiation began with the federal government over financial assistance for power and communications, transportation to a Pacific port, and the construction of a townsite for mine labour. The Anvil Agreement was signed in August 1967. The overall objectives specified Territorial social and economic goals, in keeping with policies of northern development prevalent at the time (Zaslow 1988):

Her majesty wishes to encourage and support the proposed mining development in order to expand the economic activity of the Yukon Territory and to provide employment opportunities for Canadians, particularly those resident in the ... Territory.

(quoted in Macpherson 1978:123)

The federal government contributed to the development by taking responsibility for infrastructure, including construction of a power station, the road between Carmacks and Ross River, and 2/3 of the cost of the bridge across the Pelly River. The government also assisted in the development of a new town (Macpherson 1978). Construction of the mine complex began in the spring of 1967.

2. Changes to Ross River

The development was responsible for Ross River's rapid transformation from an Indian village, with service facilities limited to fur trade post standards, to a regional Yukon centre. Ross River became the early base for exploration and construction. The village population increased by about one-third during the summers of 1964 and 1965, adding about 100 white males to the 200 Indian community residents (Sharp n.d.; Sharp 1973).

Employment opportunities also increased for Indians, drawing back several of the families which had left in the 1950s. From 1965 to 1969, 5 exploration companies based in Ross River conducted summer surveys along the Tintina Trench. Indians were hired as line cutters and as assistant prospectors. Two mining analysis firms also operated out of Ross River during the summers, hiring a few local people (Macpherson 1978). In 1965 a Territorial road maintenance crew was established at Ross River. The new staff arrived with their families, further expanding the village population and providing an additional source of seasonal employment for whites and Indians.

By 1966 Ross River had become a boom-town. Ross River was the staging and transportation centre for the development, as well as a bed-room community for workers during the construction. An airstrip was constructed, various government offices were opened, and an RCMP detachment was established (Sharp n.d.; Sharp 1973). Between 1966 and 1975 the village saw an influx of outsiders and businesses to service the mine and the increased population. The day school was constructed in 1966, putting an end to River Indian children being sent away to residential schools. In the following year business enterprises in the village greatly expanded. The village could claim a bar, motel, cafe, garage, trailer court, charter air company, a second store and a band owned saw mill. "Each business was either owned or managed by white entrepreneurs who had entered the community since 1966" (Macpherson 1978:129).

Intensified interest in mineral exploration led to the re-opening of the North Canal Road in 1968. With the construction of the Robert Campbell Highway to Watson Lake, Ross River was transformed from an isolated Indian settlement to a cross roads town in an active mining frontier.

3. Impacts of the Development

The return of the families coincided with the development of the Faro mining complex during the late 1960s. At the early stage of development, impacts were seen as the price of employment opportunities and other benefits. Ross River Indians were experimenting with something new.

Impacts to land use commenced as access began to be restricted, ostensibly for safety reasons, during the exploration which followed the initial staking. The effects greatly intensified during the summer of 1965. As the mineral potential of the area became widely known, the area experienced year-round activity. Indian residency and use of an area varies seasonally, and in some cases areas in regular use are not visited year after year because of the rotational system of resource management. The early stages of mineral exploration has a similar pattern of land use and is attractive precisely for this reason and the benefits it provides. However, mine development is based on a pattern of residency more similar to permanent settlement.

The scale and nature of the effects changed radically as the mine complex entered the construction stage. The area became an industrial zone, with constant activity, as the pit was excavated, the associated works and the mill constructed, the townsite cleared, and the infrastructure installed.

During the early stages of the development Indians were seen by the outsiders as significant figures. They had desirable skills, a high degree of self-sufficiency in the bush, and they were the main human population in the area. As development progressed and the work force increased and the work became progressively technical, Indians became more marginal. The area took on the attributes of white settlement.

a. Village life

During the late 1960s and early 1970s Ross River was transformed into a ethnically-mixed community as mine service businesses and personnel moved into the community. Planners had expected Ross River to be replaced by Faro, but many of the newcomers considered the new town a preferable place to live (Sharp 1973).

A commentator who was on the scene at the time presented a two-sided picture of the quality of Indian life:

'The Ross River Indian Band is the last self sufficient group and, economically the most traditional in the Yukon.'⁵ This implies that concomitant with economic conservatism, this band has retained more of it's [sic] traditional cultural integrity than other bands in the Yukon. ... This band is mainly dependent upon traditional subsistence methods and native foods. The traditional social structure is almost intact, however, band council orientation [toward self-government] is beginning to take effect particularly among the young. The people are still semi-nomadic in the summer months and most are still strongly drawn to life in the bush. (Miller 1972:1)

And almost with the next breath the Indian side of the village is described as presenting:

a depressing image of extreme poverty and deprivation to the newcomer which makes credible the stories of the whites in the community who repeatedly tell you that "they are all on welfare," which I found out was not to be the case. On summer nights in the eerie twilight, the constant howling of the many dogs, the shooting of guns into the sky by the ever present drunks in the village makes for a nightmarish experience in this 'slum in the wilderness'. (Miller 1972:7)

The descriptions of the two sides of life in Ross River are likely very apt. They fit the descriptions of other subsistence-oriented Indian communities around this period which had suffered the stresses of resource development impacts (see e.g. Brody 1981).

The strains of village transformation into a mixed-ethnic centre, the impacts of mine development, and the dislocations of the new life patterns resulted in severe social problems. The band experience increased "drinking, open conflicts, violence, sexual exploitation, and ... the disintegration of some marriages" (Sharp n.d.:27). The internal problems were exacerbated by the influx of large numbers of transient white male labourers during the construction period. Many of the mine construction workers carried stereotypic images of Indians as victims and powerless. These attitudes combined with a freedom from social sanctions resulted in Ross River Indians being viewed as recreational objects. Women were seen as sexual objects and the men, when drunk, were seen as objects for abuse and violence. Raids by the construction workers to abduct women from the village are vividly remembered. The

band had faced this earlier, during the influx of thousands of military personnel for the construction of the Canol Pipeline. At that time, however, it was easier for women and children to hide in the bush until the raiders left the area.

The ethnically mixed village resulted in a change of power from Indians being relatively self-sufficient to Indians as victims. Many of the whites who settled in the village brought urban ideas, values and behaviour, including stereotypic images of Indians. Even the Indian children were involved in the disempowerment. At the new day school that the children of Anvil workers also attended, Indian children were the majority population. The parents of non-native children, however, demanded a southern school curriculum and were instrumental in getting the school principal, who was sympathetic to the differing needs of the Indian children, dismissed (Miller 1972).

b. Subsistence and land use

The subsistence economy was modified by the reduced mobility which resulted from village settlement. The development of a day school in Ross River in 1966 was a key influence in changing land use patterns. School attendance required that at least one adult family member remained in the settlement (Sharp 1973). Summer holidays became an important focus of family life in the bush, since families could move to the bush for an extended period (Miller 1972). The result was a shift in the timing of harvests as people struggled to make changes that would accommodate both village and bush life.

Younger men with dependents were constantly concerned about the situation of their families left behind in the village. Typically, mothers with school aged children remained in the village. Women with teenaged children could accompany their husbands for periods of time, leaving the younger children in the care of the older. Maintenance of a household in the village, however, was a source of constant anxiety for men in the bush. This resulted in frequent visits to the village to check on the general welfare of the families and that there was sufficient firewood to keep the houses heated.

The economics of bush life changed because of the increased costs for transportation. The use of camps close to the village and accessible from the road system increased. The new road complex meant that travel between village and camps could be much quicker. People could

Table 2. Indicators of Changes to Ross River Indian Life.
(data from McDonnell 1975).

	<u>Housing</u>	<u>Transportation</u>	<u>Households in the Bush and Town (Sept. - Dec.)</u>	<u>Household Incomes</u>
1967				
	Tents 11	Dogteams 21	Bushcamp 13	\$120-250/mo 12
	Houses <u>18</u>	Cars 0	Town <u>16</u>	less <u>17</u>
		Snowmobiles <u>1</u>		
Total	29	29	22	29
1974				
	Tents 1	Dogteams 5	Bushcamp 3	\$120-250/mo 30
	Houses <u>32</u>	Cars <u>10</u>	Town <u>30</u>	less <u>3</u>
Total	33	15	33	33

Good road access attracts both Indian subsistence harvesters and sports hunters and fishers. The network of roads, trails and cutlines opened the country to all users. Hunting and fishing have been promoted by the Territorial government and the Faro council as recreational opportunities (see e.g., Anon. n.d.), which is fundamentally in conflict with Indian subsistence economics.

At the time that a large white population was settled in the middle of the Faro region families' harvesting areas (and provided with a network of roads and trail for access throughout the entire area) there was no thought about competition over fish and wildlife on the part of government and corporate planners. This was a period when the extent of Indian rights to fish and wildlife harvesting had not yet been decided by the courts. Indians were convinced that there was a conflict, but it was difficult to convince officials.

Attitudes about hunting and fishing at the time were dominated by Euro-Canadian cultural traditions. Within this tradition fish and wildlife were either recreational resources or commodities harvested for sale. Fish and wildlife were not considered as the economic resources of aboriginal subsistence economies in part because subsistence was viewed through the "modernization/replacement" model of social change. Subsistence was not considered an economic activity in its own right, but as something people were forced to do until something better could be provided through northern development and job creation. The single exception was fur. Furs, because they were tied to commodity production and cash generation, were treated as an economic resource within the Territory and geographically allocated through exclusive use traplines. Consequently, no competition existed with the new Faro residents or visitors for furs because Ross River Indians were legally the exclusive fur harvesters in the region. Problems to Ross River trappers came from other sources (such as poaching).

There has been a continuing nervousness by the Ross River Dena about the tailings pond as a source of contaminants. The concern stems from a history of operational problems and accidents. From 1969 to 1975 at least a half-dozen leaks in the tailings impoundment system were monitored. There were seepages of high pH effluent, contaminated with elevated levels of lead, zinc and arsenic, into Rose Creek. In addition to the early routine operation problems there have been a number of major

failures of the tailings pond, resulting in large releases of effluent. In 1975 two dikes failed, allowing the release of 54 million gallons of tailings laden water. The following year highly toxic levels of cyanide were released. In 1979 another breach of the tailings pond resulted in a spill of 2.5 to 4 million gallons of effluent toxic to fish. The most recent incident took place in 1988, when 1200 kilograms of sodium cyanide were released into the tailings pond after an employee allowed a tank in the mill to overflow.

The concern about toxic substances influences decisions about where to hunt for food animals. Although a few trappers persist in the Faro development area, there are serious concerns about the consumption of animals or fish which may have been exposed to the tailings area or its outflow.

Disturbance is a very important factor in land use decisions. Perceptions of quality and the relative abundance of animals are only two of the considerations that go into land use decision making. The ability to harvest is linked to disturbance, since harvesting depends on the use of knowledge, cultural traditions, and personal experience; and disturbance limits the efficacy of these tools to predict animal movement and behaviour.

Ultimately, these questions are linked to larger questions, such as meaning or purpose in life. Ross River Indians do not simply harvest animals for food and furs. Eating wild meat and obtaining money from the sale of furs are part of the reason people use the land, but beyond their utilitarian function hunting, fishing, and trapping are a way-of-life and an expression of Indian culture and spirit.

c. Mortalities

The new roads, stresses of village life, the dislocation of some family groups from their traditional lands, and the rapid transformation into a marginal minority combined with the ready availability of alcohol was a deadly mixture. Alcohol had been a part of fur trade life since its early days. But the pattern of drinking was limited to trips to the post during the summer. Liquor was never available in unlimited quantities. This changed with the mine development. Public facilities for the purchase of alcohol became available in the region with the influx of mine construction workers. Alcohol was available at more than one outlet in Ross River and at Faro. As all of the stresses to life in Ross River

developed, extended periods of binge drinking became the rule. When people returned with cash from a job, alcohol would be shared with friends and relatives until the money was spent. If someone else returned with money the binge would continue. Drinking was a frequent reason for job loss (Miller 1972).

Deaths from a variety of alcohol related causes, mostly accidents, began in 1966.⁶ The problems began slowly, but became chronic during the early 1970s (Fig. 2). There was a single death in 1966 and then no further alcohol related deaths occurred until 1970. From that time to the present, death from alcohol-related causes has been a regular event for the Ross River Indian population. There has been one or more deaths from drinking almost every year between 1970 and the present. Alcohol-related deaths resulted from exposure and freezing, automobile accidents, house fires, suicides, and other causes. The early 1970s were a particularly tragic period due to the number of deaths. The rate of alcohol-related deaths declined somewhat during the late 1970s, but re-emerged during the late 1980s in a series of tragic deaths.⁷

An informal analysis of the sex and ages of the people who died from alcohol related causes during this period shows that most were men between 20 and 50. Males in their twenties were at greatest risk. There was a high incidence of deaths of members of families from the Faro/Mye Mountain/Blind Creek/Swim Lakes part of the band's territory. 82% of the fatalities were members of families from the affected areas (Weinstein 1992). This may be less of an indicator of impact than it at first appears. A majority of adult band members have a membership in those families through birth or marriage. Nonetheless, the proportion of alcohol-related deaths within this group following the mine development is startlingly high.

d. The failure to secure jobs for Indians

The prevalent attitude among social scientists, at the time, was that northern Indian communities would "modernize", given the opportunity. This concept of modernization represented a non-return voyage into the lifestyle and cultural values of Euro-Canadian society. This was equally the vision of progressive social change held by policy makers, that hinterland development represented opportunities for Indians to leave the ways of the past and become wage labourers and townspeople. The agreement signed between DIAND and the Anvil Mining Corporation regarding quotas for a native work force were an aspect of this policy.

It is the Government's desire where major mineral deposits are developed that the maximum employment and economic benefit should accrue to the region from the mining and processing of these deposits. The north should not be regarded simply as a source of raw materials which could be extracted with a minimum of benefit to the Territory. It is also expected that the Company will make special provisions for the training and employment of Yukon residents and will be able to draw heavily on the Indian population of the Territory. (DIAND press release March 1967, quoted in Macpherson 1978:128)

The Anvil Agreement specified that the company "would make a 'bona fide' effort to: 'employ competent local residents, particularly Indians and Eskimos, to the extent of 5 per cent of the total number of employees within the first year, rising to 10 per cent in the second year and 25 per cent in the fifth year'" (Macpherson 1978:128). The abject failure of the agreement, as described by Miller (1972) and Macpherson (1978), is an indication of both a misunderstanding of the nature of the problems the communities were facing and a lack of thought about the implementation of a preferred employment program.

The opportunities were seen differently by the native people. Rather than blanket replacement of one way of life and tradition with another, people attempted to find what would fit with the aspects of Indian life that were valued. Jobs at the mine were tried and quickly abandoned by most people as unattractive for many reasons, including the scheduling, discrimination, working conditions, etc. Other types of employment, particularly seasonal and part-time work, remained in demand.

Aboriginal employees, attracted from across the north, were 10% of the work force in the second year of operation, fulfilling the objectives of the agreement for that period, but declined to 1% afterward (Macpherson 1978). Benefits for Ross River Dena were even more limited. The Agreement did not specify any different considerations for the local aboriginal people, who experienced the direct impacts, than for other aboriginal northerners. A few Ross River Dena tried working at the mine, but most left quickly after becoming dissatisfied with the working and living conditions, particularly the social isolation. The work experience

was communicated to others, adding to the strength of bitterness about being victims of the mine development (Sharp 1973, n.d.).

The mine operation continued, aboriginal workforce or not. The agreement lacked sanctions for a failure to attract the intended native workers, and was not conditional on fulfilment of the quotas.

4. Recent History: Political Development

Traditional Kaska political organization was structured around the family and the hunting group. Within the group decisions were made by consensus, with limited delegation of authority. The changes which began during the 1960s required the rapid development of a delegated authority which could articulate with government and company agencies on behalf of the band population. At Ross River an elected chief and council came into effect in 1970s. DIAND instituted a Program for Band Development in 1971, which contributed funds for Band Councils to hire band managers and secretarial staff and to assume the administration of basic community works, such as welfare wood supply and garbage collection (Yukon Native Brotherhood 1973).

Recognition that the administration of government programs would not resolve the grievances and problems of Yukon Indian peoples led to the formation of a Territorial aboriginal organization, the Yukon Native Brotherhood, in 1968. The Brotherhood (whose name was changed to the Council for Yukon Indians [CYI]) received a mandate from all 12 Yukon bands to negotiate a land claim settlement on their behalf and submitted a statement of claim to the Government of Canada in 1973 (Yukon Native Brotherhood 1973). Negotiations of the Yukon claim began in the mid-1970s and arrived at an "interim-agreement" after about 10 years of discussions.

This agreement did not receive the support require for ratification and was rejected. The negotiation process began anew in the mid-1980s. Ross River was one of the bands which rejected the first agreement. Among the band's primary concerns were the wildlife and fish management arrangements and allocation formula. There was apprehension that the sustainability of the subsistence sector of the economy was potentially threatened because the agreement did not treat hunting and fishing as economic activities.

In the more than 20 years since the band council developed as an

administrative-political entity, the nature of its roles and activities have diversified. It has assumed increasing administrative responsibility for social, employment, and service programs. It represents the interests of Ross River Indians in dealings with the Ross River non-native population and Yukon and federal government agencies. It still represents the interests of the Ross River People in land claim negotiations. It is the owner of the Ross River Dena Development Corporation (RRDDC), created as the band's local business arm. It owns a share in Kaska Inc., the regional Kaska development corporation, along with 4 other Yukon and B.C. Kaska bands. It represents Ross River interests to the CYI, and within the Kaska Tribal Council [KTC], a trans-boundary political organization representing Kaska groups in Yukon and B.C.

The band has emerged as the major employer of Ross River Indians (Dimitrov and Weinstein 1984), both through administration of routine programs and through the constant search by band officials for other opportunities to obtain employment funding. Through RRDDC and Kaska Inc., it has attempted to enter into direct agreements with mining companies to obtain a share of the benefits of development. And as an outspoken voice in the environmental regulatory process, it has attempted to protect environmental and fish and wildlife productivity and control hazards to subsistence harvesters.

E. THE HISTORIC ROSS RIVER MIXED ECONOMY

1. The "Traditional" Ross River Aboriginal Economy

As was indicated above, the Ross River aboriginal economy has included food, commodity production and wage labour components since at least the early years of this century, and likely during the fur trade and gold prospecting periods of the last century, as well. Since contact with Europeans, Ross River Indians have exchanged commodities or labour for manufactured goods which were compatible with their way of life.

The same basic structure persists. Consequently, there is no difficulty in labelling the contemporary Ross River aboriginal economy "traditional". The nature of the manufactured goods has diversified. Ross River Indians maintain a double residential 'outfit', one for town life and the other for life in the bush. Needs for cash include electricity and telephone bills, as well as the purchase of technology for transportation between town and bush.

Due to the mixture of sources of income, the contemporary aboriginal economy has been labelled as "a mixed-economy" by social scientists. The mix comes from cash income and income-in-kind from harvested bush products. Cash income derives from a combination of employment and business earnings and payments from government social welfare programs. The 'traditional' sector is represented in cash income through the sale of furs and handicrafts. Some commentators have also argued that employment which uses bush skills and subsistence resources and which does not conflict the seasonal round of harvesting, such as guiding, are also part of the 'traditional' sector (e.g., Brody 1981).

