

HISTORICAL FACTORS AFFECTING  
FOOD CONSUMPTION PATTERNS IN NORTHERN CANADA:  
II THE ARCTIC DRAINAGE DENE

A report prepared for the Northern Social Research Division  
Department of Indian and Northern Affairs

Prepared and submitted by:

Ron Duffy

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Date: 11 May 1978

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## Chapter One

### Introduction

#### 1.1 The research problem

The purpose of this report is to describe and explain the impact of various historical factors on the food consumption patterns of the Indians of the Mackenzie and Yukon districts of the Canadian Northwest. There is wide general agreement that the dietary habits of these Indians are different today from what they were in earlier times but there is no such clear recognition of the transitional stages through which food consumption patterns have passed since the first sustained contact between the Indians and the white men, nor of the most significant factors responsible for the changes. This report therefore deals with three basic questions:

1. What were the food consumption patterns of the pre- or early post-contact Indians living under their traditional cultural system before it was changed utterly through contact with Europeans, southern Canadians and Americans?

2. What changes in food consumption patterns resulted from increasing contact with non-Indian peoples and from the accelerating introduction of non-Indian cultural elements and activities?

3. What were the attitudes of those responsible for the administration of the North and its people to changes in the dietary habits of the Indian, and what changes did the



administration itself bring about as a result of official policies initiated in response to awareness of change?

The first question provides a descriptive base for identifying the traditional patterns of Indian food consumption and for reaching an understanding of the cultural meaning of these patterns. In this context one must bear in mind that food preferences and habits are an important part of any cultural heritage.

In a society where hunting is a central tradition, foods have a richness of meaning which stems from their procurement, distribution and preparation, as well as their eating. There are special ways of eating native foods which are reflected in sitting arrangements, implements used, and the distribution of the food, and are important not only to the individual but to the family. The provision of frozen beef cuts to replace muktuk, caribou ribs, frozen fish and ptarmigan soup would destroy these arrangements just as surely as would the provision of beans and bread as substitutes. Country food has nutritional, social and cultural values which cannot be replaced by any substitute and cannot be measured by market criteria or evaluated in cash. In short, food is an integral part of a way of life.

(Usher 1976:118)

The second question provides an analysis of change and its consequences in terms of new patterns of food habits and at the same time, with regard to the views expressed above, of new patterns of group living and preferred or obligatory lifestyles. Specifically this part of the report will

address itself to the introduction of new ways of life and livelihood by Europeans and North Americans and to the associated changes in the procurement, distribution and consumption of food. Indians who abandoned the traditional hunting ecology turned to trapping and to general wage employment and for those who could not find work in these new activities sufficient to support themselves and their families the trading companies and the Canadian government gave out relief issues of food, clothing and other necessities. Other important cultural changes introduced by the government which affected Indian food consumption patterns included the payment of Family Allowances and pensions, and the provision of education, health facilities and other forms of social welfare.

The third question deals with the impact of these government policies on Indian food habits. Responsible since the passing of the British North America Act in 1867 for providing medical care to Indians and Inuit, the Canadian government was sensitive to any cultural changes that affected the health of the native people and the costs of looking after it. Official attitudes to Indian diet and nutrition found expression in policies designed specifically to bring about changes in the eating habits of the native people so as to improve their general health conditions and reduce the escalating costs of medical care. Surveys of food habits and analyses of both traditional and imported foods were undertaken, instruction in nutrition and food preparation was made an important part of both school curricula and some adult



education classes, and attempts were made to control the kinds of food allowed to the Indians under various forms of social welfare assistance.

## 1.2 Background to the problem

In recent years there has been a growing awareness of significant malnutrition among the populations of generally affluent societies and of the fact that within such societies malnutrition is most prevalent among minorities subject to rapid cultural change. This situation exists in Canada. Nutrition Canada reports (1973, 1975) have suggested that Canadians in general have low standards of nutrition, but that the lowest are those of the native peoples.

The native peoples of Canada have been caught in a nutritional trap sprung by their change-over from wholly traditional foods and eating habits to a diet more akin to that of southern Canadians. Obomsawin (1979:5) made the point strongly when he wrote:

Today it can be said that tens of thousands of Indian people in Canada subsist largely on products that are demonstrably destructive to their physical, mental and spiritual strength and development. The indiscriminate sale and promotion of junk foods, refined sugar, flour, soda pop, artificial and other processed foods that are devoid of the protection, and life giving properties inherent in traditional whole foods is, putting it mildly, a national crime and disgrace Emphasis [in original].

In spite of his claim to mildness Obomsawin is expressing in extreme terms what many others have put forward with more continence. Even the strident anger of Davis and Zannis (1973:117) sounds more temperate:

The nutritional problem in the North is due largely to the introduction of southern foodstuffs into the diet of native peoples. The dangers of the industrial techniques of food preservation -- techniques which systematically rob natural foods of their organic vitamin and mineral content -- is pointed to by many nutritionists.

According to Sabry (1968:474) the pattern set in the first half of this century indicates that processed foods will constitute an increasingly greater part of our diet and may well soon become the sole source of our nutrients. The dangers are those that Davis and Zannis have pointed out: impoverishment of natural foods. Sabry describes the effect of the two processes to which foods are frequently subjected: condensation, which involves intensive heating, and extraction. The effect of heat processing on protein foods includes reaction between reducing sugars and amino acid residues which renders certain amino acids biologically inactive. In the process of extraction with chlorinated solvents a reaction with amino residues of the food proteins often results in the formation of toxic substances.

How far the northern Indian population will go along the path of full-scale acceptance of processed foods remains to be seen. Already there has been a shift from a traditional, mainly carnivorous protein-based diet to one increasingly



dominated by carbohydrates in the form of processed flour, white sugar and convenience foods. The result of the change has shown up in nutritional deficiencies and ill-health among the Indian people. The two are related. 'Medical services have in recent years become increasingly aware of the important role nutritional factors play in the total health picture of the native population'(1). Some of the deficiencies in the contemporary Indian diet were revealed by the Nutrition Canada survey (1975). Intakes of vitamin A 'were only marginally adequate' (Ibid:80) while the 'deficits in the intakes of calcium and vitamin D in Indians and Eskimos, like other dietary deficiencies in these groups, will probably require more extensive remedial action' (Ibid:98). Furthermore 'the majority of the participants in the survey had serum folate values which were classified at high or medium risk' (Ibid:119). 'Overall, the results indicated that overweight, obesity and elevated cholesterol levels are health hazards of major proportions which warrant emphasis in preventative programmes' (Ibid:37).

Agreement with the findings of the Nutrition Canada survey were voiced by several witnesses during the Berger Inquiry into the Mackenzie valley pipeline.

In testimony the medical authorities gave particular attention to changes in diet: native people are eating less meat, more sugar, and mothers have been encouraged to bottle-feed rather than breast feed their babies. Dr. Elizabeth Cass said the shift from country food to southern food has resulted in widespread myopia; Dr. Schaefer associated the change in diet with extremely high rates of child sickness

in general and with middle ear disease in particular. Dr. Mayhall described an epidemic of dental disease and the very high rates of tooth decay and gum disease in the North.

(Berger 1977:153)

Dr Schaefer<sup>(2)</sup> has described as 'other effects of nutritional change' acne vulgaris, obesity and iron deficiency anaemia, all of them unknown or extremely rare or mild in 'traditionally living native societies.'