Income-in-kind has enabled the domestic harvest side of the economy to be measured in a form which allows food harvests to appear in family and community accounts. The calculation is based on the 'replacement' cost of locally purchased food. For example, one kilogram of Canada goose might be made equivalent to the cost of one kilogram of chicken or commercial goose or duck at the local store.

Social scientists who have followed this procedure have, nearly universally, cautioned readers not to take the figures as literal translations of values. Aboriginal people have often indicated discomfort about possible mis-use of survey results. For example, income-in-kind

results appear insignificant besides the calculations of costs and employment benefits of multi-billion dollar resource developments, potentially inviting policy makers who rely on cost-benefit analysis models to trivialize aboriginal concerns about impacts. And food and materials harvests are inherently limited by a population's ability to consume, whereas cash earnings and commodity production are not limited by needs. Healthy aboriginal mixed-economies would show decreases in the relative importance of income-in-kind over time, as cash earnings increase, giving the false impression that the value of this sector has decreased. For this reason, and one other, evaluation of the importance of subsistence cannot be limited to economic accounting. The other limitation is the inherent falsity in the notion of replacement cost. Critics of this method say that valuation with store-bought food costs does not account for cultural values and nutritional differences.

Nonetheless, harvest surveys and income-in-kind data are the only tools presently available to make comparisons between the different sectors of the aboriginal economy. In the past, without this tool, the importance of subsistence harvests to aboriginal economics were ignored; and environmental and wildlife resource conflicts were not seen as economic issues.

2. The Economic Mix of the Early 1980s

A detailed accounting of the Ross River Kaska mixed-economy during the early 1980s was done as part of an impact assessment of the MacMillan Pass regional development proposals (Dimitrov and Weinstein 1984). The study had its origins in the band's unsuccessful attempts to obtain a seat on the MacMillan Task Force, a government and corporate planning body. In retrospect, from the perspective of later aboriginal rights understandings and attitudes, the persistent exclusion of local Indian representatives is difficult to imagine as part of the climate of the time. At the time government officials viewed Indian interests as no different from those of other residents; and the officials believed that they could adequately represent those interests.

Excluding band representatives from the planning body, however, served to further empower. Band members and representatives had already made a number of presentations at public hearings into the environmental impacts of development projects, including the Lysyk Inquiry into construction of the northern leg of the Mackenzie Gas Pipeline along the Alaska Highway and a Yukon Water Board hearing on changes to the

Faro mine's water permits.⁸ The band entered into negotiations with DIAND in 1982 over funding to conduct its own assessment of probable impacts. The study took a broad regional and historical perspective on impact assessment, following the methodology which had been developed by the Northwest Territories Dene and Inuit during the Berger hearings and used by the Union of British Columbia Indian Chiefs for the socio-economic impact assessment of the Alcan Gas Pipeline in Northeast B.C. (Brody 1981; Usher 1993; Weinstein 1993). The study also functioned as a band planning effort.

a. Results of the MacMillan Pass Impact Study economic survey

For the economic survey, questionnaires were administered to people 18 years of age or older who were on the CYI Ross River enrollment list and who were resident in Ross River or vicinity during 1981-82. 91% of the defined adult population were represented in the questionnaire results.

The results indicated extremely broad participation in the harvesting sector of the economy (Table 3). Participation in the food and fur harvest sector of the economy was based on the portion of the questionnaire sample who indicated that they had successfully killed game during the year. A separate series of questions was asked about fuels used for household heating.

The key to understanding the Indian economy is meat. Meat has historically been the primary food of northern native cultures. To people from agriculturally based societies, northern Indians consume what appears to be prodigious quantities of meat, although the amounts are less than in the past now that the diet is supplemented with store-bought carbohydrates and vegetables.

Animal harvest data were transformed into quantities of edible meat by estimating the amount of food provided by each of the resource species or species groups. Table 4 lists the estimates of average edible meat yields from resource animals. These estimates are based in part on figures used for the detailed James Bay Cree harvest study (JBNQHRC 1982) and in part on available western or Yukon data.⁹

The surveyed population harvested 62,988 kilograms of meat during the 1981-82 year (Table 5). After adjusting the figures for the total population, the estimate became 69,286 kilograms. Looked at another way, bush food harvests provided about 0.77 kilograms of meat per

Table 3. Participation in Harvesting During the Early 1980s.
(data from Dimitrov and Weinstein 1984)

FOOD AND FURS

Hunting	88.0%
Fishing-With Hook and Line	80.4%
Collecting Berries	70.1%
Trapping	57.6%
Collecting Roots	23.9%
Fishing-With Nets	23.9%
Collecting Wild Eggs	4.8%

FIREWOOD

Source of Household Heating Fuel.

Wood Only	86.0%
Wood With Oil Back-up	3.5%
Wood With Electrical Back-up	8.1%

TOTAL WOOD	97.6%

Electricity Only	0
Oil Only	2.3%

Table 4. Food Weight Values Used to Calculate Ross Indian Bush Food Harvests. (data from Dimitrov and Weinstein 1984)

<u>SPECIES</u>	<u>FOOD PORTION</u> (kilograms)
MOOSE	282.3
CARIBOU	81.8
SHEEP	38.6
BEAVER	8.2
LYNX	*3.9
MARTEN	0.0
WEASEL	0.0
WOLVERINE	0.0
FOX	0.0
WOLF	0.0
COYOTE	0.0
MUSKRAT	0.0
SQUIRREL	0.0
FISHER	0.0
MINK	0.0
OTTER	0.0
BEARS	95.5
GEESE	1.8
DUCKS	0.6
RABBITS	0.9
PORCUPINE	4.8
GOPHERS	0.5
GROUND HOGS	4.1
GROUSES	0.5
PTARMIGANS	0.3
LAKE TROUT	0.5
WHITEFISHES	0.9
SALMON	9.7
GRAYLING	0.5
JACKFISH	2.2
SUCKERS	0.7
LINGCOD	0.4

*Interviews indicate that only a small portion of lynx meat is consumed. Meat harvest figures were modified to take this into account.

Table 5. Ross River Indian Annual Meat Harvests During the Early 1980s.
(data from Dimitrov and Weinstein 1984)

	<u>Food Harvests</u>	
	(kilograms)	(pounds)
Big Game Mammals	40,527	89,159
Small Game Animals	5,375	11,826
Edible Fur Mammals	1,561	3,434
Waterfowl	335	736
Fish	<u>15,190</u>	<u>33,419</u>
Total questionnaire harvests	62,988	138,574
Harvest Adjusted for the Total Population	69,286	152,431

capita per day. These values are in line with those found by similar studies from other areas of the Canadian north. For example, in northeastern British Columbia where native harvesting research was conducted among three Indian Bands, meat harvests ranged from just under one pound (0.45 kilograms) of meat per capita per day to over two pounds (0.91 kilograms) (Brody 1981).

For comparison with other economic activities an income-in-kind dollar value for the harvests was calculated based on the retail costs of meats at the Ross River Band store (Tables 6 and 7). At first glance it may appear relatively simple to come up with dollar equivalents for meat harvests. This exercise, however, has a number of important difficulties. Prices of commercial meat vary with location, the quality of the product, and the way the meat is purchased. The variety in northern aboriginal diets comes from the different types of animals and the different muscle and organ meats that are eaten. A variety of commercially available meats were used for the conversions. The use of local retail costs for deriving an imputed substitution value for country foods is the procedure recommended by Mr. Justice Thomas Berger in his report on the Mackenzie Valley Pipeline Inquiry (Berger 1977:14). In practice, the retail costs are how people think about economic decisions. This is how most Ross River Indian people would buy meat in the absence of bush food harvests.

The estimate of the dollar value of meat from harvests of big game was based on beef prices; small game and fur mammal meat was based on pork; waterfowl on chicken; and fish on commercially caught whitefish. In this exercise error was deliberately placed on the conservative side whenever choices were available. For example, rather than selecting the more expensive commercially caught lake trout or salmon for a fish equivalent, less expensive whitefish was chosen. Table 6 shows the dollar value of commercial meats used for the conversions. The table lists the summer 1983 retail costs of meat at Ross River.

Table 7 shows the income-in-kind estimates for the annual meat harvest during the early 1980s. When adjusted for the entire band, income-in-kind from meat harvests becomes \$457,668.25. This is the value used for later calculations.

The land and its animals provide more in the way of economic returns than meat. Band members are active trappers and some of the furs and

Table 6. Cash Equivalents of Harvested Bush Meats During the Early 1980s.
(data from Dimitrov and Weinstein 1984)

	<u>Type of Commercial Meat</u>	<u>Dollar Values Per Pound*</u>
Big Game Mammals	Beef	\$3.40
Small Game Animals	Pork	\$3.37
Edible Fur Mammals	Pork	\$3.37
Waterfowl	Chicken	\$2.29
Fish	Whitefish	\$1.79

* Retail Ross River prices were the current summer 1983 prices in the Band store for beef stewing meat, pork chops, and whole frying chicken. The only fish for sale was salmon. A retail whitefish price was estimated by comparing FOB Whitehorse price for coho salmon with the prevailing price in the Ross River Band store.

Table 7. The Estimated Value of Ross River Indian Annual Meat Harvests During the Early 1980s. (data from Dimitrov and Weinstein 1984)

	<u>Food Harvests</u> (pounds)	<u>Dollar Values</u>
Big Game Mammals	89,159	\$303,130.40
Small Game Animals	11,826	39,853.62
Edible Fur Mammals	3,434	11,572.58
Waterfowl	736	1,685.44
Fish	<u>33,419</u>	<u>59,820.01</u>
QUESTIONNAIRE TOTALS	138,574	\$416,062.05
Adjusted Totals	152,431	\$457,668.25

hides are turned into saleable handicraft items. The questionnaire also asked a set of questions about the annual harvests of fur mammals during 1981/82. Information about the annual sale of handicrafts were obtained from the Band's records. In dollar value, lynx was the most important fur mammal trapped during the 1981/82 season, followed by marten and fox.

To arrive at an estimate of trapping income for 1981/82 fur harvest results from the questionnaires were multiplied by the average Yukon fur prices for that year. This figure was pro-rated to account for the approximately 10% of adults not represented in the sample. Annual fur sales earned band members an estimated \$211,786. In addition, annual handicraft sales were \$10,866.

Combining meat-dollar values, fur sales estimates, and handicraft sales gives a value for the Band's annual harvests during the early 1980s (Table 8). For the Band as a whole this was estimated at \$680,320 for the sample year. Thus harvests from the land during the early 1980s provided the Band with income and income-in-kind of substantially more than one-half of a million dollars per year.

The real value of domestic sector harvests and products exceed this figure. Estimates for the dollar income-in-kind for a variety of other harvests were not attempted because of the difficulty in quantifying production and making a conversion to dollars. These other products include firewood for domestic heating, food and medicinal plant harvests, and mukluks, mitts, moccasins, and snowshoes made for family use. Placing an imputed dollar value on household harvests of firewood would significantly increase the figure for the domestic side of the economy, since nearly all Indian households used wood as a household heating fuel (Table 3) and for 86% of the households wood was the only heating fuel. Most of the wood was cut and hauled by the users, some was purchased, and some cut by householders who paid to have the wood hauled. Because of the different arrangements and the difficulties of calculating accurate income-in-kind values for household wood harvests, firewood was not included in estimates of the value of the harvesting sector.

Besides the direct earnings and earnings-in-kind from the harvesting sector of the economy, during 1981/82 many Band members had seasonal jobs, a few had permanent jobs, and most families received

Table 8. The Total Estimated Annual Value of the Domestic Sector of the Ross River Indian Economy during the early 1980s. (data from Dimitrov and Weinstein 1984)

Food Harvests	\$457,668
Fur Sales	211,786
<u>Handicraft Sales</u>	<u>10,866</u>
 Total Value	 \$680,320

payments from one or more government transfer payment programs. In addition, the CYI operated an Elder's Benefit program for people 60 years of age and over.

Annual earnings from wage labour for the survey sample totalled \$548,072, or \$602,879 for the entire band when corrected for unrepresented adults.

Income from transfer payments came from a number of federal and territorial government programs, and the CYI elders program. Information about income from unemployment insurance, family allowance, and the child tax credit come from questionnaire data. Information about income from federal government old age pensions, YTG pension supplements, CYI elders benefits, social assistance, and guardian allowances came from Band Council records. As before, questionnaire information was pro-rated to account people not interviewed. Annual income from transfer payments during the early 1980s was estimated at \$378,276 (Table 9).

To arrive at a profile of the Band's annual income during the early 1980s estimates of earnings from each of the sectors of the economy were combined. Annual income/income-in-kind was estimated at \$1,661,475. Of this, approximately 41.0% (\$680,320) came from the harvesting sector of the economy; 36.3% (\$602,879) from wages; and 22.8% (\$378,276) from transfer payments.

These figures become very abstract when we consider the day to day lives of people. What after all does an annual community income in excess of one and a half million dollars a year mean? From the above calculations we know that harvests returned approximately .77 kilograms of meat per capita per day. This type of figure has some meaning in the day to day lives of Ross River Indian people. Looking at the overall income figures in a similar way, the Ross River Indian mixed cash and harvesting economy provided a per capita income equivalent to \$6,837.34 and of this the domestic sector of the economy -- hunting, fishing, and trapping -- provided 41%. The average per capita income for Canadians during 1981 was \$9,530.20; the 1981 per capita income for Yukoners was \$11,997.30 (Glen Grant, Dept. Economic Development and Tourism, YTG, pers. comm.). Without the harvesting sector of the economy the per capita income of Ross River Indians would have been only \$4,037.67.

Table 9. Ross River Indian Band Income From Transfer Payments During the Early 1980s. (data from Dimitrov and Weinstein 1984)

Questionnaire Data	Questionnaire <u>Total</u>	Estimate for <u>Total Band</u>
Unemployment Insurance	\$73,602	\$80,962
Family Allowance	30,556	33,612
Child Tax Credit	28,126	30,939
 Band Record Data		

Federal Pensions		36,000
YTG Supplement		14,400
CYI Elders Benefits		42,408
Social Assistance to Employables		42,241
Social Assistance to Unemployables		75,388
Social Assistance Special Needs		6,487
Guardians Allowance		<u>15,839</u>

 ESTIMATED TOTAL TRANSFER PAYMENTS		 \$378,276

3. The Source of Wage Labour Employment

Besides economic information, the questionnaire also provided insights into the relative importance of various employers and to the employment patterns during the early 1980s. The band itself was by far the most important employer for Ross River Indians (Table 10). Fully 50% of the 78 jobs held during 1982 by the people who completed the questionnaire came from Band run programs. Federal and territorial government agencies were the next most important employers, providing 23% of the jobs. Other employers included local Ross River non-Indian businesses, outfitters, Indian businesses, the Church, mining companies, and the CYI and other private, non-profit institutions. Local Ross River businesses provided about 13% of the jobs; of these 5% were generated through Band members' businesses and 8% by local non-Indian businesses. Mining companies provided only two direct jobs, a slashing job for Yukon Barite and a truck driving job for the Faro Mine, although it is likely that some of the employment for local non-Indian businesses were related to the mining industry.

Table 10 also shows a breakdown of the contribution of the different categories of employers to the overall questionnaire employment earnings. The number of jobs are not necessarily related to earnings, since many of the jobs were seasonal and of short duration. Differences in the figures for percent of jobs and percent of contributions to Band-wide employment earnings in the table generally have to do with the duration of employment. For example, the contributions of government agencies and non-profit institutions to Band-wide employment earnings were significantly greater than the number of jobs they supplied. This was due to most of these jobs being long term or permanent. The converse was true for local non-Indian businesses, outfitters, band members businesses, churches, and the mining companies. Many of the jobs for these employers were short- or part-time.

Most of the jobs held by men were of short duration, lasting between a month or less and 6 months (Table 11). Most of these jobs were seasonal employment during the summer and fall months, with a scatter of jobs during the spring. There were very few during the winter months. Men held few longer-term or permanent jobs (10-12 month's employment during the year were considered as permanent employment). Men's longer-term or permanent positions were primarily with Yukon Territorial Government agencies. Women, on the other hand, had

TABLE 10. Types of Employers and their Relative Importance in Providing Jobs and Income for Ross River Band Members in 1982.

(data from Dimitrov and Weinstein 1984)

Types of Employers	Number <u>of Jobs</u>	Percent <u>of Jobs</u>	Percent of Employment <u>Earnings</u>
Ross River Indian Band	39	50%	50.1%
Governments (YTG and Federal)	18	23%	27.8%
Local Non-Indian Businesses	6	8%	6.4%
Outfitters	5	6%	3.5%
Band Members' Business Enterprises	4	5%	3.0%
Church	2	23%	0.2%
Mining Companies	2	3%	2.6%
CYI and Other Non-profit institutions	2	3%	6.5%

TABLE 11. Duration of Jobs Held by Ross River Band Members in 1982.
 (data from Dimitrov and Weinstein 1984)

<u>Duration of Employment</u>	Numbers of Jobs	
	<u>Men</u>	<u>Women</u>
1 month or less	19	2
2-3 months	19	3
4-6 months	16	2
7-9 months	4	0
<u>10-12 months</u>	<u>3</u>	<u>10</u>
Total Number of Jobs	61	17

considerably fewer jobs, but a higher proportion were long-term or permanent. Most of the longer-term jobs held by women were with the Band Council.

4. Some Indicators of the Economy in the 1990s.

The Ross River band economic profile for the early 1980s is a very rare piece of information. It resulted from a major research effort by the band, trying to protect its land and resource interests when confronted by plans for regional development. The present research was too limited in scope to permit a quantitative update of the economic information. Rather, a brief questionnaire (appendix 1) was administered to Ross River households with the objective of deriving some indicators to gauge if the data from the early 1980s are still relevant to the band's mixed-economy in the 1990s. The results of the 2 studies are, of course, not directly comparable since they employ different methods.

The 1990s questionnaire was divided into two sections. The first part asked a broad question about the way that household members contribute to the livelihood of the group. This question was designed to elicit people's perceptions about how they earn a living, in the same way that asking "What do you do?" in an urban area would result in answers like "I'm a stock broker" or "I'm a bus driver". The second set of questions asked about sources of income and income-in-kind during the past 2 years. The questionnaire was administered on a household basis, with the objective of complete coverage. In the time available for questionnaire administration 76% (65) of an estimated 85 Ross River aboriginal households were surveyed. In all, information about the livelihood identity and recent economic activities of 134 band members 15 years and older were obtained.

a. Livelihood Identity

The largest number of people, the vast majority of interviewed band members, identified themselves as hunters and fishers (Table 12). A smaller proportion considered themselves trappers, but this still entailed about 1/2 of the men and about 1/3 of the women. Fifteen percent indicated that they considered themselves wage earners and 3% considered themselves business people.

Aboriginal households are more appropriate units of analysis than individuals, for reasons discussed above. Eighty-three per cent of the households included one or more persons who considered that their

Table 12. Ross River Indian Perceptions About How They Make a Living in the 1990s.

	MEN AND WOMEN N = 134	MEN N = 66	WOMEN N = 68
HUNTING	69%	79%	60%
FISHING	66%	71%	60%
TRAPPING	43%	53%	34%
OTHER HARVESTING	5%	5%	6%
EMPLOYMENT	15%	15%	15%
BUSINESS	3%	3%	3%

primary livelihood was derived from subsistence activities. The questionnaire does not provide information about exchanges and distribution of bush food harvests. It is likely that if this information were available, many of the other households would also fall within the subsistence livelihood envelope.