Those most affected by the adverse changes in diet are young children and women of child-bearing age. The former are approaching the danger point in terms of adequate nutrition. Dr Schaefer warned a seminar in Whitehorse in 1975<sup>(3)</sup>, but many native peoples 'are at the stage of borderline malnutrition.' The major cause is 'the transition from traditional food sources and types to more urbanized food patterns.'

The source foods of the Indian culture were richer in protein and some Vitamins than the foods which are commonly consumed today. Sea mammals and game have far more protein per pound than even the leanest beef and as much as three times the food value per pound as pork. Rabbits, ptarmigan, fish, as well as plant foods like berries and rose hips produced balanced and nutritious diets which are often not matched today by store-bought foods.

(Ibid. Typographical errors corrected)

The same findings were made in Russia by nutritionists concerned about the changing diet of the Chukchi. Once eaters of reindeer and sea-mammal meat and fish, the Chukchi now



regard potatoes, vegetables, confectionery and canned goods as daily requirements (Astrinskii and Navasardey 1970:302) and bread, sugar and butter have become as basic as reindeer meat and fish (Zaitsev 1970:292-293). Better nutrition is believed to lie in 'a continuing increase in the yield from animal husbandry, primarily reindeer breeding. Reindeer meat is one of the best sources of nutritive substances; its protein content is higher than that of beef, veal, pork or lamb... The fact that reindeer meat is four to five times cheaper than local beef or veal should also be taken into account'(Astrinskii and Navasardey 1970:305). Canadian findings agree with the Russian. Surveys carried out by the Northern Medical Research Unit and by other groups have consistently shown that native foods gathered from the land contain much more iron, vitamins and minerals needed to maintain health than those foods bought in local stores<sup>(4)</sup>. Such surveys showed that northern native peoples were able to obtain in their traditional diets all the necessary iron, vitamins and minerals, while nutrition deficiencies, anaemia, malnutrition and obesity were increasingly found in population groups with little or no reliance on native food resources.

The solution to the nutritional problems in the North appears obviously to be a return to a more traditional diet. Unfortunately, as Dr Schaefer points out<sup>(2)</sup>, statements first made by private and public agencies and by interest groups pushing for 'development' and 'progress' -- 'meaning primarily mineral and other non-renewable resource exploitation' -- and then thoughtlessly and uncritically repeated by the public

media, politicians and 'others not encumbered by too much factual knowledge' have 'almost enshrined in the layman's mind as an indisputable truth...that native population growth and decline of local food resources have -- for all intents and purposes -- removed traditional food resources as essential means of sustenance.' Such is not the case, Dr Schaefer argues. Moose, 'the prime big game meat provider for Indian tribes,' has extended its northern range substantially and increased in population numbers. Small game, such as snow rabbits, muskrats, beavers and other fur-bearers 'are not less but rather more plentiful than in former times', and fish resources 'should continue with proper management to supply a substantial proportion of protein requirements for both Indian and Inuit...'

The background to the problem of changing food consumption patterns among the Indians of northwestern Canada is one of gradual and then rapidly accelerating acculturation accompanied by concentration of the native peoples into centres dominated by the alien culture of southern Canada, the growing acceptance by the Indians of the food habits of the southern Canadian population and the adverse effect of these food habits on their health and well-being. This report discusses the significant historical factors that affected the Indian food consumption patterns, inducing the Indians to abandon traditional eating habits that met -- and ostensibly could still meet -- all their nutritional needs, and to adopt instead many of the foods imported from southern Canada that have led to dietary deficiencies, diseases, obesity and malnutrition.



### 1.3 Methodology

The methodology used in the preparation of this report is taken from the general field of ecology. W. C. Allee and his associates (1949:1) have defined ecology as 'the science of the interrelation between living organisms and their environment, including both the physical and the biotic environments, and emphasizing interspecies as well as intraspecies relations.' Though devised with animal ecology specifically in mind, this definition of ecology does not exclude its application to human populations, especially if the cultural environment is added to the physical and biotic. Central to ecology in its application to both animal and human populations is the study of behaviour. The behaviour of animals, Nissen (1958:185) has argued, is a major contributing factor for their survival. 'Maintaining favorable relations with the environment,' he writes, 'is largely a function of behavior', and behavioural incompetence 'leads to extinction as surely as does morphological disproportion or deficiency in any vital organ.'

The fundamental behaviour in any population, whether animal or human, is the acquisition and consumption of food energy. This behaviour will largely determine the social organization of the groups involved, so that ecology is not only a behavioural science but a social science as well. Allee's subtitle for his book on animal ecology published in 1931 was A Study in General Sociology. Among human sociologists Amos Hawley (1944:399) recognized ecology as 'basically a social

science,' a fact apparent, he stated, in almost every aspect of the discipline.

In applying an ecological methodology to the study of human populations, the anthropologist Julian Steward (1955: 40-41) claimed that the 'behavior patterns involved in the exploitation of a particular area by a particular technology' will affect all other aspects of culture. This is the basis of Steward's cultural ecology. But because ecology stresses interrelations among variables, the behaviour patterns involved in subsistence techniques may in turn be affected by changes in other aspects of culture, and the associated patterns of food acquisition and consumption consequently altered. The relevance of an ecological methodology to the present study is thus apparent. While stressing the interrelationship of the natural environment and the main components of the cultural system one can analyze the changes in Indian food consumption patterns in terms of those historic factors responsible for changes in the main components of the cultural system, namely: subsistence behaviour, technology, informational input and social organization

#### 1.4 The Indians

The Indians studied in this report are mainly those of the Mackenzie River district of northwestern Canada, with some reference also to those in the Yukon drainage area. These are Athabascan Indians, members of 'one of the most widely dispersed groups of Indians in North America. In addition

to the Indians of the Northwest Territories and the Northern Yukon, they include the Koyukon and Tanana of Alaska, the Tutchone of the southern Yukon, the Beaver and Carrier of British Columbia, the Navaho and Apache of the Southern United States and still others in California and Oregon' (Berger 1977:6). The northern Athabascans were divided by Jenness (1932) into the tribes of the Cordillera and those of the Yukon and Mackenzie basins. Osgood (1936) revised this classification by dividing the northern Athabascans into those who belonged to the Pacific Drainage Culture and those who belonged to the Arctic Drainage Culture. One of the distinguishing characteristics was food consumption patterns.

There is generally among the groups of the Pacific drainage a dependence on salmon, which is entirely lacking among those of the Arctic drainage. With salmon fishing goes an elaborate complex of traits connected with the catching and use of this fish... In fact, the situation may be summed up by the statement that a consideration of over five hundred traits shows a generally decreasing complexity in the culture of the Northern Athabascans from west to east with a sharply distinctive break between the relatively rich culture of the Pacific Drainage peoples and the essentially simple patterns of behaviour of the Aborigines of the Arctic east.

(Ibid: 21)

Jenness (1932: 377) described the tribes of the Mackenzie and Yukon basins as essentially woodland peoples, like the Algonkians of eastern Canada. The largest of the northern Athabaskan tribes were the Chipewyans. Though the exact boundaries of their territory are uncertain and probably



fluctuated at different periods, they seem to have 'claimed possession of the vast triangle enclosed by a line from Churchill to the height of land separating the headwaters of the Thelon and Back rivers, another running south past the eastern ends of Great Slave and Athabasca lakes to the Churchill river, and a third east to the coast a little south of Churchill' (Ibid:385). After the Hudson's Bay Company established their trading post at Churchill in 1717 they supplied the Chipewyans with arms and ammunition. Thereupon the Chipewyans became oppressors rather than neighbours of the two Athabascan tribes to the northwest: the Yellowkives and the Dogribs. They denied these two tribes access to the trading post and forced them to exchange their furs for a fraction of their value in European goods. They even robbed these neighbours of their possessions and of their women.

The Dogrib Indians occupied the country between the Great Bear and Great Slave Lakes for at least two centuries, but for most of the nineteenth and early twentieth centuries the main body of the tribe was centred around Rae on the northern arm of Great Slave Lake and hunted over the territory to the north (Ibid:392).

The Yellowknife Indians were their neighbours to the east and hunted the country northeast of Great Slave and Great Bear Lakes. Also known in the literature as 'Copper Indians' and 'Red Knife Indians' the Yellowknives were sufficiently identifiable as a group to be allotted a territory and to be included in the signing of Treaty No 8 in 1899 (Gillespie 1970: 61). But by 1913 they were experiencing a gradual loss of

identity and merging with the Chipewyans (Mason 1946:12) although a report in 1928 makes a clear distinction between Chipewyans and Yellowknives<sup>(5)</sup>. Jenness (1932:388) notes that in dialect, appearance and customs the Yellowknives were 'hardly distinguishable from the Chipewyans' and Gillespie (1970) shows that by the 1960s the process of amalgamation of the Yellowknives with the Chipewyans and some with the Dogribs had advanced so far that the Yellowknives were unknown to the Dogribs by any of their names. This is surprising because in 1823 the Dogribs massacred many of the Yellowknives and 'effectively destroyed their power'<sup>(6)</sup> and a group does not easily forget the name of an enemy it has defeated in battle. 'The inability to identify or remember any Yellowknife Indians has not been just a Dogrib loss of memory. No Dene group in the Great Slave Lake area investigated is familiar with this group' (Gillespie 1970:62).

Another important tribe in the area that still survives with its identity intact is the Slave Indians. They occupied the country round Athabasca Lake, Slave River and the western half of Great Slave Lake till the middle of the eighteenth century and then, under the impulsion of invasion by Cree Indians armed by fur traders on Hudson Bay, they retreated down the Mackenzie River. By the end of the century their territory was a broad stretch of land behind both banks of the Mackenzie from its outlet from Great Slave Lake to Norman, together with the western end of the lake and the basin of the lower Liard.

Close neighbours of the lost tribe of the Yellowknives,

the Hare Indians lived north and northwest of Great Bear Lake, extending in the east to a little beyond Anderson River and in the west to the first line of mountains west of the Mackenzie. Osgood (1932:33) claims that the name of these Indians was not literally Hare People but 'big-willow people.' The similarity of the Athabascan linguistic roots of 'big-rabbit' (hare) and 'big-willow' have confused the terminology. But in all accounts of these people they are in fact known as the Hare Indians.

Next to the Hare Indians were the Kutchin or Loucheux Indians who inhabited both the basin of the Peace River, from its source to its junction with the Mackenzie, and the entire basin of the Yukon from the mouth of the Pelly River downward, except for a small strip of country around its delta in the Bering Sea.

About the Nahani Indians Jenness (1932:396) confesses that very little is known. He says they occupied the mountainous area between the upper Liard and the 64th parallel North and were divided into several tribes or independent bands, some of which have now disappeared. Honigmann (1956) argues that there never was a Nahani tribe. He says the name Nahani was used by Athabascan speakers to designate any remote or dis-trusted Indian groups as evil and untrustworthy, and that it should not be applied to any specific group or groups of Indians. The Athabascans, says Honigmann, rarely applied names to themselves. Bands referred to themselves simply as déné, or 'human beings', and names like Slave, Hare, Dogrib and others were appellations originally applied by neighbouring groups



or invading foreigners. But reports from northwestern Canada for over a hundred years include clear references to the Nahani as a distinct group. The Chief Factor of the Hudson's Bay Company in the Mackenzie area refers to them specifically on several occasions and calls them alternatively the Mountain Indians<sup>(7)</sup>. In the 1960s and 1970s the government's official pamphlet on the Indians of the Yukon and Mackenzie includes the Nahani as one of the seven Athabaskan groups who live North of 60° (Canada, Department of Citizenship and Immigration 1965; Canada, Department of Indian and Northern Affairs 1973). The meaning of Nahani in these official publications is given as 'people of the West' and their territory described exactly as Jenness described it. Two 'sub-divisions' of the Nahani are given as the Kaska and the Goat Indians.

Writing about the Great Bear Lake area and the Dogribs, Yellowknives, Hares and Slaves, Osgood (1932:33) mentions a fifth tribe, or politically autonomous unit, which he calls the Satudene or 'Great Bear Lake people'. 'It is uncertain whether they were always an independent group or whether they have become such during the past hundred years, due to conditions created by European contacts... Today they are politically, socially and linguistically different from the Hares and more often associate and intermarry with the Dogribs.'

Two other tribes included by Jenness (1932) among the Yukon and Mackenzie basin Indians are the Beaver and the Sekani, but these groups occupy territory too much to the south to be of much relevance to this report.

The word Déné, which the Athabascans used to describe

themselves, has, like the word Inuit, which has the same meaning, been capitalized and adopted as the name of a people who now recognize themselves as a single ethnic group with a shared cultural identity and political destiny. The Arctic Drainage Déné are the people with whom this report is concerned.

### 1.5 Data and background studies

Major changes in the cultural system of the Arctic Drainage Déné began through contact with representatives of European and North American cultural systems and the Indians' adoption from them of many exotic elements. Most important were new items of material technology, new sources of energy and materials, alternatives to hunting as a means of livelihood, and a political structure that took decision-making away from the Indians and gave it to federal government bureaucrats in Ottawa. These far-reaching changes in the sub-arctic cultural system were reflected in significant changes in food acquisition and consumption patterns and hence in patterns of morbidity and mortality.

There is no comprehensive study of these cultural changes with respect to food habits and nutrition. In fact, there is no published study of Déné food habits and nutrition at all. Information has to be collected from a variety of sources, largely explorers' accounts, like Hearne (1795), Mackenzie (1801) or Pike (1892); or anthropological works, both book-length and brief, like Birket-Smith (1930), Jenness (1932, 1942), Osgood (1932), Mason (1946), Helm (1961), Helm and Lurie (1961),

Cohen (1962), Oswalt and Vanstone (1963), Vanstone (1963a, 1963b); or specialist books, like that of the missionary Father Morice (n.d.) or the trader Philip Godsell (1938). Hildes et al (1959) mention diet in their medical study of one particular settlement, and Sue (1965) refers to the food given to the young children of one particular group of northern Indians. The only other study of the nutrition of Indian children, a short paper by Dong and Feeney (1968) relates to the Kwakiutl Indians of Alert Bay, British Columbia.