Women in Ross River are involved in subsistence activities as harvesters in their own right and in the butchering, preservation, processing, and distribution sides of this sector. In many subarctic aboriginal communities harvesting by women is traditionally limited to fish and small game animals. Ross River Dena women also hunt big game animals and are active as trappers.

b. Sources of Income

The results of the questionnaire survey indicated a similar mix of economic activity during the 1990s as found during the earlier research (Table 13). Nearly all households fished and hunted. Only one-third of households and 25% of respondents were involved in the trapping side of harvesting.

The incomes of most households came from a combination of sectors. Some had one person whose primary economic activity was harvesting, another person with a full-time job, and a pensioner. In other instances, one person had seasonal employment, received money from unemployment insurance and hunted, fished and trapped. The data indicated many combinations, but nearly all households combined income-in-kind from subsistence, with some employment, and income from a major transfer payment program.

In many cases each source of income came from a different person. There is no data on how Ross River Dena combine their various sources of income within households or, as may happen, between households. This is equally true for other aboriginal communities.

Economic management is linked to social issues and, ultimately, to community health. It is clear from the limited economic accounting available from the Ross River research that the economic functioning of households requires a high degree of cooperation and social organization. How aboriginal households manage their economics is an important research question; and it may provide useful indicators for social health and quality of life of aboriginal communities.

Table 13. The Mix of Economic Activities in the Ross River Aboriginal Economy During the 1990s.

1. 1992-93

	number of people <u>in sample</u>	proportion of people <u>in sample</u>	number of household <u>in sample</u>	proportion of households <u>in sample</u>
SUBSISTENCE SECTOR				
Hunting	101	75%	57	88%
Fishing	94	70%	54	83%
Trapping	34	25%	23	35%
Firewood	41	31%	33	51%
Other Plants	47	35%	35	54%
Handicrafts	29	22%	24	37%
WAGE EMPLOYMENT SECTOR				
Full time	24	18%	21	32%
Seasonal	35	26%	27	42%
Less than 1 month	7	5%	5	8%
MAJOR TRANSFER PAYMENT SECTOR				
Social assistance	25	19%	19	29%
Unemployment	15	11%	14	22%
Old age pension	15	11%	14	22%
BUSINESS SECTOR				
Business income	5	4%	5	8%

2. 1991-92

	number of people <u>in sample</u>	proportion of people <u>in sample</u>	number of household <u>in sample</u>	proportion of households <u>in sample</u>
Harvest Sector	104	78%	56	86%
Wage Sector	64	48%	38	58%
Major Transfer- payment Sector	55	41%	41	63%
Business Sector	4	3%	4	6%

PART II:

APPROPRIATE DEVELOPMENT AND THE NEEDS OF THE ROSS RIVER ABORIGINAL ECONOMY

F. ECONOMIC GOALS AND NEEDS

The preceding sections describe what has been and what is. They do not address the question of economic needs and the social health of the community. Indicators for social health are lacking at this writing, other than the disturbing death statistics shown in figure 2. The high rate of deaths due to alcohol-related causes have continued into more recent years.

It should be kept in mind that Ross River is an 'impacted community'; that is, it is a community which has experienced the effects of a resource mega-project development. A full accounting of the effects of the development, according to current thinking about resource development impacts on aboriginal communities (see e.g., Usher and Weinstein 1991; Weinstein et al. 1992; Usher et al. 1992), has never been done, although several more limited reports have indicated the nature of the impacts (Sharp n.d., 1973; Weinstein 1992) and the persistence of, at least, effects on land use.

The previous section describes how Ross River Dena make a living. It does not, however, address the adequacy of that living, or whether people find satisfaction in their efforts, or whether it is an easy living or a difficult one. The current section focuses on perceptions of need and wants in the community. The information comes from discussions with Ross River Dena conducted during the summer of 1993. Efforts were made to include as broad a gender and age representation as possible.

1. Community Economic and Social Goals

Jobs were on everyone's mind during the summer of 1993. Employment was in short supply due to a combination of reduced government funding for programs and a depression in global mineral markets. Regional mining operations were shut down, except for basic maintenance. Curragh Resources Inc.'s Faro mine was closed, the town's population was greatly reduced and the hotel boarded up. The gold mine on Ketza Creek, formerly owned by CANAMAX, was closed, as was the joint

Curragh-Kaska Inc. Sa Dena Hes lead-zinc mine near Watson Lake. Work for the support and exploration side for the mining industry, which was the traditional support for non-aboriginal Ross River residents, was in very short supply.

Ross River is a community with a strong land-based identity. Subsistence is much more than an economic activity. It is the basis for historic and cultural continuity as an aboriginal people. And it is the means that most Ross River Dena find satisfaction in their lives. But the modern adaptation for living off the land requires significant amounts of cash to purchase transportation technology and fuel to operate it. Filling the double gas tanks of a pickup in Ross River costs about \$100.

During the last few decades Ross River was essentially a 'mining camp'. There was a fairly dependable seasonable cycle of summer employment and in the winter people went to hunting/ trapping camps. This kind of cycle does not operate any more. Summer employment is variable and less regular; there is less camp life in winter. Trapping is currently in decline due to a year-by-year drop in fur prices. There were few Ross River Dena trapping during 1992-93, and those were only trapping locally. Fur prices are an incentive. Only a few elders treat trapping with the regularity of an occupation; and the more prominent of these are getting too old to continue. Other people trap when fur prices are high enough that they can earn a significant amount of money from a few furs.

Elders are concerned for their children and grandchildren's ability to make a living. Many of today's elders had to leave Ross River for the highway communities during the 1950s because of the lack of jobs and low fur prices. They are concerned that the methods which they relied on to earn cash, trapping and seasonal work, will no longer provide adequate cash revenues for the younger generations. Experience has certainly proved that the fur trade and mining are not reliable over the long-term. Most people who come from outside leave when the economy does not support them. Elders and other community members are looking for economic solutions which allow Ross River Dena to continue inhabiting their traditional lands.

There is a general consensus among the Ross River Dena that the appropriate forms of development would provide stable jobs, independent of downturns in global commodity economics, and would treat the

environment gently. Environmental disturbance is a major concern, as are changes in water quality and the quality of harvested meats and controlling access of outsiders onto traditional Ross River harvesting lands.

Women, in particular, feel that economic development cannot be treated separately from social needs. The two are inextricably tied together. Lack of jobs results in social problems (although jobs by themselves are not a solution, witness the problems of alcohol abuse of people with jobs); and people with social problems or disabilities may not be in a mental or physical state to take them or to perform. Social service jobs are, therefore, the most desirable forms of employment. They would like to see the creation of employment that provides social development benefits as well as income.

Many women emphasized the importance of education, not simply for jobs and solutions to immediate needs, but as part of the problem and the long-term solution. They acknowledged that education and skills levels are generally low. The feeling is that both of these should be priority areas for the band and that employment would ideally concentrate on these critical areas of need.

However, they also emphasized that education begins in the home. This is the means that people become knowledgeable about their cultural traditions. Without healthy families, social problems reproduce themselves. The pressures of identity and making a living, and the cultural conflicts with Western education systems and values, all of which are very intense for young adults, often stop people with young families from seeing the linkage between healthy family life and education and healing social problems. The women felt that the education needs to combine the traditional with western-type school education. It has to come from the home and from the school. Native resource people/teachers are in great need for both their unique perspective and as role models for youth and others. The women emphasized that education should be at the heart of development: that basic management skills are necessary for planning and budgeting at all levels of life, from household livelihood and decision making to community decisions about cash and natural resources management.

There was a lack of enthusiasm for job creation from mining and forestry development among women, due primarily to environmental concerns

and the experience with the impacts of previous developments.

Men, on the other hand, tend to be more in favour of resource developments, *if* they meet local aboriginal standards for environmental quality, do not result in a loss of local control and provide employment opportunities. There is considerable resentment about past developments providing benefits to outsiders and costs to the aboriginal inhabitants. Although men are interested in support work for mines, such as road construction and maintenance, simple jobs would not suit their goals. There is considerable interest in contractual work, but there is a strong feeling that discrimination against First Nations members in the past has been too easy and that they are being offered the contracts that others do not want. To rectify discrimination and keep local control, some people suggested a right of first refusal for contracts on First Nations homeland and a change to negotiated contracts from legal tendering.

Another area of economic development of interest to men is local service business. A band member already operates a business service and computer training business. Local services, such as small motor repairs, are other possibilities which could create employment and satisfy local needs and not conflict with values and interests.

The youth we spoke to had differing opinions. The goals they mentioned varied between leaving Ross River in favour of a highly material life, for some teenagers, to goals very much similar to their elders, for other teens and young adults in their 20s.

People in their early 20s and other teens were in agreement with the future importance of subsistence; that access to wild meat is both an economic necessity and part of the culture and expression of the Kaska. Social service jobs were considered most desirable. The youth agree with their elders that experience with the mining industry makes it suspect as a desirable method of employment. The conclusion was that mining is only attractive when there are no other jobs and people are in need, but the environmental risks and conflicts with Dena values make mining a very unattractive trade off.

Logging was considered more favourably. There were concerns about rates of cut exceeding sustainability limits, but the deeper doubts about logging were aesthetic. Extensive clear cuts simply look ugly and spoil

peoples' perception about the quality of the environment.¹⁰

Generally, concerns for damage to quality of the environment is a limit on the kinds of development that people of all ages and both genders want. There is also a general consensus that with regard to economic development wildlife must come first. There is a deep concern that jobs based on government programs or resource economics are fragile and undependable, and that too great an economic dependence on these sectors will reduce the self-reliance of the Ross River Dena.

And there is a fundamental distrust that this view about the importance of environment and wildlife is not shared by the people who presently make the decisions. The Kaska feel that non-natives, including present policy makers, tend to see wildlife as another resource which can be turned into profit or recreation. For the Kaska wildlife are the central focus of their historical culture as well as a primary economic resource. The Kaska also feel a conflict between their own standards of environmental quality and Canadian standards. For example, Ross River Dena have abandoned drinking from some streams whose water conforms to Canadian drinking water quality standards. Kaska standards for water quality, which are non-quantitative, are based on taste and the use of water for washing. The absence of consideration for aboriginal values by agencies which developed the tests for drinking water quality is the kind of indicator that leads to the Kaska's belief that they need to be in control of decisions which affect the local environment and animals.

2. Ross River Dena Strategy for Reaching their Economic Goals

Several broad agreements about economics are available within the band: preservation of environmental quality and productivity are important as economic values (as well as being cultural values); the continuing ability to hunt and fish are important economic values; and band members need opportunities to earn incomes. In addition, the continuation of the ability to live on and enjoy the traditional territory as Ross River Kaska is an important cultural constraint. The goals that follow are for development opportunities which provide cash incomes for band members, but which do not negatively affect fish and wildlife productivity or the ability to harvest and which do not create undue disturbance which prevents people from living on the land according to the modern adaptations of Kaska traditions.

The band approached these goals on a broad strategic front, including a mixture of political, environmental, economic, and social development. The approach combined long and short-term planning. Long-term planning focused on the settlement of Yukon land claims. As mentioned above, the band has been at the negotiating table for over 2 decades. The process has been very long and, because the Ross River Dena are concerned that the current agreement structure will not preserve the economic and cultural values outlined above, specific negotiations with the Kaska may be a long second stage. However, without a settlement the band lacks a significant pool of money and is dependent on government programs for funding.

The continual needs of band members and the role the band has taken as the most important employer of its members, has obliged the band to be creatively opportunistic in their short and mid-term economic approaches. Band officers are on the constant outlook for programs (generally government programs) which can be used to create jobs. Program funding is applied as broadly as possible, taking both the ability of people to do the job and their families' economic need into account. The priority is more to distribute cash to people in need than the objectives task objectives of the funding agencies. The two are not necessarily incompatible, of course. But sometimes the immediacy of peoples' needs and restrictions of program schedules do not give the time to thoroughly consider the implications and problems of particular programs or conflicts with longer-term goals. Dependency on government programs, which are subject to change to meet others' agendas, makes it very difficult for the band to keep on its own course.

Consequently, a major part of the long-term strategy has been political development, in a broad sense. This part of the strategy has operated both within and independent of the Yukon land claims process. The band has been outspoken about their rights as a First Nation since the Trudeau-liberals' policy change about unextinguished aboriginal rights.¹¹

On environmental fronts, which with subsistence-based economies are equally economic fronts, the band and band members have been active in the public review of environmental impacts of resource developments ever since impact assessments and public hearings have become part of the Canadian regulatory scene. Presentations were made at early dates in Canadian environmental and socio-economic impacts assessment history to Environmental Assessment Review Panels [EARP] and to

Yukon Territorial Water Board hearings. And, as mentioned above, there was a lengthy fight during the early 1980s to gain a seat, and the recognition of the band's environmental interests, on the Macmillan Pass Task Force.

Although the band is far from satisfied that its legitimate interests are being taken into account within the current regulatory arrangements, the long history of being a squeaky-wheel in the regulatory process combined with recent aboriginal rights legal decisions, has resulted in the Ross River Dena Council being on the distribution list for development impact information about resource proposals and development licensing within the Ross River territory. Being able to act on these changes, however, requires a staff and regular, dedicated funding for these purposes. Rather, present limitations forces the band to treat the environmental regulatory process as continuing brush fires. The land claims staff, already over-burdened by negotiations and other claims needs, have the responsibility for reviewing the flow of letters and memos for immediate threats, only responding if urgent problems are identified.

With regard to economic development, the Ross River Dena Council owns the Ross River Dena Development Corporation [RRDDC]. The RRDDC was created in 1982 as an independent financial institution to manage the monies expected from the land claim settlement. After 5 years of waiting for its original mission, the RRDDC was transformed in 1987 into the band's business and job creation agent. RRDDC, as an active development corporation, had a mixed agenda which included the training and up-grading, the creation of jobs, generating a profit, and promoting band businesses (RRDDC 1989). Specifically, the RRDDC's longer-term goals include:

- the creation of employment and career opportunities;
- increasing the band's self-reliance through reducing dependence on outside funding sources;
- to promote business investment opportunities which would aid the band in directing the economic development process;
- aiding band projects so they are in mutual support of each other;

- promoting band and band member owned businesses;
- providing a service and financial environment for businesses owned by band members; and
- to make profits on investments.

Overall, the RRDDC was to operate as a planning and coordination agency for band and band member business ventures. As a business, the corporation was interested in joint ventures with existing businesses and possibly with acceptable resource developments. As a job creation agent, the intention was to identify 'strategic' businesses and developments on Ross River Dena lands; enter into employment agreements; and monitor both the compliance with the agreement and job success of band members.

The band is also a member of the Kaska Tribal Council [KTC], a trans-boundary regional organization, representing Kaska bands in Yukon and British Columbia. Concerns that inequitable benefits would create social divisions between Kaska communities led the Kaska Nation to form its own regional development corporation, Kaska Inc. (see section J).

G. ECONOMIC OPPORTUNITIES AND PROBLEMS

The mid- and late 1980s was a very active period for the Ross River Dena. They had been assertive in regional development issues, through both the land claim and the project review and resource development assessment processes. In both forums, the band had given notice to other parties of their continuing legal and economic interest in their historical environment and its wildlife and fish resources; and they had given clear notice of their intention to benefit from any future resource developments.

The first opportunity to carry through on the policy of benefits from resource development on traditional Ross River lands came with a proposal to open a new gold mine about 65 kilometres from Ross River, on the Ketza Drainage. Canamax met with band representatives during 1987 to discuss employment opportunities from their proposed Ketza Mine. The Ross River Dena Council commissioned a study of the band workforce job preference, educational level, and skills (Westcoast Information and Research Cooperative 1987). And Canamax provided a statement of jobs that would come available from the development of the mine (Sellmer 1987: included as an appendix to Westcoast Information and Research Cooperative 1987).

1. Human Resources

a. Formal Education and Employment Skills

The Ross River Workforce Survey (Westcoast Information and Research Cooperative 1987) provides a comprehensive portrait of band formal education, employment experience and skills training to 1987. The research was done with blitz-speed ("...2.5 weeks for questionnaire design, administration, analysis and report writing....") to take advantage of the "opportunity".

Questionnaire results indicated very high levels of unemployment. Fifty-one per cent of adults (43 of the 84 adults between 18 and 55 who were interviewed) were unemployed in April 1987; and a week earlier two seasonal employment projects had hired 15 men.

The results also indicated that the basic employment patterns in 1987 was similar to those described by Dimitrov and Weinstein (1984) for the early 1980s. Seasonal employment was the pattern for men. Although

a greater proportion of women had full-time, year-round employment, there were higher levels of unemployment among women of all age groups, generally. Mens' employment was primarily a mixture of carpentry and labouring jobs, while women held most of the band staff positions and were employed in home care and janitorial positions (nearly all of which were connected to band administrated projects).

One of the problems facing band employment is the low level of formal education. The 1987 questionnaire results indicated that only 4 people had completed grade 12. (Since then there have been a few more high school completions.) The results indicated that grade 9 was a gate; there was a high rate of school dropout, for both genders, after grade 9. Only 23 of the 84 people surveyed had completed grade 10, "which is generally considered a minimum for many types of occupational training" (Westcoast Information and Research Cooperative 1987:6). The researchers voiced concern about the adequacy of the educational system, since they found that the rate of completion among young people was only marginally higher than in older age groups, especially for the men.

Band members had taken a variety of training after public school. Some of this was school upgrading and some skills training. One person had been to university. Eighteen women were taking training programs in 1987: 2 were in regular high school; 12 in upgrading to high school grades (10,11, and 12); and others were taking courses in language, computers and community health. Another 9 women had taken upgrading prior to 1987. Three men were in upgrading programs in the spring of 1987; and 12 others had taken prior upgrading. Only 2 of the 15 had been in courses above grade 10. Seven men had been involved in apprenticeship programs: 6 as carpenters and 1 in millwork/joinery. Only one, the person who had taken the millwork apprentice program, had finished.

Men and women had also taken a mixture of vocational training programs, including basic carpentry (9 men and 1 women), air brakes (2 men), small engine repair (1 man), fire fighting (1 man), heavy equipment (1 man), janitorial (1 man), camp cooking (8 women), community health (1 woman) and life skills (1 woman). In addition, 2 women have taken "para-professional (technical) training - one as a community health worker and one in contract administration" (Westcoast Information and Research Cooperative 1987:7).

On-the-job training, however, accounted for most of band members' employment skills. There is a wide variety of experience, including carpentry/construction, fire fighting, slashing, prospecting, small engine repair, flag person, radio, first aid, surveying, blasting, band management, logging, heavy equipment operation, and painting for men; and bookkeeping, clerical, welfare administration, radio operation, secretarial, store management, post office management, carpentry, community health work, basic education instruction, native language instruction, waitressing, band management and housing administration for women.

b. Kaska Knowledge

Of course, a catalogue which is limited to schooling and skills based on Euro-Canadian work categories misses the broad aboriginal and specific Kaska knowledge and talents. It creates a rather depressing social picture. If left as a list of knowledge and skills categories which derive from another culture, it only serves to undermine the self-confidence and self-esteem necessary to create the synthesis of traditional and modern toward which many aboriginal groups aspire.

Where northern aboriginal people excel is in bush and communal knowledge and skills. These are matters most often taken for granted. They are not catalogued by Kaska and are not easily recognized by outside observers. Kaska skills are not easily conceptualized because of how they operate and how they are traditionally taught. Traditional aboriginal knowledge tends to be integrated and linked. Traditional life is not separated into work and family life or education versus recreation.

Traditional aboriginal knowledge and its practice focuses on the welfare of the group. The land/resource aspects of the knowledge are part of modern life for the more traditional northern aboriginal groups. The knowledge includes how to make a living from one of the most demanding environments on the planet.

More than bare knowledge of resource harvesting and processing techniques is required. The history of occupancy and the intention to continue inhabiting traditional lands means that use must combine satisfaction of short-term or immediate needs with considerations of long-term sustainability. Aboriginal conservation often takes a different shape than its western counter-part. The focus among many university

trained wildlife managers is a steady wildlife crop on a species by species basis. In aboriginal practice, resources are managed in this way when they are sufficiently productive to take care of family needs, but when not alternative techniques, such as territorial rotation or "pulsed" harvesting come into practice. "Pulsed" harvesting is the form of management used in some northern commercial fisheries, where fish productivity of lakes is limited. Lakes are fished below an annual sustainable level and then left fallow for a number of years to regain their populations before being fished again.

Above all, aboriginal knowledge and skills includes the preservation and the 'reproduction' of the social group. The Kaska do not go into the bush or, more generally, live as isolated individuals. Economically and socially they operate as a group. Kaska skills and knowledge included methods to avoid or manage conflict which, in the montane sub-arctic environment, could place the whole group at risk. The change from camp to village-centred life has stressed the methods that worked in the past. Modern methods of conflict management require new adaptations, building on traditional values and understandings.

2. Non-used or Under-utilized Natural Resources

The natural resources of the Ross River were briefly outlined in section B.

The regional mining and infrastructure developments planned during the early 1980s were caught in the economic changes of the 1980s recession and never took place. The Faro Mine closed, at the time, and went through a change in ownership from Cyprus Anvil to Dome Petroleum and then to Curragh Resources, the owners in 1993. Consequently, the large mineral deposits on the North Canol and in the MacPass region remain in a state of exploration; and the hydro-electric potential of local rivers also remain.

By 1993, the major lead-zinc deposit of the Faro Mine complex had been depleted, and Curragh's planning and development efforts switched to a number of smaller deposits on the nearby Vangorda Plateau, at the base of Mye Mountain, until mining operations ceased due to the low levels of demand in global mineral markets.

Portions of the region have been heavily prospected and explored. Third-party mineral claims cover much of the more promising locations on the Ross River Dena lands. A number of smaller mines (all closed at

the time of writing) operated during the late 1980s and early 1990s. The Ketz gold mine employed more than 80 people. A small coal strip-mine was run as a non-native family operation near Ross River, producing coal for drying the Faro mineral concentrate.

There is a limited timber resource in some of the valley bottoms, but the growth rate of trees are likely very slow due to the severe climate, suggesting that the merchantable forests would supply only a restricted annual production if they were to be harvested in a sustainable fashion.

There has been a decrease in trapping effort in recent years due to a combination of low fur prices, high costs of transportation, and health problems of the elders who have been the band's most consistent trappers. The decrease in trapping, however, has likely resulted in increases in the populations of some fur mammals.

3. Scope, Limits, and Needs for Expanding the Use of Natural and Human Resources

The RRDDC development strategy (RRDDC 1989) examined the question of human and natural resources available for a revitalized Ross River Dena economy, which could supply the band with needed jobs and reduce dependency on government programs. The analysis, however, indicated that problems are only partly tied to resource questions. Government dominates the cash sector of the Ross River economy, through funds to operate and staff schools, highways, the Dena Council, other services, as well as regular transfer payment programs and other, less regular programs. This is true for communities throughout the Yukon, with the exception of mining towns like Faro (which also receive significant subsidies from government).

The analysis argues that the high levels of wages and benefits received by government employees (necessary to attract skilled outsiders to the Territory) works against the development of local small business. High government wage rates raises the expectations of employees considering working for small business and of people considering starting their own businesses. Indeed, expectation of high wages was pointed out to us during interviews as one of the reasons that band members turned down training and entry-level employment.

They also argued that the combination of limited opportunities and a local non-native community in Ross River results in opportunities "often

quickly snapped up by the white community. In the past this has happened because of their greater access to capital, established banking relationships (so they can borrow money quickly) and to an extent the 'old boy network' (RRDDC 1989:8). They also raised questions about the ability of a development corporation to compete with aggressive, experienced entrepreneurs: "The speed with which well capitalized businessmen can respond to opportunities is difficult for a development corporation to match, especially one with no capital" (RRDDC 1989:13).

The response they suggested to the limited economic opportunities in the southeast Yukon and to competition was either to takeover existing businesses or enter into partnerships or joint ventures. This was seen as a method to avoid the uncertainties and high costs of start-up. The success and problems of existing businesses can be tracked and evaluated, and successful management programs can simply be absorbed.

Other than the continuing success of the Dena General Store in Ross River, the RRDDC experience has been negative. During the summer of 1993, the Corporation was in crisis. Most directors were in the process of resigning, after years of discouragement. Hired staff had been limited to 2 people, a manager and a secretary; the manager had resigned months before, leaving the former secretary as care-taker.

Considerable effort, by a broad spectrum of band leadership, had been invested in the Corporation since its re-activation in 1987. Economic planners were brought in and lawyers hired to negotiate contracts with mining developers and arrange joint-venture partnerships with regional business people. As part of the effort, in 1987-88, the RRDDC produced a bi-monthly 15-20 page newsletter for about a year. The newsletter's was intended to inform the band membership about economic directions being pursued by the corporation and political and social issues that the Dena Council were involved with.¹² The newsletter also supplied general community news and information about education and up-grading opportunities. The newsletter's tone was full of enthusiasm and excitement as the band and development corporation pursued various economic, social, and political initiatives.

To 1993, the results of the well-planned efforts were very discouraging, indeed. The Canamax mine went into production in 1988. In the end, the hopes that fuelled the Ross River Workforce Survey and other efforts

resulted in a few jobs at the minesite. The workforce required existing skills, and company policy placed a premium on efficient production. Contracts were limited to laundry supply (1 full-time and 1 part-time position), and that was cancelled by a mine manager who judged that the band's service did not meet his expectations. The development corporation was disappointed in not getting a road maintenance contract. The turn-around time between assessing the project, securing outside financing, and preparing a bid was too restrictive for the RRDDC to be competitive. They were also disappointed in the contract to transport workers to the minesite camp, originally intended as a fall-back option, which was offered to a Whitehorse firm instead (RRDDC 1989). And the joint-venture partnership with a Faro petroleum products distributor left the corporation with a significant debt.

A frontier ethic is prevalent among many non-native business people in the north. Non-native Yukon identity still echoes with the greed and the self-interest of the Klondike gold rush. The operating conditions in the north are difficult and expensive. Much of the investments are motivated by the unique resources and, what in the past was, a relatively unrestricted regulatory environment. The social environment of business dealings is a factor that aboriginal corporations need to consider; that is, how to establish conditions which lead to mutual-aid and mutual benefit linkages between themselves and the business ventures operating on their traditional lands.

a. Education

The RRDDC economic development strategy recognized that Ross River Dena had the second highest rate of unemployment in the Yukon at the time the workforce survey study was done in 1987 (RRDDC 1989). The generally low education level limited the possibility of most band members taking jobs that might come available. The strategy recognized that education of both children and younger adults must be a priority if band members are going to be employable.

The easiest focus should be children already in school. However, significant discouragements exist. The Ross River school has a large number of 'special needs' children, some the result of long-term substance abuse problems. In the recent past a teacher and teacher's aides were hired to work with these students. The jobs did two things: it gave attention to the special needs children and it allowed the regular classroom teacher to teach the other children without constant

interruption. The special needs program for Ross River was cut during the summer of 1993, as part of the Territorial Government's attempt to control education costs. The elimination of the program was disturbing. But even more, for band members it symbolized a fundamental lack of understanding by administrators of the priority needs of the Ross River Dena. The reason that Ross River Dena leaders are opportunistic about government programs is that others hold the real power. The decisions of how to invest in human resources, how much to spend, when to implement, when to cut, and what should become a priority are made in Whitehorse or Ottawa.

Adult upgrading equally needs to be encouraged. Self-confidence is required for people to make the decision to enter an educational program and to persist at it. People involved in trying to move across the cross-cultural line are essentially tentative about their decisions. Life skills training would be useful. However, building confidence requires validation and respect for aboriginal ways. A cross-cultural life skills approach which shows how both cultures accomplish the same ends and differences in how both communicate would teach that Kaska have their own skills, but need to learn about those of the majority culture to work in that environment.

4. The Economic Opportunities and Problems Resulting from the Implementation of Land Claims

Land claims settlement and implementation will result in economic benefits and in risk. New jobs will come available from implementation. The Ross River Dena have a relatively small population, with a comparably small work force. To my knowledge, there has not been any analysis of the labour force required by a Yukon band to administer the Yukon settlement model. Certainly, however, more education and training will be necessary before band members can assume the new roles.

The cash settlement should provide capital for business investment. If the capital is used strategically, it should also translate into jobs for band members. But, there are other significant benefits of large blocks of cash held by the Ross River Dena, the Kaska Nation, and Yukon Indians. Claims settlement results in more formal institutional linkages between aboriginal groups and government. The new relations can mean an increase in power for aboriginal groups. Conversely, the limited institutional relationships definitions resulting from land claim settlement

may be less powerful than the leverage that results from undefined aboriginal rights.

Power also comes from large blocks of capital. Capital is courted by investors and companies. Aboriginal groups in the United States have used the threat of removing settlement money from banks as a power lever. Washington State Indians got the help of Alaska aboriginal groups when they were trying to convince State authorities to change their long-standing resistance to implement federal court rulings on the allocation of the salmon fishery. A state policy change resulted from a threat of Alaskan groups withdrawing their capital from state banks. The Ross River people have been unsuccessful in their attempts at joint ventures and convincing mining companies to give them preference in jobs and contracts (see section I). The small successes, such as the laundry contract with Canamax's Ketzka gold mine, were short lived due to difficult relations with mine managers. The contract was cancelled because the mine managers and decisions makers felt there was little risk. The power of aboriginal capital would certainly change the perception of risk in taking unilateral actions against aboriginal interests.

Claims settlement will be particularly demanding on the band's leaders. The Ross River Dena have had a dedicated leadership over the years. Each person has worn many hats. Claims settlement will mean an increase in the time commitment of the existing leadership, unless a new generation of leaders emerge. This may be in the process of happening. The chief and council election in summer 1993 returned a nearly new slate, which, except for one re-elected woman councillor, represent younger men who have not been involved in band leadership in a major way before.

The risk, and the band's concern, is whether the settlement and its administration can be successfully applied to achieve the band's broad goals. There is considerable fear among both band members and leadership that settlement will open a Pandora's Box of land and resource alienation and development on traditional Ross River lands. There is fear that the settlement land quanta are not adequate to protect band interests, particularly the food harvesting side of the economy. The agreement is read to mean that once the band selects and agrees to its settlement lands, the rest are open for government to alienate to third party interests.

The Yukon Umbrella Final Agreement [UFA] structure is complicated. Protection of the environmental quality and productivity that Indians require to operate a subsistence economy is covered in a number of separate sections. Each has to operate successfully. And, as experience has shown in the implementation of other claims (A.Penn, Cree Regional Authority, pers.comm.) the new institutions require the good-will of all parties to work. Bands will have relatively small land areas, compared to the total of their traditional territories, on which they are the exclusive harvesters and decisions makers. The rest of the lands will be jointly managed. Resource development decisions will be based, in part, on an impact assessment process. Guidelines for wildlife and fish management will be made by local management councils and by a territorial management board, both of which will have aboriginal and non-aboriginal representatives.

The contemporary Ross River subsistence economy requires a large, undisturbed land base, productive animal populations, good access, and a relatively small number of competing harvesters. This is the basis that the Ross River people have survived as a people under what, for most people, would be considered as a very extreme environment. The risk of settlement is that these conditions will be lost. Doubts about the land claim are based on these conditions being non-negotiable and doubts about whether the structure of a negotiated band final agreement, based on the UFA model, and the ability of band members to implement it will be adequate to preserve the conditions for their subsistence economy.

There is also risk during the land selection phase. 'Settlement lands' for all Yukon First Nations other than Old Crow are limited. They are intended as land for resource and business development and to protect specific historic and cultural sites of importance to First Nations. Other than for Old Crow, settlement lands are not large enough to provide a base for subsistence. The intention of the model is for the subsistence land base to remain the traditional aboriginal territory, managed and protected through the provisions of the agreements, as discussed above.

If the intention of the model is followed, land selection should be a balancing act between resource values, real estate development potential, existing third-party land and resource alienation (which, for the most part, are excluded from choice), a variety of other restrictions required by government (such as allowing public access to waterbodies), and First Nation cultural, historic, and residential sites. Geographers

have argued that the technical task of maximizing the conflicting choices of land parcels will be very difficult (Banting and Duerden 1987; Duerden and Keller 1992; Duerden and Johnson 1993). Managing the internal social problems and conflicts which result from perceptions of loss of a specific aboriginal interest to one land area in favour of another, given traditional systems of tenure and the geographic family interests to particular regions and locations within the territory which it creates (Weinstein 1992), will be even more challenging.

H. THE MODERN HUNTING, TRAPPING, AND FISHING ECONOMY

1. How Resource Harvesting Fits into Economic and Social Goals

Subsistence is a social and cultural system, as detailed in the earlier sections. It has been going through changes during the second half of the 20th century in aboriginal communities throughout the Canadian north. As far as available research can tell us, however, it remains an important core activity, even for communities which have experienced severe problems and disabilities in other aspects of life (e.g., Brody 1982).

Prior to the 1970s, outside observers expected subsistence to be replaced by the Euro-Canadian model of social organization. The vision which northern aboriginal communities presented at public inquiries and the vehemence of the presentations came as a surprise to many southern Canadians. The communities indicated that they considered subsistence as a way-of-life tied to their identity as aboriginal peoples. The changes that were underway were efforts to adapt harvesting to modern life rather than replacement with other forms of economic and social organization. The same theme emerges in public hearings across the north, since the start of aboriginal community hearings as part of the modern impact assessment process to the present (e.g., Berger 1977; Northern Pipeline Agency 1980; Usher 1993).

The Ross River Dena's voice is part of this public record, speaking about their experience with the effects of resource and infrastructure development and their vision of the place of the 'bush' and subsistence in their future (Alaska Highway Pipeline Inquiry 1977). Essentially, harvesting operates as the connector between the social and environmental-identity threads of life. The community's overall goals are social health and satisfaction-in-life, which is really no different from the goals of non-aboriginal Canadians. However, for the Ross River Dena subsistence is a large part of the path. It amounts to the shape of activities that lead to the goals.

Subsistence is also an economic system. It differs from commodity production economic systems in that profit, although desirable, is not the dominant objective. Rather, the costs operate as a limiting factor to people's decisions to go to a hunting or trapping camp. If there is a strong likelihood of significant harvests, be they meat or well-priced furs,

people will harvests. Conversely, if evaluations conclude that there is only limited opportunities for success, people will forgo the benefits of 'clean air' and recreation. Harvest efficiency and likely returns from cash and effort expenditures are part of the contemporary land use decision equation, as they were in the past.

2. Constraints on the Harvesting Sector

A variety of constraints operate on the Ross River harvest sector. The constraints vary from the natural productivity of the land to competition with other resource users to changes in the organization of life in Ross River.

a. Productivity

The accounts of Ross River Dena indicate that the Ross River lands have historically been a place of relative wildlife and fish abundance. There is a tradition of welcoming other native people onto the land. Tales of famine and starvation are limited to one year during the late 1950s when light snow conditions did not result in the usual winter concentration of moose and caribou in the main valleys. The North Canol, in particular, has been noted throughout the Yukon in recent years for abundant moose and caribou populations. The combination of wildlife abundance and good road access has attracted hunters throughout the territory.

Questions of productivity do not appear to be limiting factors for the subsistence sector. There are, however, specific problems for some animal populations. Some of these have been dealt with through cooperative management arrangements. For example, the Finlayson Caribou Herd was in decline during the early 1980s. An intensive management effort, by the Territorial Government with the cooperation of the Ross River Dena, reduced the overall harvest rates (of both licensed and aboriginal hunters) and the local wolf population (Yukon 1988). The program resulted in significant increases in the moose and caribou population to levels which generated concerns about exceeding the areas carrying capacity for ungulates. "Ungulate populations are now being monitored to determine whether increased numbers are sustainable within their current range" (Florkiewicz and Anderson 1992:1).

Other productivity problems have not been dealt with as satisfactorily. There appears to have been a significant reduction in the runs of chinook salmon over the last few decades, and with it a change in the importance

of salmon to Ross River subsistence. Presently, salmon are harvested by the Ross River Dena as a delicacy rather than a seasonal staple, as they were in the past. Upper Pelly chinook are part of the Pacific high seas, Alaskan in-river commercial and subsistence, and Yukon commercial and aboriginal in-river fisheries. In the past, the needs of Pelly River subsistence harvesters have taken a backseat, if any seat at all, at negotiations between Canada and the United States over Yukon salmon allocation.

The UFA includes provisions for salmon subsistence harvests within international and Canadian allocation negotiations. Whether it is successful in achieving larger up-river runs through the high seas and lower river gauntlet will depend on a number of factors, including the shape of the band final agreements and a large variety of trade-offs between such interests as Canada and United States, different Yukon First Nations, and aboriginal commercial versus subsistence allocations.

b. Competition

The depreciation of salmon's role in subsistence is only one of the consequences of competition over Ross River resources. Competition for subsistence resources takes 3 shapes: conflicts over habitat, allocation, and disturbance. The basic issues were discussed in section D; the Faro Mine impacts are a microcosm of the types of competition problems occurring throughout the territory.

The Faro area has largely been abandoned as a serious subsistence harvesting area. A few elders tenaciously persist as trappers; and other people with ties to the region visit periodically to assess its recovery. The Faro development has meant a significant reduction of the Band's useful harvesting lands. As discussed above, the loss of Faro was significant due to its resource productivity and access. The combination made it an historical core harvest region for a significant portion of band families.

Ross River territory is one of the main areas of mineralization in the Yukon (Lysyk et al. 1977). Several smaller mines have opened on the territory over the last 2 decades, and still others are in various stages of pre-construction planning, assessment, and permitting. The Ross River Dena and other Kaska are looking for employment and other economic benefits from the mines. At the same time they view each new proposal with considerable nervousness. Each new development results in a

shrunk subsistence land base. Many of the mining proposals are very short-lived, eliminating the mineral deposits in several years. Some of the deposits are sulphide ores which, unless treated, result in acid mine drainage [AMD] problems.

AMD occurs when sulfur-bearing minerals ... are exposed to air and oxidized during the mining process and potentially for millennia thereafter. Cost-effective, long-term treatment techniques have not yet been developed; therefore, AMD poses a significant risk [for the aquatic environment] at most metal mines. (Soehl and Day 1993:156)

Development areas and their downstream drainages are inherently viewed with suspicion as harvest locations. There are concerns about AMD and contamination from the chemical reagents used in milling and processing. Downstream water quality, and the possibility of contamination of meat from wildlife and fish from 'that country' are major concerns (e.g., Morrell 1992). Some people persist, making use of the improved road access that mine development provides. Concerns about changes in the quality of meat and water, however, result in many people with long historical attachment to particular areas looking for other locations with the right combination of access, animal populations, and disturbance. If this is a pattern which persists, and if development review and regulation does not take aboriginal quality standards into account, what can be expected is a gradual, but cumulative loss of the land base for the domestic consumable part of subsistence.