These are the most useful published sources for information on the diet of the Arctic Drainage Déné. However, by far the greatest amount of material used in this report came from unpublished sources: official and unofficial documents, letters, reports and memoranda, dating back almost a hundred years and stored in files in the Public Archives in Ottawa. Some two hundred of these files were searched for data to be used in this report. They are identified at the end of each chapter by the Public Archives call number, either RG10 (Indian Affairs) or RG85 (Northern Administration), followed by the volume number of the box in which the document is stored and the file number in which it is located; e.g.: Memo from E. C. Parker, Inspector of Indian Agencies, to D. C. Scott, Accountant, Department of Indian Affairs, d. 18 May 1917 (RG10, Vol. 3708, File 19502, Pt. 3). Some additional unpublished archival material was found in the Glenbow-Alberta Institute Archives in Calgary and is identified at the end of each chapter by their more straightforward call number.



## 1.6 Notes and references

- (1) Schaefer, O.: Improvement of nutritional status of northern native populations by government assisted programs for commercial harvesting and distribution of native food resources. Intradepartmental memo d. 27 March 1972 (Copy from Dr Schaefer to the author).
- (2) Schaefer, O.: 'Nutrition base and nutritional habits of northern populations.' Preliminary draft of unpublished report (Copy from Dr Schaefer to the author).
- (3) Yukon News, 4 June 1975, p.19.
- (4) Yukon Indian News, 23 February 1977, p.15.
- (5) Report to the Royal Geographical Society re Trip to the Western Arctic, 1928: F. Hunter (Glenbow-Alberta Institute Archives, Ref. D971.2 R.888).
- (6) Unpublished article on the Dogrib by Dr J. D. Leechman (Glenbow-Alberta Institute Archives, Leechman Papers, Ref. A .L483 f.84).
- (7) Report of Chief Factor James Anderson of the Hudson's Bay Company in the Mackenzie River District, Outfits 1851 to 1857 (Glenbow-Alberta Institute Archives, Godsell Papers, Ref. A .G589J f.108).

## Chapter Two

### Ecological factors

#### 2.1 Introduction

The fundamental behaviour in both animal and human populations, as stated in Section 1.3 above, is the acquisition and consumption of food energy. Among human populations one must add to food energy for human consumption the fuel energy that man's mechanical technology uses. The behaviour associated with the acquisition and consumption of energy of whatever kind may be termed ecological adaptation. In primitive self-sufficient hunting and gathering and agricultural societies energy requirements are satisfied through direct exploitation of the environment. As populations become socially and technologically more complex, economic arrangements, systems of exchange involving sharing, gift-giving, markets, wages, taxes, debts and financial institutions, intervene between man and his direct exploitation of the environment.

In the northwest Canadian Sub-Arctic this cultural evolutionary sequence began about three hundred years ago when Russians traded with coastal Indians, and the coastal Indians crossed the mountains to trade in turn with the Yukon Athabascans. Two and a half centuries ago the fur traders were beginning to reach the Mackenzie, and the Déné responded with

large-scale abandonment of their traditional self-sufficient hunting ecology in favour of the new ecology of fur trapping with its complicated economic arrangements, more advanced technology and loss of independence. After the Second World War, with massive intervention by the federal and territorial governments, the already eroded independence of the Déné slumped into a flood of wage employment, welfare payments and social services and was swept away in a torrent of Ottawa and Yellowknife bureaucracy. Hunting, trapping, wage employment and welfare payments, each a new ecological adaptation representing a different way of acquiring and consuming food energy had a direct impact on the dietary habits of the Indians.

## 2.2 Hunting

The wide undulating plains of the northwestern sub-arctic region of Canada lie below a dense cover of black and white spruce, of fir and larch and pine, of aspen and poplar. Numerous shallow lakes break the forest cover, while marshes and muskegs swamp it in many threatening places. Game of all sorts abounds in the dense green coniferous forests: deer, elk, moose, bears and a variety of fur-bearing animals. Herds of caribou roam along the tundra-forest border, and woodland caribou are, or at least used to be, plentiful among the trees. The cold glacial lakes and the clear streams abound in fish. Late in spring each year the sky is filled with birds. Across this land of forests, lakes and marsh the winter lasts long and rules severely. Summers are short, but they are very



warm for the latitude, and there is a wide range in temperature between day-time high and night-time low.

This is the homeland of the Arctic Drainage Déné. These Indians were essentially woodland people. They feared the treeless Arctic and in winter avoided the empty Barren Grounds, though in summer the Yellowknives and Chipewyans commonly followed the caribou there. The real home of the Déné was the timberlands 'where their bark canoes in summer and snowshoes in winter carried them where they willed and their fires never went out for lack of wood' (Jenness 1937:51). The Déné were constantly moving, their wanderings directed by the animals on which they lived.

The seasonal character of the food supply and the habits of the fish and animals greatly affected the daily life of the Indians. They compelled the various bands to move from one fishing or hunting ground to another as soon as the first began to slacken in its yield. These endless migrations evoked adaptations in dwellings and household furniture, and the invention of appliances like tumplines and toboggans to aid in their transport. Then the periodic scarcity of fish and game necessitated methods for preserving the supplies accumulated in seasons of abundance...

No tribes in Canada escaped these seasonal movements in quest of food, although there was considerable variation in the frequency and times of the movements... The Chipewyan of the Mackenzie river followed the caribou season by season, impounding them in the woods when the snow lay deep on the ground, and pursuing them out into the barren grounds at the approach of spring; while the Hare on the lower Mackenzie river, whose country contained few caribou, snared the Arctic hare during the winter months (whence their name), and wandered from one fishing place to another.

(Jenness 1932:46-48)

As Jenness has here intimated, the fish and game resources varied greatly from place to place, from season to season. In those areas where game animals were scarce or at those times of the year when they were not to be found, the lakes and rivers were generally well-stocked with fish. Of the large game animals of the region one of the most important was the caribou, of which by far the largest herds in the Canadian North were found on the great plains between Hudson Bay and the Mackenzie River. In the Yukon they were generally restricted to the arctic coast or the alpine interior. 'The range of the Barren Ground caribou,' writes Pike (1892:45), 'appears to be from the islands in the Arctic Sea to the southern part of Hudson's Bay, while the Mackenzie River is the limit of their western wandering... In the summer time they keep to the true Barren Grounds, but in the autumn, when their feeding grounds are covered with snow, they seek the hanging moss in the woods.' 'Reindeer or Barren Ground caribou...is undoubtedly to the majority of the northern Dénés, east of the Rocky Mountains, what wheat is to the European, rice to the Asiatic...', the staple food (Morice n.d.:124). The Barren Grounds, Morice writes, though they meant 'certain death to the white man' were 'the larder of the Déné huntsman.'

The woodland caribou kept to the forests. They were bigger than the barren ground caribou but never occurred in large herds. The moose were also boreal forest browsers. They supplied excellent meat, and their large size made them, like the caribou, one of the most important game animals of the North. But the extremely good hearing of the moose made

them hard to kill, especially as the Indians had no other method 'but to creep after them, among the trees and bushes, till they get within gunshot' (Hearne 1795:256). In summer the Indians killed the moose in the water while they were crossing rivers or swimming from the mainland to the islands.

The flesh of the moose is very good, though the grain is but coarse, and it is much tougher than any other kind of venison. The nose is most excellent, as is also the tongue, though by no means so fat and delicate as that of the common deer. It is perhaps worth remarking, that the livers of the moose are never sound, not even at any time of the year; and, like the deer, they have no fall...