Another concern about contaminants is emerging on the Ross River lands. Studies done by the Yukon government have indicated higher concentrations of cadmium in the livers and kidneys of Finlayson Herd caribou than in caribou from other areas of the north where comparable research has been done (Gamberg Consulting 1993). The Ross River Dena have been warned not to consume livers and kidneys from Finlayson caribou (R.Florkiewicz pers. comm.). The source of the cadmium was uncertain at the time of writing. Cadmium levels in caribou from most places in the north are similar, which likely indicates long-range atmospheric transport. The higher levels in Finlayson caribou are thought to be local in origin. Major cadmium emissions in Canada come from "the mining and refining of lead, zinc, and copper, the manufacture of cadmium pigments and alloys and the use of motor vehicles" (Gamberg Consulting 1993:11). Some shales in the area are

known to be rich in cadmium. Caribou may have ingested cadmium from plants which absorbed the metal after it was mobilized by natural weathering and erosion processes. There is, however, the possibility that "the mining of this mineral-rich rock may exacerbate the situation by liberating more of these metals in dust, emissions and effluents. Further research is required to determine what role, if any, mining plays in the contamination of the local environment" (Gamberg Consulting 1993:12).

The other aspects of competition, allocation conflicts and disturbance, are also generated by development, through the construction of new roads. Most new developments on the frontier opens the country to anyone with a suitable vehicle. If Indians are the exclusive harvesters, the roads are a benefit of the development. In most instances, however, access roads promote competition. A new set of user gains access, and begins exploring the hunting and fishing opportunities. Secondary road corridors are important harvest areas in Yukon, for subsistence and sports hunters alike. The North Canol Road is a key part of the infrastructure for Ross River subsistence. It has also been one of the most intensively used non-native hunting areas in the territory, drawing hunters from Whitehorse and other areas.¹³ To the early 1990s, wildlife populations in the area were adequate for the demand.

The land claim agreement has provisions for allocation which give precedence to aboriginal harvesters in the event of animal populations falling below demand levels. The claim agreement also has provision for an advisory aboriginal voice in management decisions at both local and territorial levels. The specifics of how these would be shaped on the Ross River territory and for the Ross River people have not yet been worked out.

c. The Organization of Modern Ross River Dena Life

The most significant event in northern aboriginal life during the 20th century has been village settlement. Settlement has had vast implications for subsistence and has exacerbated the problems resulting from development impacts. Settlement made most harvesting lands distant from the regular place of residency. Since village settlement, Ross River Dena land use has shifted from broad area patterns to patterns of use dominated by road-access corridors (Dimitrov and Weinstein 1984). Much of current use is focused on the Robert Campbell, both legs of the Canol Highway, the network of tote-roads that run up the valleys from the highways, and the adjacent lands within

a day's walking distance.

Travel costs have become a major issue in the continuance of subsistence harvesting. Employment is one of the methods used to underwrite the costs of travel between the village and harvesting lands. Employment, however, limits the time available for harvesting, so family economic organization is often structured around a complex of employed people who have limited time to harvest and unemployed people who can use the family truck or skidoo to keep wild meat on the table. Alternatively, earnings from a limited duration job are used to finance the cost of a pickup.

Various government trapping programs have been used to create a new trapping infrastructure on more distant part of the band's traplines. Skidoo trails and trapper cabins were built during the 1980s. The more recent decline in fur prices, however, has significantly reduced the incentive to spend time away from home on more isolated parts of the band's territory.

The current Ross River subsistence strategy is vulnerable to available cash. It has also concentrated the harvesting area. This leaves subsistence seriously vulnerable to development impacts and competition and disturbance from other users. In the past, if there was undue disturbance or fears of water/resource quality risks, people could retreat to other parts of the territory. The change in land use patterns combined with a legacy of mining impacts which leave the habitat and its produce suspect shrinks the available usable land base over time. This is a concern which has not yet been satisfactorily addressed.

The band's concern about the cumulative impacts of mining developments, largely fuelled by its experience with the Faro development and more recently by the Ketza Mine, is one of the reasons that the Ross River Dena have been outspoken in various environmental reviews processes, such as Yukon Water Board hearings. The band's policy has been to secure environmental protection and employment/contracting benefits, without compromising environmental concerns. Neither objective can be said to have been successful. The disappointment with jobs and contracting benefits from the mines have already been discussed somewhat, and will be discussed in more detail below.

With regard to environment protection, the band has been chronically understaffed and underfunded. The gains have been in becoming a recognized interest and a voice in the regulatory process of developments on traditional Ross River lands. A plethora of legal papers, memoranda, meeting notes and technical documents dealing with the environmental regulatory process are now regularly received by the band. The band's presence on technical committees and other meetings is solicited. The same few people who deal with land claims have the task of dealing with the environmental regulation process. Consequently, the band's response tends to be limited to a review of the papers to determine if there is a threat that needs immediate action and filing the papers if it is not urgent. This does not satisfy the officials who feel that they have made an effort to accommodate Ross River concerns. And it does not satisfy the Ross River Dena that they have a real ability to operate within the environmental regulatory process to protect their aboriginal and economic interests.

I. EVALUATION OF EXPERIENCE WITH BUSINESS DEVELOPMENT

Business is generally thought of as the vehicle for progressive economic development in aboriginal communities. What has the Ross River Dena experience with business been like, for both individual entrepreneurs and the RRDDC ?

1. Band Business Operations

The band's first attempt at a business venture was a brief, abortive attempt at running a sawmill. The sawmill, near Faro at the mouth of Blind Creek, went into operation in 1967 and closed two year later (Miller 1972). The project was initiated by Indian Affairs officials, trying to find some benefits from the development of the Faro mine. The band was initially enthusiastic about entering into a business venture. The project proceeded as a cooperative, organized on the lines of a successful venture in Old Crow. Twenty-one people bought a share at \$5 each and Indian Affairs contributed \$45,000 from a revolving loan program. A timber cutting permit was obtained from the Yukon government. A training program was initiated in which one-half of trainee's wages came from Indian Affairs funds and one-half from the cooperative. The operation hired 14 band members during its second winter, but reduced to 5 full-time and 1 part-time employee during the summer.

The project was considered a financial failure by the funding agency, since only a few thousand dollars were left after operating expenses in 1969 -- not enough to make any payments on the revolving loan. The mine's demand for timber had been over-estimated; most of the installations used metal. The enterprise was structured as a cooperative to create a business incentive. However, many band members felt that they were working for a non-native business, since the manager was white.

A variety of work problems also created difficulties. Miller (1972) listed alcoholism and the temptation of a nearby alcohol outlet in Faro; resentment over individual promotions; sexual forays of Faro workers to the family camps of sawmill workers; discomfort with a synchronized work schedule; irregular payments; and inadequate accounting of wages. The manager behaved autocratically and tended to hold back pay arbitrarily, according to Miller, as a measure for controlling access to alcohol. The combination of working conditions and paternalism, poor assessment of timber markets and the cost of operation,

mismanagement, and the confusion over the ownership of the mill and timber tenure resulted in the demise of the band's first attempt at business.

Records of attempts at business development during the intervening years are sketchy. Plans for a handicraft production center were prepared in 1981 (Indian Consulting Group Ltd. 1981). The proposal took a production-line approach to handicraft with the objective of providing employment for women heads of Ross River households.

The Band Council had been operating a small craft outlet from the Band Office, selling raw materials at cost and purchasing finished crafts. This arrangement worked for many years, giving household craft producers an immediate return. They stopped purchasing crafts sometime during the late 1980s due to problems with resale and a lack of money to continue the program.

The band's most successful venture has been the Dena General Store, which is one of two retail outlets in Ross River. The store has been considered by some economic experts to be the most successful business enterprise run by a first nation in the Territory (B.Ward, pers. comm.). It started as a cooperative in the late 1970s, using volunteer labour. It was structured as a cooperative to take advantage of Indian Affairs funding programs; financing for business venture was not available at the time. It began as a poorly capitalized shoe-string operation. The first store, constructed at the entrance to the Indian village, burnt down in the early 1980s and was relocated in the band hall for a year. A new, modern building was constructed with money from the insurance claim, Indian Affairs, and a Special ARDA grant. There was some doubt about obtaining funding from Special ARDA due to their policy of not aiding businesses where competing business existed. The grant was made for a cafe within the store complex, after an ARDA official toured Ross River without seeing an Indian in the hotel restaurant, the only one in town.¹⁴

The store was restructured under the Ross River Dena Development Corporation in 1987-88, following advice from an economic advisor. The store building was owned by the Band Council and leased to RRDDC. Rent was a sliding-scale formula based on the net income, not to exceed \$28,850. The cafe no longer exists, but the town post office is located in the building as is the office of a band member's business. Both pay

a fixed rent to RRDDC. In 1992, the store paid \$20,000 in rent to RRDDC. In 1993 the store was making a significant profit.

The store ordered their supplies from Whitehorse for many years, but they switched to an Edmonton supplier who was considerably cheaper and had a greater variety of goods. After the change, gross sales increased significantly. This gave the operation a competitive edge on the sale of groceries in the village.

In some years the store was in debt, but even then they were paying significant wages and benefits to band member employees. The main problem has been accounts receivable. Goods are purchased on credit. Many Ross River Dena do not have a regular cash flow, other than monthly welfare cheques. Earnings from bush activities -- trapping, guiding, handicraft -- tend to be pulsed. Seasonal employment earnings are also irregular, whereas the need for groceries is constant. Ideally people would clear their accounts every 30 days. That does not always happen and it produces cash flow problems for the store. Debt back-logs are dealt with through letters, talking to people, requiring a penalty charge, and threatening to cut people off account credit. Most local residents pay their accounts in time; real losses come from people who have left town. People with long-term or large outstanding accounts were sent threatening letters, and management was considering using small claims court. This has been a problem for other bands in Yukon, who have tried to operate stores and have since given up. The Ross River Dena Store has an advantage of serving a larger community due to the village's ethnic mix. But carrying unpaid accounts acts as a drain on resources and is a threat to the sustainability of the business.

Over the years, the store has had difficulty in finding reliable employees. They have been through a lot of workers. The major problems have been people not showing up when scheduled and not working efficiently. The store manager felt that employees have to enjoy the job, otherwise it is easy to find excuses for not showing up or for focusing more on personal problems than the tasks required for the job. The store had 1 full time employee, 2 part-time and 2 summer students in summer 1993.

Summer months are busiest due to tourist trade and people having more income from seasonal employment. People spend less on food in early winter due to bush food from the fall hunt. Sales pick up in early spring

due to the drop in bush food activity. The store acts as a seasonal supplement to the harvest cycle.

A considerable amount of accounting work is required for the store operation. Staff keeps paper and computer inventories and are responsible for the record keeping for the year-end audit. The work load increased due to greater earnings and re-investing in an larger inventory of groceries. As they became larger, the number of suppliers increased, and that too has increased the administrative load.

Another bright light has been housing contracts. Funding came from the Band Council to RRDDC as a sub-contractor. RRDDC contracted with band members' construction companies to do the actual work. There has been general satisfaction with the results. The funding provided housing, job benefits, an incentive for band business people, and job experience.

To 1993, the story of the other business efforts of RRDDC were less auspicious. A considered effort at business creation took place during the middle 1980s with the re-activation of the corporation as the band's economic development arm.

RRDDC strategically attempted to use the Ketzia Mine development to create business opportunities and jobs for band members. The corporation bid on a number of contracts tied to the Ketzia Mine operation. They attempted to form a joint venture with a Watson Lake construction company. The partnership was attractive for the combination of training and employment opportunities which were potentially available. According to band members, the construction company made an independent bid, using information made available by RRDDC to underbid.

RRDDC also went after a laundry contract for the mine. The funding came from Special ARDA. An analysis by the band's consultants indicated the laundry would be a profitable venture. The costs, however, were higher than predicted and the corporation had to secure extra funding from Manpower Canada to cover unanticipated extra costs and training so they would not go under. This required hiring a commercial laundry facility trainer from Vancouver. The high electricity costs were also not part of the estimates. The consultants had predicted large revenues, but in the end the corporation only got a contract for bedding.

The uniform laundering contract went to a Whitehorse firm. They lost the bedding contract before the mine closed down. Band members involved in the project feel that one of the supervisors had a personal vendetta. He complained that a set of sheets had been burnt and that workers were drunk. The Ross River workers feel that sheets used by the company were of poor quality and were worn out. They also feel that the supervisor arrived at the laundry when one of the more consistent workers had arrived drunk and assumed that that was the norm. The workers feel that loss of the contract was due to a grudge about the band complaining to the supervisor's superior about his general attitude.

The loss of the contract, however, was not significant, since RRDDC would have had a considerable deficit if they continued after the training money ran out. They got washers and dryers and several jobs out of the program, but no long-term solution to employment needs or useful training.

The Ketzia mine was run with a crew schedule of 2 weeks in and 2 weeks off. The development corporation tried to get the contract for transportation of employees from the Ross River airport to the mine, but were edged out by a non-native Ross River businessman.

The corporation had serious financial and management problems during 1993. Part of the financial difficulties resulted from the purchase of a 50% share in a bulk oil business based in Faro. Funding for the purchase came from YTG as grant and a loan. A considerable amount of money on the loan was still owed. RRDDC signed a share-holder's agreement, leaving the original owner in charge of company operation for 3 years. He was also the owner of other regional distributors. Band members who have been involved with this business feel that their partner set up the deal in his own interest and behaved unprincipled. The RRDDC lost more money in this venture between 1992 and 1993 than the business was worth. One-half of the estimated value came from "good-will". Debts in 1993 were greater than the company assets. The RRDDC sent their partner a registered letter asking that the company be dissolved or that he buy out the band's interest.

There has been no benefits except at the start. The venture was a continuous drain. Under the share holders agreement, the business was to hire 2 band members. This did happen, but the employees soon quit. They had to move to Faro and after learning that they had to pay rent, and found that the job had high costs. They also did not like living

in Faro. The band tried to find replacements, but no one wanted the job because it required living in Faro.

The agreement also created difficulties for the Dena Store's plan to install gas pumps. RRDDC signed a 3-year non-competition clause, and their partner had an interest in existing Ross River gas stations.

The recent experience left corporation and community leaders feeling defeated. Well-considered business development plans were drawn up during the late 1980s, relying on the counsel of professional advisors and lawyers who had considerable experience with aboriginal economic development. Perhaps what was not considered in the planning was the ultra-competitiveness and short time commitments of the Yukon mining industry's version of frontier economics. The last generation of RRDDC management were not aggressive business people who went after new contracts. Rather, they saw their role as simply managing the existing contracts.

2. Band Entrepreneurs

Band members have had limited experience with their own businesses. Several people have operated businesses. One person began in the late 1970s and the others are more recent. The experience has been mixed. People obtain contracts, but getting a flow of work to make the business the primary means of livelihood over a significant period of time has been a struggle. Most people who have attempted business earn their living from a mix of contracts and service, wage work, income from other family members, and subsistence.

The person with the longest experience had been in business for more than 15 years. He got started in heavy equipment by purchasing his own 18-wheel truck through a Special ARDA program, in which he put up a share of the cost with his own money and the program provided a grant and loan combination for the rest.

Obtaining contracts has not been the problem. Rather, the problem has been divided time between business and participation in band leadership. The other problem is hiring reliable employees. Unreliable employees place the efforts of band business people at risk. The pool of experienced and consistent employees is limited; and most already have steady jobs.

Contracts with mining companies have been unsatisfactory. On the one hand, in the past there was no preferential treatment for First Nations people on whose land the development is taking place. Indians feel that their local experience was not valued and not considered within contract bids. They feel that they were being discriminated against for being Indian.

On the other hand, the attempts at preferential contracting relations with Curragh Resources hit a wall due to labour unions. After some encouraging promises, band entrepreneurs were told that the company's relationship with unions prevented jobs from being given preferentially to non-union First Nations. Band members felt that the company had found a convenient excuse to deny band members economic opportunities.

Ironically, the apparent conflict between union labour and band workers is between 2 collectivities which have been engaged in somewhat similar struggles. The aboriginal struggle for recognition, however, is current. The unions obtained their power through historical struggle and numbers. First Nations are in a similar struggle, but of another shape. And now the unions are part of the powers in place that First Nations have to contend with. The mines' position is that their existing agreements with the unions takes priority

Another of the band's entrepreneurs opened an office and accounting service business in 1991. The owner added to her existing experience by working as the RRDDC manager during the period of intensive planning and early implementation. She started on her own, doing irregular contract work, after Council ran out of money for the manager position. Her experience gave her knowledge about which computerized services the band and RRDDC required to increase efficiency. She also had skills to train the new corporation manager and to train staff in computer accounting. The business started with personal savings, combined with a grant from the Aboriginal Business Development Program, a federal program under Industry, Science and Technology, an interest-free loan from YTG, and training money from Manpower Canada. Her business depended on the band's general economy and how well the store was doing. When business was weak so was demand for services, placing the business at risk.

Marketing was all important. Employees were hired for the routine work so she can focus on contracts. Work from the Kaska Nation at Watson

Lake was a primary focus, but she felt at a considerable disadvantage because of the distance. Plans included branching out in the future. Her long-term contracts were with the RRDDC and the Store; and, less regularly, work from the band.

She felt that band staff needed more extensive computer training, and that she was in a position to supply the required training. However, expanding her business or even keeping it running depended on the band's willingness to support local aboriginal business. She felt that her business was putting money back into the store by paying rent, but that some band members were wary of the success of individuals, and that there is a tendency to undermine successful business people rather than providing support.

She also felt that her business was at risk due to the poor Yukon economic climate and the then current RRDDC crisis. Her long-range strategy was to obtain a greater degree of security by focusing on computer training. Since there is a limited need for computerized office services in Ross River; it may not be sufficient by itself to provide a reasonable business income.

Other band members have operated construction businesses, as mentioned above. And still others have been floating funding proposals to RRDDC for tourist outfitting businesses.

3. Opportunities and Problems

The band's business efforts to 1993 certainly did not amount to a success story, with the exception of the Dena General Store. There have been successes, but the summer of 1993 will likely be considered a time of transition when viewed from a distance. There are many lessons that can be learnt from failures. The analysis effort in aboriginal business development, however, tends to be concentrated on the promotional/proposal side, very often ignoring what happened after the proposal was funded. Dependency on government for funding results in opportunistic strategies; obtaining a grant or loan is often treated as an end in itself. Learning from the experience requires monitoring. Judging from the band and development corporation files, monitoring success or failure and trying to understand the conditions that lead to success or failure was not part of the agenda of the funding agencies either.

The so-called human resource is a problem. Business requires dedication

from leadership who act as corporation directors, from hired managers, and from employees. The pool of leadership talent, in particular, is limited. Staying with the effort year-in year-out is a requirement. The band's leadership has done this for decades, but motivation to keep going requires a perception of success. Otherwise, people simply view their positions as thankless, exposed to criticism, requiring constant work, and obtaining no benefits. This is the reason that the discouragements were so serious.

Continuous development of new, younger leadership and management talent should be a priority. Crises often results from managers or leaders quitting or taking a new job. The next person to take the position is often left without an understanding of what went before. Each position has a history that is part of the band's policy development. Passing on that history needs to be part of the training for the position.

Management of RRDDC was structured as a one person show, with little support from other employees. There was a serious problem of continuity, probably due to the irregularities of success and effort with the corporation. Council decided not to continue funding of the first manager's position in 1990 after the grant they were using to fund the position ran out. The corporation was maintained for some time via contract. The next manager came from outside, was not aggressive, and had limited briefing for continuity about what had gone before.

The RRDDC was set up as a post-claims institution. It was to manage the assets from settlement, to create jobs and businesses. The premise was that the corporation would have a large block of capital available for its efforts. That did not happened and the corporation was dependent on government program funding. Successes, for the most part, came from internal dealings, such as band house construction. Failures came from trying to enter the non-native business sphere. The extreme competition which operates in the Yukon mining sector requires something more than good will and dependence on slow, inflexible government programs for financing if aboriginal business are going to benefit. Southern companies invest in the Yukon due to unique conditions, such as mining deposits. This is a useful perspective for considering how to structure relations so that aboriginal groups can obtain benefits within a very competitive business environment. If similar opportunities were available in the south, the mining companies would not be interested in Yukon investments. The conclusion that

comes from this model is that the permitting conditions for development need to be directly tied to benefits to First Nations on whose lands they occur. Then the competitive balance shifts because Indian success becomes a problem for all of the parties.

Without this type of incentive the problems of employee social problems, low education standards, cultural differences, communication difficulties, and so on are easy excuses to replace Dena workers with southern fly-in staff whose on-the-job problems are of a different scale.

J. EXPERIENCE WITH PARTNERSHIPS AND ECONOMIC LINKAGES

The early model for linkage of northern aboriginal people to the modern Canadian economy was as labour for frontier resource development. This obviously did not work for the Ross River people. They experienced the social and environmental impacts of mining development and little, if any, of the benefits. A later model for linkage has been business development and contracting for services required by the developments. Again, this has not been entirely successful. However, the band has learned a variety of important lessons from their experience. The sections below discuss some of the approaches that emerged from this experience.

1. Curragh Resource Inc.

The Faro mine complex was purchased by Curragh Resources Inc. in November 1985, after having been closed for several years. Curragh re-opened the mine in June 1986. During the late 1980s, the last of the Anvil deposit, the major mineral deposit which had been the impetus for the development of Faro, was being mined. The company entered into discussions with government about developing the lesser Grum and Vangorda lead-zinc deposits on the Vangorda Plateau (about 10 kilometres northeast of the Faro townsite).

Plans called for significant re-sculpturing of the central plateau. The old mill and tailings pond, both adjacent to the Anvil pit, were to be used for processing and for disposing of the ground-up waste rock. The use of the Anvil infrastructure required construction of a heavy-duty haul road, capable of handling the large tonnage ore trucks, across the face of the plateau from the new mine pits to the mill. Re-development also required removal of over-burden from the new pits and construction of infrastructure on the plateau (including: a water treatment plant designed to control the acid rock drainage problems; a power line, shop and office facilities; and a fuel and lubrication depot).

Recognition of the aboriginal interests of the Ross River Dena had changed over the 20 years since the Faro complex was first constructed, as did environmental regulation. The mine re-development required new water licenses, which called the current environmental assessment structures, under the Environmental Assessment Review Process [EARP] Guidelines Order, into play. The Ross River Dena and the Selkirk First

Nation (whose village, Pelly Crossing, is located downstream of the mine, at the junction of the Pelly and the Dawson Highway) sent representatives and a lawyer to the 1990 Yukon Territorial Water Board Hearings into Curragh's new applications.

The concerns of the various parties -- the company, the 2 bands, and government regulators -- circulated in discussions. All parties were aware that Curragh was the largest private sector employer in the Yukon. There was concern that if a full EARP (Level III Screening and FEARO Panel) was initiated the re-development of the mine would likely be delayed for years. Since the Anvil deposit was nearly depleted, proceeding with a full EARP prior to development would mean shutting down the mine. The bands were willing to proceed with mechanisms for environmental protection that were available under the Fisheries Act and the Northern Inland Waters Act, if they felt confident that these mechanisms would adequately deal with their environmental concerns.

The Ross River Dena Council was also interested in establishing a working relationship with Curragh, as was the Kaska Nation. (Curragh owned a number of other lead-zinc deposits on the territories of southern Yukon and northern B.C. Kaska.) Environmental protection was a priority, but if the basic protection needs were assured, the Ross River Dena were interested in finally capturing some economic benefits from the Faro development. They took a two-fold approach: band business development and employment needed a spur, which could be gained through preferential contracts; and people who had been pushed off the land by the development, particularly the elders from that country, should receive some type of compensation and recognition of their hardship. The impacts of the mine's operation on Ross River land use was acknowledged by Curragh in 1990, in an offer to begin discussions about the land use concerns and steps that could be taken to rectify them. A land use impact study of the re-development was funded by Northern Affairs, which the band used for a retrospective assessment of the Faro mine development on the land use of Ross River Dena (Weinstein 1992).

Two environmental issues emerged with regard to the Faro mine. The first was the effects of mining the smaller Vangorda Plateau (Grum and Vangorda) and Blind Creek (Dy) deposits. The second, was the question of over-all abandonment of the Faro development after the local lead-zinc

deposits have been depleted. Both have proved tenacious. The problems result from there being no cost-effective solution to the acid mine drainage predicament (Soehl and Day 1993). Current technology requires the acid abatement processes to operate and be monitored for centuries (and perhaps for millennia). Obviously, the costs are enormous and the probability of success is unpredictable. The water licences issued by the YTWB to both Cyprus Anvil and Curragh had multi-million dollar security deposits attached to abandonment.

Curragh argued from the start of their tenure that the operation would not be economically viable with large deposits required for abandonment. At the time that Curragh was negotiating the purchase of the mine with Cyprus Anvil, the mine's water license had a \$51 million figure attached to abandonment. Curragh indicated that if they were held to this condition they could not afford to purchase the mine.

The existing water licence issued by the Board has attached to it a liability for the mine operator to incur 'mine abandonment' costs of \$51 million (1981 \$) at some future date under a plan proposed in 1981. Our equity investors and bankers have informed us that the financing cannot proceed with this liability in place.

Put plainly, if these licensing conditions are not amended now, the \$50 million of new money raised by Curragh for the mine will disappear, the transaction will not be completed, and the mine will not re-open.

Since it has been estimated that Cyprus Anvil has accounted for as much as 40 percent of the Yukon economy, and since about 500 direct jobs are now at stake, failure to proceed at this time would be unfortunate indeed.

(Letter of 5 September 1985 from Ralph Sultan, Curragh Resources, to Earle Forgues, President Cyprus Anvil).

Curragh proposed changes to the existing water licence including a 2 year study period to develop a new mine closure plan and a "levy" system on future mine production to build a "Trusteed Environmental Fund" to cover the environmental costs of mine closure. Their estimate was that about \$7.5 million would be necessary for the closure of the tailing pond. They suggested that the fund be built, over the estimated 25 years remaining in the mineable deposits, by a levy of 25 cents per ton of shipped concentrates and the accrued interest. Environment

Canada found the idea of a levy interesting, but that a 25-year period would leave the public interest at risk if the mine closed in 5 to 7 years.¹⁵

Curragh requested that the change to the water licence be treated as an emergency matter under section 15(2) of the Northern Inland Waters Act, which allows the changes to proceed without public hearings, due to the importance of opening the mine to the Yukon economy and the fragility of the financing arrangements that Curragh had put together for purchasing the mine. (A copy of the letter was sent to the Minister of Indian Affairs and Northern Development.)¹⁶ Environment Canada did not consider that the issue was an emergency under the intention of the Act and that the usual review process should be followed.¹⁷

Subsequently, Curragh argued in court that the Minister of DIAND did not have the legal authority to require the company to provide a \$4.4 million security deposit for future water treatment and reclamation when the Vangorda deposits would be depleted. The YTWB had issued a licence requiring a much smaller deposit.¹⁸ The recommendation for the larger deposit as a condition of the licence came from government scientists. The Minister refused to approve the licence unless Curragh first posted the security deposit. The lower federal court ruled against Curragh in 1992, as did the Federal Court of Appeal in June 1993.

With regard to the issues being addressed in this report, the Ross River Dena Council carries two economic concerns: jobs/ business opportunities and environmental quality/productivity. Potential business partners like Curragh do not bear the same constraints. They have to comply with legal restrictions on their environmental activities, but their objective is to provide benefits to their owners and investors. And they use all of the legal and lobbying means available to them for those goals, as indicated above. The mining companies do not have the direct connection between environmental change and assessments of their success which aboriginal governments carry.

As discussed above, the Ross River business experience with Curragh's Faro development was unsatisfactory. Discussions about compensation for land use impacts never began due to an economic recession and the mine closure. Other relations with Curragh, however, appear to have been more satisfactory. Before the closure of regional lead-zinc mines, Kaska Inc. -- the economic arm of the Kaska Nation -- had entered into a relationship with Curragh to develop the Sa Dena Hes Mine on the

territory of the Liard First Nation, near Watson Lake.

2. Kaska Nation

The Kaska as a people have a national vision. The vision was shaped when the Kaska Tribal Council [KTC] was given the mandate to represent the interests of the Yukon Kaska and the B.C. Kaska. The KTC consists of Ross River Dena Council, the Liard First Nation, and the Kaska Dena Council [KDC], which represents the B.C. Kaska, including Good Hope Lake, Lower Post, Fort Ware, Dease Lake, and the smaller communities of Fireside and Muncho Lake. The vision is actually a geographic approach to governance. Enacting the vision is complicated by the provincial/territorial boundary at 60°s N; the boundary was created at a distance and is not based on landscape features or aboriginal geography.

Concern about the possible divisive consequences of the settlement of the Yukon land claim on the Kaska as a people acted as the incentive for the formation of the KTC. At a Kaska National Assembly, at Campbell River on Ross River Dena territory, in 1987 the Kaska agreed to proceed toward land claims as a nation, ignoring the territorial/provincial boundary line. The Kaska have been deliberate in this approach and have, whenever possible, gone to the negotiation table as a nation. The instructions for this approach toward land claims, self-government, policy making and economic development came from the Kaska elders.

A separate agreement between government, CYI, and the various Kaska parties about the process for negotiating both Yukon and B.C. Kaska claims within the Yukon was signed in 1989. The CYI negotiating strategies did not satisfy the Kaska interest, and a national organization was established in 1991 to represent the interests of the Kaska as a group. The intention was to serve the entire nation regardless of the lines of Canadian political jurisdiction.

KTC saw part of its mandate as facilitating the development of self-government at the Kaska community level and acting as a unified national voice for the Kaska in political (e.g., land claims) and economic matters. A board of directors appointed the first tribal chief, although the expectation is that elections were to be held in the future. Staff consisted of a general manager and 4 advisors with different portfolios. The Board dealt with Kaska national issues and provided advice to Tribal staff.

At the time of writing, the KTC was a young organization, feeling its way toward the creation of a national political/managerial institution. Tribal leaders recognized that the creation of a viable organization required avoiding conflict with band councils and community prerogatives, rights and responsibilities while exploring the details of an appropriate service mandate for a national organization.

Under the watchful eye of the Board of Directors, the Tribal Council has been negotiating with the governments to devolve some of the more universal programs to the Tribal Council. KTC has also been negotiating along side the member first nations with governments to devolve programs to the community level. (KTC n.d.:9)

Kaska First Nations were expected to develop self-government programs at their own rate and the plan called for continuously devolving programs to the communities as they want them. KTC negotiated with the federal government on tribal policy, health programs, drug and alcohol prevention programs, and post-secondary education, among others. Negotiations with YTG included probation service, drug and alcohol programs, tribal policing and justice issues among others. The services also included economic development. In particular, KTC's intention was to provide member bands with technical support for the economic development planning, project proposals, and business plans.

The service and advisory aspects of the tribal agenda all fit under Yukon Region Indian and Inuit Affairs Tribal Council Policy as part of devolution. Following the agenda allowed the tribal organization to be eligible for start-up and operational funding under the policy.

The other roles of the KTC were political and economic. The Kaska stand apart from other Yukon First Nations. They have significant transboundary interests and, as a group, signed an agreement with the governments to deal collectively with those interests. The KTC position in summer 1993 was that the Kaska Agreement was the only basis for claims negotiations, unless they agree otherwise.

During summer 1993 the Kaska were concerned that changes in the Yukon Umbrella Final Agreement [UFA], to which they were not party, and bi-lateral agreements between the Yukon and Canadian governments placed their interests in jeopardy.

a. The Kaska and the UFA

According to KTC spokespeople, the wording of the 1993 version of the Yukon UFA indicated that the UFA is to be taken as the primary land claims document, taking precedence over all others. The Kaska felt in conflict because they interpreted the wording as reducing the Kaska Agreement, the document they signed as a nation, to a subordinate role, and because the action was taken without consultation. Delegation of responsibility is not taken lightly in the Kaska world. The Kaska position during the summer of 1993 was a rejection of the application of the current version of the UFA to the Kaska nation. They also rejected the proto-type for a self-government agreement. These positions were not intended as a rejection of self-government or land claims, but as an implementation of their policy of rejecting any agreement to which they were not a direct party in negotiation.

The important issue was the emergence of the nation and the need to stand aside from elements of the process which worked against the assertion of national identity. There was a willingness to take advantage of some of gains made by the Yukon/CYI claims deliberations, but only after it had been altered to suit the needs of the Kaska as a national/transboundary aboriginal group. The core of the conflict for the Kaska focuses on the question of which agreement has primacy with government, the UFA or the 1989 Kaska Accord.¹⁹ In the Kaska's interpretation, the UFA indicates that it is the paramount document.

b. The Kaska vision and resource jurisdiction

During the summer of 1993 the Kaska were also seriously concerned about economic conflicts from the proposed transfer of oil and gas and forest responsibility from Canada to the Yukon. The CYI was also concerned; CYI had obtained legal advice that the transfer of resource jurisdictions required the consent of Indians.

Information circulating indicated that an agreement-in-principle for transfer of responsibility over forests to Yukon had already been signed. Among Yukon aboriginal groups, this change would affect the Kaska most, since their territory contains the largest share of the territory's economic forest and they have their own forest management/development plans and operations.²⁰

The Kaska already had a timber harvesting agreement with government. To the Kaska the change felt like the governments unilaterally changed

the relationship. It is likely that governments simply saw the Kaska timber harvesting agreement as a 3rd party licence, rather than a nation to nation or government to government relationship which restricts unilateral moves by senior governments. The Kaska believe that their aboriginal rights should offer protection to the agreement.

Information also indicated that the transfer of responsibility over oil and gas had already been signed by the two governments, again without consultation. The KDC had agreements with oil and gas companies, which potentially affect Yukon Kaska through the 'Sharing Accord' (see below). The Kaska felt that oil and gas rights should have been negotiated before a bi-lateral transfer was considered. They felt that their only recourse might be the courts, unless there was an agreement to negotiate before the oil and gas transfer was legislated.

Overall, these changes, done without consultation, made the Kaska very suspect of their future relations with government. They interpreted these moves as indicators that in the future, after claims have been settled, their economic interests will be treated like those of third-parties. Without a signed claims agreement, aboriginal rights to resources are undefined (although some definition is evolving from court decisions). The First Nations interpret this as having un-restricted rights. Government, obviously, feels otherwise.

There may be a fundamental disagreement between government and the Kaska, and perhaps other First Nations, over resource development within land claims. The Kaska do not see their economic vehicles as fundamentally separate from aboriginal government. There is a concern shared by the Ross River and other Kaskas that the senior governments' model for aboriginal economic development is based on Canadian free-enterprise capitalism, where government and business are separate institutions. Although not formally articulated, the Kaska model has greater similarity to self-governing community/cooperative enterprises operated under common-pool or common property resource arrangements.²¹ Within such a model, the basic questions of distribution of wealth, basic equity of wealth, and the conservation and sustainable use of resources are resolved by the collectivity through consensus or some other mechanism, rather than by the creation of dialectic institutions.

The rules which will govern Kaska and government relation to resources

have yet to be shaped. However, the Kaska First Nations feel that governments' unilateral agreements place restrictions on negotiations. Most threatened is the trust and good-will required to make the agreements work during implementation. The Kaska feel that their national approach is not well known outside of Kaska circles. Kaska initiatives are unknown and governments are proceeding as though they either do not exist, are insignificant, or that they are simply business relations rather than elements of self-government tied to aboriginal rights.

3. Kaska Inc.

Kaska Inc. was established as the economic development arm of the Kaska Nation in January 1990. The chiefs of 5 bands (Liard First Nation, Ross River, Lower Post/Liard IR#3, Good Hope Lake, and Fort Ware) are the share holders, on behalf of the bands. There is a board of directors, with directors appointed by the communities.

In 1993, Kaska Inc. was a shoe-string operation, with no core funding of its own. It relied on programs to pay the manager, employees and advisors. Thus it had no permanent staff. This arrangement is a formula for business motivation in a society which has problems with linear goals. People get paid if they generate business.

The organization held intensive planning meetings in early 1991 to decide on its mission and operation. The object was to change:

the Kaska ... policy on resource development from resistance and opposition until there is a just settlement of their land claim to becoming partners in development provided the developer is prepared to recognize and acknowledge Kaska rights, title and interest in and to the resources of the Kaska homeland in the business deal. (The Kaska Nation Economic Accord, April 1991)

The organization's mission was to develop "profitable business opportunities as a means of building Kaska ownership and significant Kaska control and management of the economy in the Kaska homeland".²² The object was to promote 4 main types of benefits: profit, management development opportunities, "contracting opportunities for Kaska members and community corporations and jobs for Kaska members"²³, while protecting Kaska interests in the environment and wildlife.

The meetings examined questions of sharing and independence for the Kaska First Nations. The resulting agreement, the Kaska National Economic Accord or 'Sharing Accord', recognized 5 geographic regions within the Kaska Nation (with some degree of overlap). The Accord established principles for benefits and sharing for the First Nation on whose territory a development takes place and for the other Kaska First Nations. For example, the First Nation on whose territory a development took place would have right of first-hire. If adequate skilled or trained people were not available, Kaska from other bands would be hired. If an adequate labour force was still lacking, then other locally residing Indians would be hired. Finally, if personnel were still lacking, jobs would be made available to others.

The First Nation on whose territory a project is proposed has an effective veto over Kaska Inc. involvement on environmental, social or cultural grounds. However, rejection of a proposal requires "bonafide reasons"²⁴ to ensure that consent is not being "unreasonably withheld".

Within the sharing accord profits are to be shared 5 ways through the entire territory. There is a 'switch' between band economic corporations and the Kaska corporation at the \$.5 million/year level. When projects are less than \$.5 million/year band development corporations have rights of first refusal. The formula was focused on the notion of fairness between bands. The fairness objective was intended to prevent financial disparities from creating large social tensions between the Kaska communities. It was also structured to avoid having Kaska Inc. becoming the sole economic driving force for the Kaska Nation. There was a recognition of the importance of diversity, both in resources and in business management.

a. Relations between Kaska Inc. and resource companies

Kaska Inc. entered into agreements in the oil and gas, mining and timber sectors. They established a partnership with the forestry company ITT-Rayonier, intended to market sawn timber and whole log sales to Asian buyers. Kaska Inc. representatives explored the purchase of small-scale high-tech integrated saw mills for their forestry operation. They owned a majority share in Northland Kaska, a major contractor which was involved in the construction and operation of Curragh's Sa Dena Hes mine, until it closed in December 1992. Northland Kaska provided over \$2 million in wages to aboriginal employees between January 1991 and February 1993.