(Ibid:358)

Other sources of food for the Déné were mountain sheep, mountain goats and hoary marmot (Morice n.d.:127). Musk-oxen and beaver are also mentioned by a number of writers. Buffalo and elk were eaten by the 'forefathers' of the northern Déné but had become 'practically, if not totally, extinct within his patrimonial domains' (Ibid:126). The buffalo was still being eaten in Hearne's (1795:253-254) time:

The flesh of the buffalo is extremely good eating; and so entirely free from any disagreeable smell or taste, that it resembles beef as nearly as possible; the flesh of the cows, when some time gone with calf, is esteemed the finest; and the young calves, cut out of their bellies, are reckoned a great delicacy indeed... The tongue is also very delicate...

Hare or rabbit was 'the game of the poor, of the orphan

and the widow, inasmuch as the use of firearms or even of bows and arrows is by no means necessary to secure it' (Morice n.d.:128). It is interesting, though perhaps coincidental or maybe even apocryphal, that according to Jenness (1932:394) the Hare Indians were despised by their nearest neighbours, the Kutchin, the Inuit and the Yellowknives, 'on account of their timidity.' Woodland caribou, moose and beaver were scarce in their territory, but a few musk-oxen and herds of barren ground caribou roamed the tundra north of Great Bear Lake. The Hare Indians hunted these caribou in April and again in August and the early part of September, 'but they seem to have been less skilful in the chase than other Indians, and throughout the greater part of the year relied on fish, supplemented by hares during the winter months. In seasons when hares were scarce -- every seventh year or thereabouts -- they suffered great hardships, and generally some of them perished from starvation.'

The Kutchin, who had such a low opinion of the Hare, devoted most of the summer to fishing and the winter to hunting caribou, moose and other game, including the lowly hare (Ibid:400).

The Chipewyans were a true 'edge-of-the-woods' people. They followed the movements of the caribou, spearing them in the lakes and rivers of the Barren Grounds in summer, and snaring them in pounds or shooting them down with bows and arrows during the winter when they took to the shelter of the forests. Buffalo, musk-oxen, moose and smaller game tided the Chipewyans over those periods when caribou were lacking



(Ibid:386).

The Slave Indians, unlike the Chipewyans, never ventured out on to the Barren Grounds. They clung to the forests and the river banks, hunting woodland caribou and moose. Both of these were animals that did not wander in herds, so animal drives and pounds were not required. Instead, the Slave Indians ran their quarry down on snowshoes in the spring and snared them with the help of dogs during the summer and winter. Nearly half of their diet consisted of fish, caught in nets of twisted willow bark or with lines of the same material fitted with hooks of wood, bone, antler or occasionally birds' claws (Ibid:389-390).

The Dogrib were neither an edge-of-the-woods people entirely, like the Chipewyans, nor yet a purely woodland people like the Slave. They were not very partial to fish, but when they ate them they did so 'right out of the pots, and...their mouths looked like separators: the food went in and the bones came out one side in a steady stream. If a bone was swallowed, they used to eat a big piece of fish meat to take it down'<sup>(1)</sup>. The Dogribs depended for their main supply of food on the barren ground caribou which they snared in pounds and speared in lakes after the manner of the Chipewyans (Jenness 1932:393).

The animals hunted for food provided more than meat alone. The Indians prized many other tid-bits and delicacies from the bodies of these animals. For example, the back-fat on the caribou, which began to grow in August and which by mid-September had reached a length of a foot or more toward the

tail. As it was sometimes a couple of inches thick and extended right across the back, it was a great prize for the lucky hunter (Pike 1892:51). 'Of the external parts the ribs and brisket rank highest, the haunches being generally reserved for dog food; a roast head is not to be despized, and a well-smoked tongue is beyond all praise.'

What Hearne (1795:316-317) considered the 'most remarkable dish among the Indians in those parts, Northern as well as Southern' was

blood mixed with half digested food which is found in the deer's stomach or paunch, and boiled up with a sufficient quantity of water, to make it of the consistence of pease-pottage. Some fat and scraps of tender flesh are also shred small and boiled with it. To render this dish more palatable, they have a method of mixing the blood with the contents of the stomach in the paunch itself, and hanging it up in the heat and smoke of the fire for several days; which puts the whole mess into a state of fermentation, and gives it such an agreeable acid taste, that were it not for prejudice it might be eaten by those who have the nicest palates.

Morice (n.d.:152) includes this delicacy under the heading of 'Unspeakable Dishes' along with the 'young calves, fawns, beaver, etc. taken from the womb of their dams' which 'are also reckoned most delicate food.' 'Toothsome morsels are also the genital organs' -- what Hearne (1795:318) called the 'parts of generation' -- 'of any eatable animal, male or female. Those of the males are usually very tough; yet the men and boys, who alone enjoy the privilege of eating them,

must not on any account use a cutting tool to facilitate the operation.' The Athabascans were 'also very fond of the womb of the elk, deer, etc., which they devour without washing, or any other preparation than striking out its contents. This is the most disgusting of their dishes, about which the less said the better' (Morice n.d.:152).

Tripes of caribou and other large game were 'fairly well washed, boiled and eaten while more substantial parts of the animal are cooking' (Ibid). 'Another morsel held in high esteem is the udder of a milk-giving doe, which is usually roasted on the spot where the animal is killed' (Pike 1892:51).

The tongues, ears and heart of any animal are particularly prized; the marrow is also a rare tid-bit to them. But it may be said that the choice morsel is in the caribou the hump-like fat between the shoulders. In other game they relish above all the saddle of the deer, the upper lip of the moose, the liver of the marmot, the cutlets of the bear, and the tail of the beaver.

(Morice n.d.:159)

Of fish another part besides the flesh that the Déné also ate was the roe which Father Morice (Ibid:154) includes, rather surprisingly, among his class of 'Other Queer Dishes'. But a contemporary of Mackenzie's reported that the Chipewyans around Lake Athabasca would also eat 'fish guts, gills, eyes, etc., the moment they are taken from the fish -- even in the midst of plenty they will cut off a slice of raw brochet and eat it with as great pleasure as an European would do an oyster' (Jenness 1956:25).

The important point is that the traditional diet of the Déné included not only the flesh of the game animals and fish but many of the internal organs as well. In this way the Pre- and Early Post-Contact Indians derived much more nutritional value in terms of vitamins and minerals than is available from the flesh alone. Price (1939:75) gives an example of this in a description by an Indian from the Pelly Mountains of how,

when the Indian kills a moose he opens it up and at the back of the moose just above the kidney there are what he described as two small balls in the fat. These he said the Indian would take and cut up into as many pieces as there were little and big Indians in the family and each one would eat his piece. They would eat also the walls of the second stomach. By eating these parts of the animal the Indians would keep free from scurvy, which is due to the lack of vitamin C. The Indians were getting vitamin C from the adrenal glands and organs. Modern science has very recently discovered that the adrenal glands are the richest source of vitamin C in all animal or plant tissues.

This use of internal organs to obtain a wider range of nutrients is a point frequently stressed by Dr Schaefer and others interested in improving the diet of the contemporary Déné who have adopted the habits of southern Canadians in this respect, as in many others, and tend to discard many of the food-rich parts of game animals. Usher (1976:108) notes that while there may be declining consumption of animal heads, internal organs and fat, 'it cannot be assumed that the trend is a permanent one.'