They also signed a number of agreements with Curragh Resources. Besides the Faro mine, Curragh owned economic lead-zinc deposits on Liard (Sa Dena Hes) and Fort Ware (Stronsay) lands. A basic agreement of cooperation was signed as a statement of understanding in 1991 (Kaska/Curragh Framework Agreement). Subsequently, agreements for the Sa Dena Hes and Stronsay mines were negotiated; and an agreement over contracting for Faro was in negotiation when the mine closed. All of the regional mine agreements were nested in a master agreement with Curragh. The Sa Dena Hes and Stronsay agreements were signed accords, considered binding on new partners in case of a sale of the properties.

The Faro Agreement was a preliminary document, limited to jobs and contracts. The approach taken to deal with the problems of union resistance to Ross River taking over the road contracts was to build this into the relationship with Curragh Resources and YTG. This element of the agreement, however, still needed final negotiation in 1993. At the time the likelihood of success was uncertain. The union position was that they had their own agreement with the company and benefits to the Kaska should not jeopardize the jobs of their members. There were certainly possibilities of coming up with a solution before the discussions stopped. The problem, however, is one aspect of the broad difficulties that aboriginal peoples have with obtaining economic satisfaction because of vested interests.

The Kaska do not simply want to be employees of resource companies or union members. The model from which they were operating is to be their own people -- contractors, businessmen, or owners of equipment -- on their own land as individuals and partners in development as a nation. Kaska Inc. has looked into the question of taking an equity position in the various mines. They were partners in Sa Dena Hes; were advised that Stronsay's economics did not look promising; and decided that since Faro is essentially a sunset mine with considerable problems in abandonment, they were not interested in an equity relationship.

When Kaska Inc. and Curragh operated together, they did so through a joint mine management committee. The management committee provided a forum for discussing problems. It functioned on a consensus basis.

Rather than a blanket opposition to development on the homeland, the corporation's policy was to negotiate with developers if a 'due diligence

assessment' indicated that design and plans were adequate for keeping impacts within acceptable standards²⁵, unless the community on whose traditional lands the development is located firmly opposes the project. The Faro re-development plan, however, was not subjected to the 'due diligence' approach. This procedure only applies to new projects.

b. Conflicts between Kaska Inc and Ross River institutions

Both the Kaska Nation and the Ross River Dena Council have development corporations. The 'Sharing Accord' was created to avoid conflicts between band and tribal interests. All of these economic institutions, however, were in their infancy; and all had significant ambitions. Conflicts abounded over questions of who benefits.

Kaska Inc. and Kaska Nation activities are centred on Watson Lake. The major economic ventures, Sa Dena Hes and Kaska Forest Resources, were also centred around Watson Lake. Ross River sits on the northern edge of Kaska Tribal territory. Many Ross River band members felt that economic benefits were going to other, more centrally located Kaska communities. Some Ross River contractors felt excluded because they are at the periphery. They also felt that not enough was being done by the national bodies to promote Indian businesses. Contractors felt capable of doing smaller Kaska Nation contracts, but saw them going to non-natives in the larger centres.

The exchange of information was one concern. Contracts come up periodically and need to be responded to in a timely fashion. Whatever the reason, there were serious communication problems between Kaska Inc. and Ross River Dena Development Corporation. There was no direct line of communication between the 2 organizations.

There was resentment in Ross River over the linkage operated during the hiring for the Sa Dena Hes mine and for road construction for the development. Ross River feels that it was left out of the jobs and contracts. In the end only a few people from Ross River were hired. Ross River feels that no one was looking out for their interests. There are large resentments here.

On the other hand, the management of Kaska Inc. felt that Ross River's negative stands on environmental issues at Faro made the working relationship between Curragh Resources and Kaska Inc. very difficult and worked against the development of business programs with Curragh.

The other side of this is a view that the tough political position of Ross River Dena Council is what made Curragh anxious to formulate a relationship with the Kaska. Kaska Inc., in trying to build a relationship between Curragh and Ross River, blame the difficulties, in part, on Ross River's experience with the Faro mine and the level of historical anger in the community toward the development and town. Kaska Inc. was trying to negotiate a road contract which would allow Ross River people to reside in Ross River and commute to work at Faro, to avoid the reluctance of Ross River people to live in Faro. Their approach was to place a priority on employment opportunities and training. Kaska Inc. felt that this strategically required developing a relationship with the resource corporation and the nurturing of that relationship.

Ultimately, the problem lies in how to meet all objectives: jobs, environmental quality, independence and political integrity. The objectives may not, in the end, be compatible. Certainly, some Ross River leaders feel that employment is a necessary evil. They will have to get in bed with mining companies, but valleys and drainages will be lost for food harvesting as a result of development because of environmental problems and perceptions of deterioration in water quality and the quality of wild meats. They fear the loss of significant portion of accessible and productive harvest lands over time from successive mining developments. The answers, if indeed the objectives can be made compatible, may require the Kaska to decide on their own criteria for environmental quality, sustainability, environmental protection, etc. and a forum for implementing them.

K. CONCLUSIONS

1. The Issues

Northern aboriginal economies are distinctive from non-aboriginal economies. Or, at least, they are distinctive from the way that most professional economists characterize non-aboriginal economies. Capital, real estate values, or rates of growth do not inform about northern aboriginal economies. On the other hand, domestic production and social and environmental issues do not generally figure in the analyses of non-aboriginal economics (although some economists argue that they should). The most distinguishing feature of the economies of rural aboriginal communities is their integration of the economic, social, cultural and environmental aspects of life. The abstraction of economic from social and environmental life is a large part of the problem that aboriginal communities have been struggling with.

The economic goals of northern aboriginal communities derive from the homeland vision. This vision sees the north as the local environment which has made social and cultural life possible in the past and which, if the land and resources are treated sustainably, will continue to provide the basis for social life and cultural change into the future as well. The linkage of social welfare, historical experience and culture with the environment is the subsistence economy.

Subsistence and kinship are the integrating forces for northern aboriginal societies. Use of land, harvesting, financing harvesting and distribution of the products are all organized along kinship lines. Settlement in villages and the costs of modern life have left aboriginal communities in need. A cash flow is now necessary for the meat flow of subsistence economies. Communities are looking for development opportunities; many people are unemployed and want jobs.

Aboriginal Canadians want improvements to their quality of life, but not as an exchange for environmental quality and sustainable use objectives. The objective of northern peoples is to continue the historical occupancy of their homelands as socio-politically recognizable peoples. There are serious concerns about the ability of non-renewable resource developments, tied to global markets, to provide the sustainable and self-reliant future desired. The bush economy is the only proven sustainable northern resource. At the very least, fish and wildlife will be

necessary to provide for people after the local non-renewable resources are depleted and when global demand for northern commodities declines. However, If aboriginal peoples are going to keep living in place, they require both cash and the produce of the bush.

The critical question is how to combine quality and productivity of the environment with cash earning opportunities. Once the political problems have been dealt with, what are the conditions or criteria for developments to be considered a compatible part of the northern aboriginal economy? Although the question is easy to ask, the answers are not readily available. Ross River has been struggling with this issue for decades. Their experience is instructive, but the results are not encouraging.

2. The Modern Economy

The modern Ross River aboriginal economy is based on a mix of food harvests, fur harvests, firewood and plant harvests, wage labour and transfer payments. Nearly all households are involved in the subsistence harvest sector. During the early 1980s, 41% of the band's income/income-in-kind came from the subsistence harvesting sector, 36% from wages, and 23% from transfer payments. Harvests made an estimated .77 kilograms of meat available for each person daily. However, Ross River per capita income, even factoring in the subsistence sector, was far below that of average Canadians and only slightly more than 50% of Yukon per capita income.

The band was by far the most important employer. Employment for the 2 senior governments was the second most important source of jobs. Non-native business and the mining industry provided very few jobs.

Limited data from the early 1990s indicated that the earlier patterns still hold. The largest number of people, the vast majority of band members, considered hunting and fishing as the most important source of their livelihood. Household incomes were based on amalgams of the 3 sectors. In 1992/93 only one-third of households were involved in the trapping side of the economy, but nearly all households had at least one member who was a food harvester.

It is clear from the limited economic accounting available that the economic functioning of households requires a high degree of cooperation and social organization. It is therefore linked to social issues

and, ultimately, to community health. How aboriginal households manage their economics is an important research question; and it may provide useful indicators for the social health and quality of life of aboriginal communities.

3. Goals

There is broad community agreement that preserving the ability to hunt and fish are important economic values. Nested in this is the maintenance of environmental quality and productivity as economic goals. Band members also need opportunities to earn incomes. The goals are for development opportunities which provide cash incomes for band members, but which do not negatively affect fish and wildlife productivity or the ability to harvest and which do not create undue disturbance which prevent people from living on the land according to the modern adaptations of Kaska traditions.

Women, in particular, feel that economic development cannot be treated separately from social needs. Social service jobs are the most desired forms of employment, since they provide earnings while helping the community. Education tops the list of needs. Education and skills levels are generally low, and women feel that they should be made priority areas. However, education should not result in a replacement of Kaska values for western. The women emphasized that education should be at the heart of development.

a. Acting on the Goals

The band has approached these goals on a broad strategic front, using a combination of political, environmental, economic, and social development. Long-term planning has focused on the settlement of Yukon land claims. Short-term and mid-term approaches have focused on creatively using government program money to spread employment benefits as broadly as possible and seeking contractual relations with local mining companies.

The band also created the RRDDC as its business, job creation, and skill-upgrading/training agent. The RRDDC was charged with overall planning and coordination for band and band member business ventures. As a job creation agent, its role was to identify 'strategic' businesses and developments on Ross River Dena lands; enter into employment agreements; and monitor both the compliance with the agreement and

job success of band members.

4. Economic Opportunities and Problems

The Ross River Dena have been assertive about their rights and interests. During the 1980s they engaged in a detailed economic planning process, using the RRDDC and local developments as vehicles for band economic development and job creation. The efforts, however, were a major failure, resulting in a state of crisis for the development corporation during the early 1990s. There are important lessons to be learnt from the experience.

The mining sector is the major source of economic opportunities on the Ross River lands. Its reliability for the band's economic goals are in question. During the summer of 1993, the Yukon mining industry was once again in collapse. The Faro mine, operated by Curragh Resources Inc., had been closed for some time; and Curragh was in the process of declaring bankruptcy.

Smaller mine development proposals were active. Wheaton River Minerals had purchased a number of properties in the area, including what remained of the Canamax operation. New promises were on the table in discussions between the band and Wheaton. The question is: What measures are necessary to avoid a repeat of the experience with Curragh and Canamax?

A frontier ethic is still prevalent among many business people in the north. Mining companies invest in the Yukon because of unique resources and, what in the past was, a relatively unrestricted regulatory environment. The papers exchanged between aboriginal parties and the companies speak of mutual benefits. Ross River's experience to date has been of costs with little benefit. The discussions are still based on the notion of trust for new players in the game; but the band's experience calls for wariness rather than trust. Attempts at developing agreements leading to mutual-aid and mutual benefit linkages with business ventures operating on traditional lands have collapsed due to the recession and to the fate of the major mining company in the Territory.

a. Education and employment

Unemployment is a chronic problem in Ross River. The Ross River Dena had the second highest rate of unemployment in the Yukon in 1987. Employment availability is a problem, but so too is the low level of formal

education, which limits the potential for employment.

The easiest way to deal with this problems is to place a priority on children already in school. However, program cuts made in Whitehorse to deal with other people's priorities have worked against placing a preeminence on education and threaten to further lock the band into the present untenable situation.

b. Land claims settlement

Land claims settlement and implementation will result in economic benefits and in risk. New jobs will come available from implementation; and the settlement cash should provide capital for business investment. However, more education and training will be necessary before band members can assume the new roles.

Settlement means changing largely undefined aboriginal rights to defined rights. The groups entering into the new regime need to make sure that it conforms with their vision of the desired future before ratifying any agreement.

One of the advantages of settlement is the power which comes from large blocks of capital. The Ross River people have been unsuccessful in their attempts at joint ventures and convincing mining companies to give them preference in jobs and contracts. At the least, the power of aboriginal capital would change company's perception of risk in taking unilateral actions against aboriginal interests.

The question is whether settlement can be applied to achieve the band's broad goals. There is fear that settlement will open a Pandora's Box of land alienation and resource development. The UFA structure is complicated. Protection of environmental quality and productivity falls in several sections. Each has to operate successfully to protect the base for subsistence. Experience elsewhere indicates that successful implementation has its own problems, not the least of which is shared goals among the different agents and the good will to bring them about.

c. Modern subsistence

Subsistence is a social and cultural system, tied to the identity of northern natives as aboriginal people. Changes have resulted in adaptations to fit modern aboriginal life, rather than replacement with other systems of organization. A variety of constraints operate on the

Ross River harvest sector. Productivity does not appear to be limiting factors for the more important resource species. However, different forms of competition is a major problem. Competition, at its broadest, includes: conflicts over habitat, allocation, and disturbance. Ross River territory is one of the main areas of mineralization in the Yukon. Many mining proposals are short-lived. Each new development results in a shrunken subsistence land base due to environmental impacts and harvesters' fears of health problems from drinking affected water and eating local animals. The other aspects of competition, allocation conflicts and disturbance, are also generated by development, through the construction of new roads. The land claim agreement has provisions to deal with these issues and may be the avenue for converting wildlife and fish policy from recreation to subsistence economics.

The most significant event in northern aboriginal life during the 20th century has been village settlement. Settlement has had vast implications for subsistence and has exacerbated the problems resulting from development impacts. Settlement made most harvesting lands distant from the regular place of residency. Ross River Dena land use has shifted from broad area patterns to patterns of use dominated by road-access corridors. Travel costs have become a major issue in the continuance of subsistence harvesting. Employment is one of the methods used to underwrite the costs of travel. However, the current Ross River subsistence strategy has made harvesting doubly vulnerable. A cash flow is required. The constant need for cash makes a variety of development schemes attractive. At the same time, the strategy has concentrated the harvesting area along road corridors, leaving this sector of the economy seriously vulnerable to development impacts and competition with and disturbance from other users.

5. Business Experience

The Ross River Dena have had a very mixed experience with business as a vehicle for community economic development. On the one hand, they operate what some observers feel has been the most successful aboriginal business in the Territory, the Dena General Store. On the other, well considered attempts to establish business linkages with mining companies and mining service companies had been an abject failure to 1993. The store had many problems, but the dedication of staff and community leaders enabled the operation to persevere and resolve most problems. The burdens of the work required, discouragement at other business attempts, and the lack of recognition resulting from band

public misunderstanding about the ownership and benefits of the business acted as discouragements to the people whose efforts carried the business forward. This is another example of the problems of concentrated leadership. Other business successes resulted from band members acting as sub-contractors on band housing contracts. Generally, successes came from internal dealings, such as band house construction. Failures came from trying to enter the non-native business sphere.

The RRDDC was set up as a post-claims institution. It was to manage the assets from settlement, to create jobs and businesses. The premise was that the corporation would have a large block of capital available for its efforts. That has not happened and the corporation has been dependent on government program funding.

The lesson appears to be that dealing with the ultra competitive Yukon business environment is very risky for people who require success. Yukon business ventures have high degrees of risk. It is a difficult environment for groups with limited resilience, such as aboriginal communities.

The band's experience with the Ketzia Mine and the joint-venture relation with the petroleum products distributor left corporation and community leaders feeling defeated. Well-considered business development plans were drawn up during the late 1980s, relying on the counsel of experienced professionals. Perhaps what was not considered in the planning was the ultra-competitiveness and short time commitments of the Yukon mining industry's version of frontier economics. Planning requires a full analysis, considering the Yukon business environment and the means required to 'level the playing field'.

Perhaps the model is at fault. In the past aboriginal peoples were to be labour. The current model stresses the development of aboriginal business-people. Both have cultural constraints; they require significant cultural learning for success. The alternative model is ownership of the resources. Ownership allows both for the collection of resource rents and decision making for proceeding with developments. Land claim settlement has provisions for some degree of resource ownership. The question is: Are the land and resource provisions of the UFA sufficient and adequate for the ownership model to be a major part of the mix of future aboriginal economics?

6. Economic Linkages

Ross River experienced the social and environmental impacts of mining development and little, if any, of the benefits. The Ross River Dena Council and the Kaska Nation were interested in establishing working relationship with mining companies to change this experience. The objectives were employment and business benefits; compensation for losses to subsistence, particularly for the elders who were most affected; and environmental assurances. The major environmental issues are acid mine drainage from existing mine developments and the rehabilitation of damaged lands after the mine closes. The performance of companies and their behaviour were not re-assuring about promises. Curragh maintained a stance of distancing itself from having to pay money up-front for financing the environmental works necessary to rehabilitate the mine's major impacts. To outside observers the messages of these behaviours suggested the continuance of the past take-the-money-and-run history of frontier mining in the Yukon.

The experience of the Ross River Dena leads to doubts about whether mining companies and industry suppliers are good partners. It also raises questions about the measures necessary to 'level the playing field' for aboriginal communities. The Ross River Dena Council carries two economic concerns: jobs/ business opportunities and environmental quality/productivity. Potential business partners like Curragh do not bear the same constraints. They have to comply with legal restrictions on their environmental activities, but their objective is to provide benefits to their owners and investors. And they use all of the legal and lobbying means available to them for those goals, as indicated above. The mining companies do not have the direct connection between environmental change and assessments of their success which aboriginal governments carry.

a. Kaska Nation

One of the possible ways to 'level the field' is through the creation of power or a perception of power. The Kaska Nation represents such an attempt. The vision comes from the Kaska themselves, particularly the elders. However, enacting the vision is complicated by fixed Canadian jurisdictions created by the provincial/ territorial boundary line. In 1993, changes in the Yukon Umbrella Final Agreement threatened the Kaska Nation vision, and the possible benefits tied to it. Changes to the UFA which would allow a Kaska national political identity, were possible. However, they required agreement of all parties. The governments, in

particular, appeared resistive to changes. Many things were at risk, as outlined above. For Ross River and the other Kaska to succeed at increased self-reliance requires some degree of power shift. The Kaska Nation vision represented an indigenous attempt to create the power necessary to survive in the ultra-competitive Yukon business climate.

7. Creating Guidelines for Compatibility between Resource Development and Subsistence

Ultimately, the problem lies in how to meet all objectives: jobs, environmental quality, independence and political integrity. The objectives may not, in the end, be compatible. The answers, if indeed the objectives can be made compatible, may require the Kaska to decide on their own criteria for environmental quality, sustainability, environmental protection, etc. and a forum for implementing them. Whatever the outcome, solutions require an understanding of subsistence from the inside.

Subsistence is the stable part of the economy and is fundamentally tied to social and cultural values. These conditions require conservative responses to habitat altering resource development proposals. Some Ross River leaders look on employment as a necessary evil and feel they will have to get in bed with mining companies. At the same time they feel that the mined valleys and drainages will be lost for food harvesting because of environmental problems and perceptions of deterioration in water quality and the quality of wild meats.

Success in subsistence economies depends on three factors: the productivity of animal populations; peoples' detailed knowledge of the local environment and animal behaviour; and the ability to use the knowledge to effect harvests. Subarctic Indian hunting economies also require resource alternatives due to natural changes in animal populations. The resource alternatives represent the resilience required for the continuity of human life in the harsh subarctic environment over long periods of time. The Ross River economy is subject to less resource variance than many others because of the abundance of and reliance on ungulates. The availability and productivity of moose and caribou on the Ross River territory is a large part of the reason the Ross River Dena have remained one of the more traditional Indian bands in the Yukon, even in the face of severe dislocations and resource impacts.

Impacts to aboriginal land use can be grouped into several categories:

- problems of access;
- changes in resource abundance;
- health concerns about the quality of the resource;
- competition from other resource users;
- changes in the ability to harvest; and
- disturbance to cultural and economic life.

Subsistence land use is fragile, and needs to be considered as such by planners and governments. Impacts need to be considered from an aboriginal user perspective, rather than from Euro-Canadian or western scientific standards. Aboriginal users rely on their own standards for decisions (e.g., Weinstein 1990). Those standards are identifiable, if not easily measurable. They may be compatible with scientific standards developed for state regulation. For the most part, however, they appear not to have been considered by planners. They are, however, the judgments that Indians rely on to make decisions about land and resource use. Accordingly, they need to be treated with the same seriousness that rights to harvest are given.

L. RECOMMENDATIONS FOR IMPROVING THE ECONOMIC ENVIRONMENT

Before going to Ross River during the summer of 1993, my intention was to style these recommendations into 3 broad groups: a set of changes which the band could act on; a set which could be accommodated within the existing land claims process; and a set which required government policy intervention. As often happens after the splash of real aboriginal-world complexity, clear and simple objectives no longer appear appropriate. There is a lot of overlap in the tasks and, as well, the Kaska were making arguments about significant structural changes to land claims which have important economic implications. Many of the more important issues have no easily seen solutions. Rather than create easy to act on numbered recommendations, this section is written as a discussion.

1. Education and Employment

The Commission's mandate is about the future of aboriginal communities. The children, their welfare, and potential need to be the priority for economic or other recommendations. Today's children will need jobs when they become adults, not as a replacement for subsistence but as part of the modern economic mix. The band's goal is for jobs which are not in conflict with subsistence. Whatever jobs or roles today's children take they will need more and better education than they presently get. The band will need new leaders, managers, and people with technical skills if they are going to be successful in implementing any claims settlement. Millions have been spent in negotiations; many more millions will be spent in implementation. Success will only result if a new generation can assume the many roles required for implementation.

Improving the education, training and skills development of today's Ross River Dena children needs to be the prime recommendation. There are many problems. Very few children remain in school into high school. Few have graduated. There are indications that this priority is not shared by people who make funding decision in Whitehorse. Funding for special needs teachers in the Ross River school was pulled in 1993. Children with behavioural problems resulting from a history of family substance abuse disrupt classes. Without special needs teachers, these children would be reintegrated into the classroom, placing the education of both these children and the others at risk. A serious and carefully considered investment needs to be made into the education of the current

generation of Ross River Dena children.

Adult upgrading also needs to be encouraged. Self-confidence is required for people to make the decision to enter an educational program and to persist at it. Life skills training would be useful. However, building confidence requires validation and respect for aboriginal ways. A cross-cultural life skills approach which shows how both cultures accomplish the same ends and differences in how both communicate would teach that Kaska have their own skills but need to learn about those of the majority culture to work in a cross-cultural environment. This approach has important implications for overcoming the difficulties which both Kaska and industrial employers have faced with work conditions, which has resulted in such an appalling record of work failure.

The problems result from conflicts between 2 world-views, although the problems are often characterized as resulting from 'lacks' on the part of Kaska employees: a lack of life skills, a lack of training, a lack of motivation, immaturity, etc. Kaska culture is differently constructed. For example, synchronized scheduling to the minute or hour are not part of the Kaska tradition. Part of the reason that Kaska get into problems at work is that they do not understand the inter-relatedness of industrial work. If the equipment sits idle, money is still being spent; you have to work on schedule; schedules need to be followed because work is linked and coordinated; if you do not feel like working and simply do not show that it affects a larger share of work than one person's; and so on.

There are also cultural differences in communication and differences in conflict resolution and management. For example, some aboriginal groups avoid creating conflicts through leaving a lot of room in their response. In this view saying 'no' results in a conflict, so people strategically avoid creating situations where others may be forced to say no. Asking "Can I borrow your axe?" may force a person to say no and result in their feeling ill at ease. An indirect request such as: "I am going to hunt beaver today, but I broke the handle on my axe" does not require any response if the person does not want to loan his axe.

Kaska are not assertive in the workplace. This may be part of the Kaska solution to conflict management. They do not say what they want on the job. They do not discuss problems. Consequently, they do not problem solve in the white way. In mining, this may result in Kaska

employees not bringing parts which are wearing out to the attention of supervisors in time to avoid a work stoppage.

The problem exists on both sides. Kaska need training in non-native ways relevant to employment tasks, but mine managers and supervisors also need a life-skills course from the Kaska side. The cross-cultural understandings need to address questions of how respect and prestige are expressed in both cultures -- how saying 'no' is tied to these. Meaning is expressed in small exchanges. But these small actions are understood differently by people from different cultures.

However, mining companies and senior personnel do not think of their role as labour force and human relations development. The notion of *nurture* is missing on the frontier. One approach to this problem may be to require companies who want to develop resources on aboriginal territories to include a cross-cultural human relations officer among their executives. The position would require power and a senior voice. Implementation needs a voice with seniority equivalent to officials who look out for cost and market interests.

There is also a need for on-site aboriginal supervisors and liaison officers to act as intermediaries and provide advice to Kaska employees. Kaska will need to learn that they can say 'no' to an on-the-job authority. However, the problem of saying 'no' is more complicated than having the right. Saying no, unless a person is skilled, often has consequences which result in conflict. However, in mines using heavy equipment people need to be able to use their own judgment. Dangers are present for workers and machinery, and judgment and assertiveness are required. Workers need to make judgment calls about taking machinery off line for repair and maintenance. Sometimes this conflicts with the expectations of supervisors.

2. Band Leadership and Management Staff

Recruiting and encouraging band leadership is an area that needs to be deliberately addressed. The new institutions required for the implementation of land claims as well as new business ventures will require large time commitments. Continuous development of new, younger leadership and management talent should be a priority. This might take the form of a mentoring program for young people.

The band's roles are continuously expanding, but funding and positions

for the expected participation are not. The best example of this is the band's hard-won place in environmental impact assessment and management. Lack of a specific position and a trained staff member to deal with this area limits the band's involvement to crisis control. If the band is to play a role in environmental management, funding needs to be made available for new staff and costs. The implementation of land claims will involve a restructuring of wildlife, fish, and environmental management in Yukon. The current claims structure gives a important voice to communities through the management board and councils. Success of these new institutions requires adequate levels of funding for staff at both the territorial and band levels. Given the expectation of these new institutions as the means to deal with questions of resource allocation and other forms of competition and the time it has taken to come to this solution, it would be seriously counter-productive to fail because of providing inadequate resources at the outset.

a. Continuity

Both the council and the corporation have been experiencing a high rate of turn-over in key positions. This has often resulted in a crisis. The next person to take the position is often left without an understanding of what went before. Each position has a history that is part of the band's policy development. Passing on that history needs to be part of the training for the position.

3. Conditional Resource Development Permits

The extreme competition which operates in the Yukon mining sector requires something more than good will and dependence on slow, inflexible government programs for financing if aboriginal business are going to benefit. Southern companies invest in the Yukon due to unique conditions, such as mining deposits. This is a useful model from which to think about how to re-structure relations so that aboriginal groups can obtain benefits without having the cards stacked against them in competition. If similar opportunities were available in the south, the mining companies would not be interested in Yukon investments. The conclusion that comes from this model is that development needs to be directly tied to benefits to First Nations on whose lands they occur as a condition of the license or permit. Then the competitive balance shifts because Indian success becomes a problem for all parties.

Without this type of incentive the problems of employee social problems, low education standards, cultural differences, communication difficulties,

and so on are easy excuses to replace Dena workers with southern fly-in staff whose on-the-job problems are more familiar.

Power can come from conditional resource development permits in which permission to proceed is conditional on success: in reaching aboriginal employment goals; and in social and environmental impact prevention.

4. Land Claims

As discussed above, the Kaska Nation vision is a possible solution to the difficult problem of creating power for Ross River and the other Kaska to participate and compete with frontier resource businesses. This is a solution which has come from the Kaska themselves.

The intransigence of the senior governments to changes in Yukon claims to allow for a trans-boundary claims structure threatens the vision. Flexibility and a willingness on the part of Canada, Yukon, and British Columbia, as well as the CYI, will be necessary to open the process.

5. Fish and Wildlife as Economic Resources

For the Ross River people fish and wildlife are economic resources linked to their history and cultural identity. Fish and wildlife need to be treated as important economic resources by the agencies responsible for making decisions about fish and wildlife and the habitat on which they depend.

6. Sustainable Development

The concept of sustainable development has particular importance for northern aboriginal subsistence-based communities. They rely on the natural productivity of the land for a significant part of their livelihood. They are also fixed to place. The concept of 'sustainable development' has gotten wide play. The problem has been with its implementation. An understanding of what is meant by 'sustainable' and what is to be 'sustained' have been problematic. In business there are well-used and understood standards. This is not true for environmental assessment. There are no universal standards equivalent to such things as "the bottom line".

There are two relevant issues here for aboriginal peoples. First, what are the standards to determine if a development proposal is 'compatible' with subsistence goals? Second, what institutions and standards are necessary to set limits when aboriginal parties are the resource developers?

Guidelines for developing standards for 'compatibility' were discussed in section K.7. The present generation of environmental assessment legislation makes heavy use of the term 'significant', as in 'significant environmental impacts'. The legislation tends to be empty about whose standards should be used to determine whether impacts are significant or not. The discussion in section K.7 stresses that, when assessing the significance of impacts on subsistence, aboriginal values and standards are the ones which need to apply.

Second, how should business and environment interests be balanced when First Nations get involved in the resource business and when there are direct conflicts between different aspects of the aboriginal economy, as well as cultural conflicts? These are the same conflicts which are being felt so powerfully in non-native communities and have been so divisive. Two models tend to be followed, one political and the other technical. Both have problems. The first invites conflicts of interests from personal gain or a personal interest in the development.²⁶ The problem with the technical solution is that it tends to create another structure which distances the affected people from the decision-making process.

One way around these problems is the creation of a formal Elders' Council which has responsibility for making decisions about the acceptability of proposals. In Ross River, the elders already act as monitors and as the voice of sanction. For example, in assessing developments the elders act as the first tier of the Kaska Inc. assessment process. If a project is thought in keeping with larger goals, then the due diligence assessment proceeds. Otherwise, the local veto over Kaska Inc. involvement is called into play. The change required would be to create an Elders' Council as a formal body in the decision and monitoring process.

7. Monitoring, Evaluation, and the Adaptive Management Model

One final point: situations with high degrees of uncertainty need to be treated as trials or attempts rather than solutions. It is possible to learn and draw conclusions by monitoring results, thereby reducing the degree of uncertainty for the next trial. Essentially, this is an adaptive approach to solving problems. The recommendations above are just that. If they are implemented, they should be considered as learning trials which need monitoring, evaluation, and eventual restructuring according to what has been learned.

ENDNOTES

1. For a discussion of different models of socio-economic impact assessment and the models of aboriginal social change which is embedded in each see Usher and Weinstein 1991 and Usher 1993.
 2. The Diary of Joe Ladue, 1936-37. Yukon Archives. MS0016; folder 4.
 3. Diary of Joe Ladue. Ibid.
 4. Honigmann's work indicates that for the Inuit of Great Whale River, on the Hudson Bay Coast of Quebec, the most important source of cash income during the early post-War years was family allowance payments.
 5. A statement attributed to an unidentified Indian Affairs official in Whitehorse during the summer of 1970, quoted by Miller (1972:1).
 6. See Helen Etzel's testimony before the Alaska Highway Pipeline Inquiry, pp. 2658-2735: 10 June 1977.
 7. An attempt was made to compare the Ross River Indian mortality figures with statistics for similar Indian groups in Yukon. If the Ross River accidental or alcohol-related deaths can be shown to be significantly higher than other rural Indian bands in Yukon, it would be a reasonable conclusion that the deaths are related to the transformations that took place during mine development and operation.
- To do a proper assessment of deaths due to development related impacts requires being able to determine the extent of mortalities that occurred due to the general social changes that were happening in Yukon during the same period. This requires the use of comparable statistics for groups who were going through the same process, but were not affected by a massive resource development, such as the Carmacks-Little Salmon Band or the Selkirk Band.

However, the only Yukon Indian mortality data we were able to locate (from Medical Services Branch, Health and Welfare Canada) was for the territory as a whole and only went back as far as the middle 1970s. Because of a lack of available data for other bands, a comparison could not be done.

8. Robert Sharp, who had been principal of the Ross River school, also made a presentation on the socio-economic impacts of major resource developments to the Lysyk Inquiry, based on the experience of the Ross River Kaska with the Faro development (Sharp n.d.).

9. See the appendix in Dimitrov and Weinstein (1984) for details of the weight estimates used.

10. Environmental quality is essentially a perception; and perceptions have cultural components.

11. Although research has not yet been done on Ross River Dena activities in defense of their rights and interests prior to the early 1970s and the change in land claims policy in Canada, there are indicators of 'political action' at earlier dates. The actions taken during the 1950s to prevent the loss of traplines were efforts to prevent the erosion of aboriginal rights to harvest wildlife.

12. The newsletter was produced by Helen Etzel who, at the time, was RRDDC General Manager.

13. About 57% of the 253 resident Yukon non-native hunting on the North Canol Road during fall open-season in 1991 were from Whitehorse; 37% were from Faro; 3% from Ross River; 3% from Teslin; and 1% from Beaver Creek (Florkiewicz and Anderson 1992). The survey also looked at the residency of resident Yukon non-native hunters flying-in to various locations in the Ross River Wildlife Management Area during the 1991 season. About 80% of the 100 fly-in hunters were from Whitehorse; 11% from Faro; 5% from Watson Lake; and 4% from Carmacks.

The survey conducted by YTG biologists indicated that licensed resident Yukon non-native hunters killed 37 caribou and 58 moose on the North Canol and Ross River Wildlife Management Area portions of the Ross River lands during the 1991 open

season. The native harvest was 7 caribou and 11 moose during the same period. The authors recognized that the annual native harvest is higher, since hunting is not restricted to the "open-season" (Florkiewicz and Anderson 1992).

14. The lunch counter for the new store was given up after deciding that it was not worth keeping open. The problem was getting consistent staff who would show up for work each day.

15. Letter 18 October 1985 from Robert McCandless, Manager Environmental Assessments and Appraisals, EPS to Brian Lendrum, Secretary Yukon Territorial Water Board.

16. Letter of 5 September 1985 from Ralph Sultan, Curragh Resources, to Earle Forgues, President Cyprus Anvil.

17. Letter 18 October 1985 from Robert McCandless, Manager Environmental Assessments and Appraisals, EPS to Brian Lendrum, Secretary Yukon Territorial Water Board.

18. The YTWB asked for a security deposit of \$943,700, which was its interpretation of the maximum amount that could be required under the Northern Inland Waters Act.

19. The clauses within UFA which seek solutions to the transboundary problem are not adequate to deal with the Kaska situation. For example, although section 2.9.3 of the UFA obligates all parties to seek ways to remedy transboundary overlaps, it is limited to resolving Yukon First Nation territorial overlaps. Chapter 25 deals specifically with transboundary agreements. Although the body of the chapter states:

25.3.1. Nothing in this chapter shall preclude a Yukon First Nation and a transboundary claimant group who are parties to a Transboundary Agreement from making agreements in respect to sharing of their lands, resources and benefits or from developing their own forms of internal relations,

the chapter also has some revealing and troubling clauses which give the Kaska great misgivings about the likelihood of governments ever coming around to their vision of

nationhood. In particular, section 25.5. provides the definition for 'Subsequent Transboundary Agreement'. 'Subsequent' is intended to mean subsequent to the ratification of the UFA. However, 25.5.1.2 specifies that amendments made prior to ratification of the UFA will be also 'Subsequent Transboundary Agreements. It is not clear what is intended here, but the Kaska are concerned that the clause will disarm the agreement they signed with governments in 1989.

20. Section 25.5.5 of the UFA has also resulted in considerable apprehension. It specifies that Canada will not independently agree to transboundary agreements which primarily affect matters in the jurisdiction of the Yukon. The clause resulted from the anger of the Yukon Government over the land claim agreement with Fort McPherson, which included land and resources in the Yukon without the agreement of the YTG. The section effectively gives the Yukon government a veto over Kaska transboundary matters. And it leads the Kaska to see the transfers of resource jurisdictions for gas and oil and forests in a conspiratorial light.

21. See, for example, the issue of *Journal of Theoretical Politics* edited by Elinor Ostrom (Ostrom 1992).

22. Report of Kaska National Workshop RE National Economic Strategy at Lower Post, B.C. Feb. 11-15, 1991.

23. *ibid.*

24. Kaska National Economic Accord, April '91.

25. The standards used to the time of writing were those imposed by government. A way to operationalize Kaska standards within the 'due diligence' assessment had not yet been developed.

26. For example, people involved with a development proposal do not tend to be objective. They have an interest in seeing it go ahead even without personal gain.

APPENDIX 1: Questionnaire

ROSS RIVER DENA -- ABORIGINAL ECONOMY CASE STUDY

RECENT ECONOMIC ACTIVITIES

INTERVIEW DATE _____

HOUSE NUMBER _____

A. Who are the people, 15 years of age and older, who are currently living in this house?

HOUSEHOLD RESIDENTS (15 years and older)	<u>AGE</u>	<u>SEX</u>	RELATIONSHIP TO THE <u>PERSON ON LINE 1</u>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____

B. What do each of these people do?

How would you describe the way that each of these people generally makes a living or contributes to the livelihood of your household?

PERSON

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

C. Sources of income -- 1992-1993

Could you list each person's sources of income during the last year? The "last year" we are asking about runs from the start of summer 1992 to the spring 1993 (June 1992 to the end of May 1993).

C.1. 1992-93 HARVESTING

-We are including hunting, fishing, plant and berry gathering, and production of firewood for your own household as part of income, even though they do not produce cash. List the type of harvesting activity. Include trapping and handicraft production.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

C.2. 1992-93 WAGE EMPLOYMENT

-List types of employment and length of time in months. If less than 1 month, write "less than 1 month". (If a person was in school include that in this section.)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

C.3. 1992-93 TRANSFER PAYMENTS

-If income was received from a government transfer payment program (e.g. unemployment insurance, old age pension, family allowance, child tax credit from income tax, disability pension, welfare, etc.) list the type of program from which money was received.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

C.4. 1992-93 BUSINESS OR INVESTMENT INCOME

-If there was income from business or investment, list the type of business or investment.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

C.5. Which were each person's 3 most important means for making a living during this period? Circle the 3 most important and rank them as 1, 2, or 3.

D. Sources of income -- 1991-1992

Finally, we want to ask about each person's income during the year before the last.

Could you list each person's sources of income during the year before the last.
The "year-before" we are asking about runs from the start of summer 1991 to the
spring 1992 (June 1991 to the end of May 1992).

If the person was not living in your household at this time, write "living
elsewhere".

D.1. 1991-92 HARVESTING

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

D.2. 1991-92 WAGE EMPLOYMENT

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

D.3. 1991-92 TRANSFER PAYMENTS

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

D.4. 1991-92 BUSINESS OR INVESTMENT INCOME

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

D.5. Which were each person's 3 most important means for making a living during this period? Circle the 3 most important and rank them as 1, 2, or 3.

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