Other nutrients of low value in animal food were augmented by plants. 'Vegetarian resources, in the North mainly herbs, roots and berries collected in summer and fall but often dried or otherwise preserved for year-round use, were essential sources of minerals and vitamins.'<sup>(2)</sup> Berries in fresh, dried and frozen form -- cranberries, raspberries, blueberries, crowberries and many others -- were probably, besides meat and fish, the most important sources of vitamin C and minerals for northern Indians, though Osgood (1932:43) considered that they did 'not form an extremely important object of diet.' Various plants and leaves were eaten, sourdock being one of the richest plant sources of vitamin C<sup>(3)</sup>, and Mackenzie (1801:cxxvii) records that rock-moss, when boiled in water, 'dissolves into a clammy, glutinous, substance, that affords a very sufficient nourishment.' Hearne (1795: 317-318) notes of the Chipewyans that in winter 'when the deer feed on fine white moss, the contents of the stomach is [sic] so much esteemed by them, that I have often seen them sit round a deer where it was killed, and eat it warm out of the paunch. In summer, the deer feed more coarsely, and therefore this dish, if it deserve that appellation, is then not so much in favour.'

The Indians also used the roots and leaves of some plants. For example, among the Dogribs, according to a pioneer who observed them in 1897-98<sup>(1)</sup>,

The roots of high-bush red berries boiled made good tea, and could be used for medicine too... The first boiling should be thrown

away, however. A little white berry which grows on low bushes in muskeg was known as "Hudson's Bay tea". Home-brewed tea was improved when flavoured with a few leaves of wild mint which had been dried. There was no coffee used by trail parties in those days.

And so, as Mackenzie (1801:cxxvii) observed, 'notwithstanding the barren state of their country, with proper care and economy, these people might live in great comfort, for the lakes abound with fish, and the hills are covered with deer.' Nevertheless they did 'suffer severely at certain seasons and particularly in the dead of winter, when they are under the necessity of retiring to their scanty stunted woods.' All the 'alimentary resources' of the Déné, as Morice (n.d.: 131) quaintly puts it, were 'more or less aleatory and uncertain. Abundant in the extreme for a few days, they may afterwards fail for months, yea, almost for years.' The RCMP in 1924 reported that the Indians in the Yukon 'had lots of experience of being on short rations, indeed almost starving some years...'(4).

Almost all early accounts of the Indians refer to periods of hunger and recount harrowing stories of famine and death by starvation. Back (1836:193, 207, 209) and Hooper (1853: 304, 329, 330) are only two examples. At the times alluded to in these published accounts the northern Déné in particular were only marginally involved in trapping (See Section 2.3 below) and were living under a traditional cultural system affected only technologically by early contact with the fur

traders. They were thus to all intents and purposes still living as hunters and subject to the insecurity of food supply that went with hunting.

In most accounts, starvation is almost always associated with the improvidence of the people. 'Starvation will always be one of the features of a Northern Indian's life, owing to his own improvidence,' writes Pike (1892:47); 'his instinct is to camp close on the tracks of the caribou and move as they move; a permanent house and a winter's supply of meat are an abomination to him.' Pike's own companions 'had all the improvidence of the Indian nature, and hated the idea of keeping anything for hard times.' Tucker (1851:6) claims that 'the great uncertainty' in the Indians' supplies 'arises very much from their deeply-rooted habits of improvidence...'. Osgood (1932:37) reports 'few examples of foresight' with no plentiful supply of fish being laid up for the poor seasons as among the people of the Pacific coast. 'Even the Eskimos to the North lived in comparative security.'

When food was plentiful gormandizing took place. 'The amount of food an Indian can eat at a meal is quite unbelievable to one who has not witnessed such a performance, and gives rise to stories so exaggerated as to be amusing' (Ibid). 'All the Dénés, in fact, are great gormandizers. They are especially fond of solid fat, and will drink grease to surfeit. Though they generally appreciate quantity at the expense of quality, they are not without realizing what is best for gastronomical purposes' (Morice n.d.:159).

But when food was scarce death by starvation was often avoided through resort to cannibalism. Numerous instances of cannibalism have been noted by early writers, but Osgood (1932:33) emphasizes the fact that these occurred 'only under the stress of starvation as severe as that which is known to have produced the same result among civilized people.'

According to Morice (n.d.:133) the Slaves, Dogribs and Hares had a 'specially bad reputation' for cannibalism. A statement by John McClean, a Hudson's Bay Company employee, to Cornelius Osgood (1932:37) agrees with Morice's in that cannibalism was 'more frequently known among the Slaves and Rabbitskins [Hares] than any other of the kindred tribes.'

Osgood notes that this may be accepted as true since these people had the least dependable food supply. One of the most grizzly references to the practice of cannibalism was Hooper's (1853:303) mention of one man's having eaten eleven or thirteen people, including his own parents, one of his wives and the children of two wives.

Yet for all the talk of improvidence, the Déné did take steps to preserve meat and fish. They did this mainly by drying and smoking. The southern Indians, Hearne (1795:297) writes, dried meat by exposing it to the heat of a large fire 'which soon exhausts all the fine juices from it, and when sufficiently dry to prevent putrefaction, is no more to be compared with that dried by the Northern Indians in the sun, or by the heat of a very slow fire, than meat that has been boiled down for the sake of the soup, is to that which is only sufficiently boiled for eating.' Birket-Smith (1930:32)



recognizes this same difference when he writes that the Chipewyans, unlike the Cree, dry their meat over a slow fire which makes it more juicy. He considers drying to have been a pre-Columbian method of preservation in the boreal woodlands. Mackenzie (1801:57) refers to the sun-drying of fish on 'stumps of trees...fixed in the ground.' Osgood (1932:41) describes the practice among the Great Bear Lake Indians of pounding the dried meat into a 'fibrous powder' which the Indians dipped in melted grease and ate. This powdered dried meat also formed the basis of pemmican. Morice (n.d.:160) claims that the 'superior kind' of pemmican came from mixing the pounded dried meat with marrow and dried service berries. According to Morice, it was the early traders who added fat to the ground dried meat. Birket-Smith (1930:31-32) describes pemmican as the Chipewyans made it, by pulverizing the dried meat with a hammer stone and boiling it with caribou fat. The 'cooked mass' was then poured into caribou guts and frozen. Some groups used equal parts of meat and fat, others one part fat to two parts meat, but whatever the recipe Birket-Smith considers pemmican to be characteristic of eastern North America and believes therefore that the Chipewyans borrowed its preparation from the Cree. Driver (1970:57, 93) describes the making of pemmican, including berries, marrow and fat as ingredients, as a Plains Indian practice.

Altogether the diet of the Pre-Contact northern Indian was rich in protein and low in carbohydrate. 'There is general agreement,' writes Schaefer<sup>(2)</sup>, 'that the aboriginal

Indians' diet was also very low in fat as their main prey, caribou, moose and other deer have very lean meat and very limited fat stores.' Furthermore the fat derived from traditional sources was much more unsaturated than the domestic meats of southern Canadians, seven times more unsaturated, for example, in the case of caribou compared with beef. It appears that the Indians may have been aware of a need to increase the low fat intake in their diet. An old pioneer, Harry Garbitt of Moberley, B. C., who was in the Canadian Northwest in 1897-98, said in an interview that grease was necessary in the Dogribs' diet to prevent scurvy, for 'if a man could keep fat in the woods he did not seem to get scurvy'.<sup>(1)</sup> For this reason the Indians cached moose in the summer when the animals were fat. According to Mr Garbitt 'bear grease was best, however, because it did not harden and could be used in winter to mix with dried berries. The berries would have been dried in summer and hung in bags until used.'

### 2.3 Trapping

In spite of the apparently confident statements made in the foregoing section, one must remember, as MacNeish (1956: 131) points out, that of 'the truly aboriginal condition of the northeastern Athabascans, of course, there is no direct knowledge.'

In even the earliest reports it is evident that the contact situation has already

wrought changes in the aboriginal way of life. Indeed, if Hearne is correct, a smallpox epidemic circa 1781 so destroyed the population (90 per cent of the Chipewyans in Hearne's estimate) that northeastern Athabaskan society must have been shaken to its foundations. Another indirect effect of the European world upon Déné society that preceded the first explorers was the stimulation given by the gun-bearing Crees to raid and plunder the defenceless Mackenzie River Déné for their furs. Whole populations fled their home territories in consequence. But of the particular movements we have little detail.

(Ibid:131-132)

Contact between the Indians of Northwestern Canada and the Europeans goes back to the first quarter of the eighteenth century<sup>(5)</sup>. As a result of the second Hundred Years' War in Europe involving Britain, France and other powers, France eventually lost her empire in North America. The Treaty of Utrecht in 1713, which ended the War of the Spanish Succession, had already given Britain possession of Newfoundland, Acadia and the Hudson Bay drainage. A British agent in Canada called James Knight took over York Fort in accordance with terms agreed at Utrecht and accepted the twin tasks of 'furthering discovery and of increasing trade' (Rich 1967:97). His first move was to try to bring an end to hostilities between the Crees and the Chipewyans. To this end he sent one of his men, William Stewart, on a journey across the Barren Grounds to the north and west of the Nelson River. Stewart probably travelled some 800 miles from York Factory and reached the country east of the Slave River and south of Great Slave Lake. This

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'magnificent feat of travel' brought the English into contact with the Indians of the Great Slave Lake area when the French were still reaching out from Montreal toward the Pigeon River and the lands to the south of Lake Winnipeg. The English began to hear accounts of a 'great fur-bearing lake and river which lay beyond the headwaters of the Churchill River. This was Athabasca Lake and River...' (Ibid). In helping with the exploration and opening up of this region the Crees secured for themselves the role of middlemen. Then to stimulate this developing trade in the area Knight founded a post on the Churchill River in 1717 -- an earlier one there had been burned down in 1689-90 -- 'and Indians from the north came in to trade in the first year' (Ibid:98). The imposing fortifications that the English built at Churchill reflected the determination of the English 'to maintain their hold on the Churchill River and on the access to the prairies and to the northern wastes and waters which the post there commanded' (Ibid:101). But the French were, more 'forthright, aggressive and successful.' While the British tried to attract the Indians to Churchill, the French went direct to the Indians. Thus for the Indians the adventurous French traders became 'the Shop that they can market cheapest at' and therefore the French derived the benefit of being 'in the place with the Indians where they Catch their Furs' and the Indians were spared the trouble of a long journey (Ibid:101-102).

As mobility and the interdependence of the fur-trading posts with supply depots and country provisions became accepted, the



last quarter of the eighteenth century saw a definite change of policy on the part of the English company. All the northern territories were knit together in one comprehensive plan for penetrating, provisioning, and fur trading. The heart of the system lay around Lake Winnipeg. From there ran the routes to Lake Superior and the South by way of Grande Portage; to the Petit Nord and the Bottom of the Bay; and to the Grand North and the newly opened territories to the Northwest. The area was also the centre of the provision-country, with wild rice to supplement the buffalo and deer of the prairies. From Abitibi to Athabasca the northern territories were becoming accepted as a unified problem... The Company was coming to terms with the northern environment on the fringes of which it had traded for a century.

(Ibid:170)

Churchill had been founded by James Knight especially in order to establish contact with the Indians from Athabasca. But the journey for the Indians was long and arduous and there were many rival traders along the route. The traders from Churchill would therefore have to go to meet the Indians. The first major advances in this direction were made by Peter Pond who in 1778 led an expedition into Athabasca country and revealed 'the fabulous wealth' that might be got from there 'once a supply system could be organized to support regular journeys into that territory' (Ibid:171). He returned to Athabasca in 1785 and in the following year made his way on to Great Slave Lake. There he set up Fort Resolution. He then ventured even further north, to the mouth of the Yellowknife River, where Fort Providence was later established. Thus the English pushed the fur trade up into the territory of

the Chipewyan and Slave Indians who in normal times would have brought their furs down to York and Churchill.

Fierce rivalry developed in Athabasca between various groups of traders representing the interests of the Hudson's Bay Company, the North West Company and others from Montreal. To reduce this rivalry the North West Company and the Montreal concerns amalgamated. 'So from 1787 onwards the North West Company of Montreal controlled virtually the whole fur-trading capacity of Canada, organized to exploit the Northwest by using the route by the Grand Portage and the Saskatchewan. Peter Pond was included, as was young Alexander Mackenzie... already experienced as an Indian trader on the English River, at the back of Churchill' (Ibid:174). Mackenzie spent the winter of 1787-88 in company with Peter Pond at Pond's 'Old Establishment' on Lake Athabasca and was eager to maintain Athabasca 'both for the sake of its furs and as a base from which an expedition to the Arctic... might be launched' (Ibid:178-179). He made that expedition in 1789, having reorganized the Athabasca fur trade under the control of a new establishment at Fort Chipewyan on Lake Athabasca and handed the business over to his cousin Roderick Mackenzie. He reached the mouth of the Mackenzie River on 10 July 1789.

In the Yukon territory the Indians did not come into direct contact with the first traders who affected their way of life. The traders in this case were Russians who were trading with the coastal Indians at the end of the seventeenth century. These coastal Indians then crossed the mountains and traded with the native peoples of the Yukon. As the

Yukon Native Brotherhood (1973:7) puts it: 'We started changing some of our values. We became commercial trappers. We traded for items which became personal property, instead of community property.' Trade between the southern Yukon and the Pacific Northwest increased during the middle years of the nineteenth century following the near extinction of the fur seal and the switch of trading interest to the inland furbearers, primarily fox and marten (Tanner 1966:6). Then came the English traders from the Mackenzie district to the east. In the 1830s Robert Campbell of the Hudson's Bay Company was establishing posts in the upper Stikine and Liard River valleys. The Indians welcomed this direct trade because they received much better prices than they did from coastal middlemen. This in effect ended the trade between the Yukon Indians and those on the coast (Yukon Native Brotherhood 1973:8).

The advent of the fur traders in the seventeenth and eighteenth centuries, writes Jenness (1942:375), destroyed the peace of the Mackenzie without relieving the prevailing poverty. The two tribes that bordered the fur posts on Hudson Bay, the Cree and the Chipewyans, tried to monopolize for themselves all the benefits of this trade. The Chipewyans, equipped with guns, reduced their neighbours, the Yellowknives and Dogribs, to a state of serfdom. The Cree, as already mentioned (Section 1.4), pushed westward, drove out the Indians who inhabited the upper waters of the Mackenzie River and took over the territory for themselves.

By this time the fierce rivalry between the Hudson's Bay

Company and the North West Company had ended. In 1821 the rivals were amalgamated and the Hudson's Bay Company held a virtual monopoly of the fur trade throughout what was then Rupert's Land. Until 1870 the Company offered little incentive to the more remote Indian groups to become anything but spare-time participants in the fur trade, and through the nineteenth century the northern Déné adopted few of the trade goods that were so attractive to more southern Indians like the Chipewyans and the Crees. 'Specifically we find that European foods such as tea, tobacco, sugar, flour and lard, although consumed, remained a secondary source of nourishment' (Asch 1976:8).

But with the sale of Rupert's Land in 1870 the Hudson's Bay Company lost its monopoly position in most of its former domain and with it lost an assured supply of furs at prices well below world market levels. One region, however, in which this was not the case was the Mackenzie River District (Ibid: 9). Here, as Asch argues with regard to the Slave Indians, the Company concentrated its efforts to increase productivity in order to offset losses elsewhere. It is an attractive thesis. But there is evidence that the efforts by the Hudson's Bay Company to improve productivity, which Asch dates to the 1870s among the Slaves, began among other northern tribes in the 1850s. The Chief Factor for the Hudson's Bay Company in the Mackenzie District reported that the Indians around Fort Rae, Dogribs and a few Yellowknives, 'have been so long neglected that they are very indifferent fur-hunters, but they have now begun to exert themselves and will in a few years,



if well managed, give very large returns, as their lands are unexhausted and very rich in Martins[sic].<sup>(6)</sup> This suggests that the traders were advancing into new areas of exploitation as old areas became overtrapped. Perhaps their reason for intensifying the fur trade was not wholly the loss of the Hudson's Bay Company monopoly, as Asch argues, but also, if not solely, the falling returns from longer established trapping areas to the south.

But the Indians on the 'unexhausted' lands had to be enticed into devoting more time to trapping. Around Fort Simpson, for example, the Chief Factor reported that to 'encourage the Indians in that quarter to hunt, I supplied an outfit of trading goods to the post, which has had the effect of making the Indians exert themselves; they are now as good [fur-] hunters as any in the District'.<sup>(6)</sup>

Asch (1976:10) records the same strategy with regard to the Slave Indians. The Hudson's Bay Company intensified its attempt to outfit the Indians so that they could spend more time working at fur collection.

One most important aspect of this activity was the intensification of efforts at food provisioning. Although European foods were sometimes used for this purpose, most of the provisioning was done by taking surpluses drawn from more northerly Indian groups. For example, it appears that the main purpose of the establishment of a trading post at Wrigley in 1885 was to obtain bush resources which could be used to provision Indians at Fort Simpson and further south.

Asch shows from Hudson's Bay Company records that between

1855 and 1870 the amount of flour supplied to Fort Simpson for district-wide use almost doubled from 3,600 to 7,000 pounds while tea supplies increased from 307 to 1,800 pounds. This argues for a much earlier date for the beginning of the Hudson's Bay Company's intensification strategy than Asch himself allows. 'No doubt much of this increase went to supplement native subsistence. As well, by 1890-1, even at Fort Wrigley, which was founded primarily as a provisioning outpost, gratuities to Indians included significant amounts of tea, tobacco, flour and sugar...' (Ibid). Nonetheless, Asch argues, bush resources were still central to the diet of the Slave Indians and would remain so at least until the 1950s.

The inference from Asch's paper is that dietary and other cultural changes came slowly to the Arctic Drainage Déné. Certain imported foods like tea, sugar, flour and lard became more important in the native diet but not to the exclusion of traditional 'bush resources'. Honigmann (1946:47) agrees. Although significant changes were introduced into the Indian cultural system by the shift in ecological activity from purely hunting to one of hunting and trapping 'the adjustments demanded of the society were not abrupt and appear to have been accompanied by little of the catastrophic disorganization which followed in the wake of the acculturation process elsewhere.' The explanation for this, Honigmann goes on, in words that Asch (1976:10-11) echoes thirty years later, may lie in the fact that despite the shift from a subsistence to a trading ecology, the basic ecological patterns themselves remained. 'Now instead of hunting[s] being directed primarily toward

the food quest it gradually became a seasonal occupation ultimately directed toward obtaining cultural necessities via the channel of trade. The adaptation of the culture to the bush remains; the techniques of forest travel and forest living retain their functional importance.'

Another factor to be considered is that in the early nineteenth century many Indians earned trade goods not as trappers for the trading companies but as hunters. In the 1850s in the middle reaches of the Mackenzie that were not yet fully involved in trapping, the Hudson's Bay Company's Chief Factor reported<sup>(6)</sup>,

The attention of these Indians was chiefly directed to the hunting of provisions for the general service of the District; since then we have been able to direct more of their attention to fur-hunting, and the last three years show a very considerable increase in the fur returns, which I trust will yearly augment. The Indians in general are very poor fur hunters, but will improve.

The fact that Indians could be taken off provisioning and encouraged to spend more time trapping for furs suggests that a larger amount of food was being supplied from the trading post. This is supported by the statistics quoted above from Asch, but it argues for a more substantial change in diet in the 1850s than Asch and others have allowed. This is not to say that the Indians adopted a fully white diet, but only that they appear to have increased their intake of the common white staples to a greater degree than has been suggested in the literature. Those who, like Kidd (1957:15)

who claimed in the Hudson's Bay Company publication The Beaver that the Indian diet 'was not noticeably affected by trading', may be understating the case. Even Mason (1946:15) may be guilty of this when, referring to the year 1913, he states that the 'method of subsistence has probably differed in no important feature since the time before white invasion. Small amounts of flour, raisins and other commodities are issued at posts in return for fur, but these are generally regarded as luxuries and quickly consumed, leaving the native again dependent on his hunt. Tea and tobacco alone are made to last until the return to the fort.'

The situation appears to have been that the Indians, having been provided with a more efficient technology, were able to increase their take of country food considerably but that, at the same time, they were obtaining and consuming larger quantities of flour, lard, sugar and tea as supplements to their natural diet of meat and fish. It would appear that because of other factors to be discussed later -- the introduction of relief issues and game regulations in particular -- the proportion of these imported staples increased considerably during the second quarter of the twentieth century.

One reason for the slower pace of dietary change before then was noted by Stefansson (1913:33) during a trip down the Mackenzie River in 1908: 'The importation of foodstuffs from the outside... has not grown easy as yet.' And it was also expensive<sup>(7)</sup>. For these reasons country food at this time still dominated native diets.



In general the trading stations are divided into "fish posts" and "meat posts." Fort Smith is a typical meat post, for caribou are found in the neighbourhood and moose also; and the Indians not only get meat enough for themselves and for the white men, but the fur traders even find the abundance of meat supply a handicap in their business, -- for the Indian who has plenty to eat does not trap so energetically as do others who pay in fur for some of their food.

(Stefansson 1913:34)

If Stefansson is right then the efforts to involve the Déné more fully in the fur trade had not yet wholly succeeded. As a result, in the first decade of the twentieth century, and even at a settlement like Fort Smith, the Indians were still largely living off the land, hunting for themselves and for the trader too and trapping over the winter season for the furs they needed to trade for the more popular common staples, like tea, sugar, flour and lard, and for other necessities, like guns, ammunition, clothing and traps.

Another reason for the initially slow pace of dietary change was the long-established food preferences of the Indian. As the RCMP reported from the Yukon in 1929<sup>(8)</sup>,

Although there are plenty of stores in this district, handling what the Indians call "White Man's Grub", the Indians have got to have meat, which is and has always been his [sic] essential food. The Indian does not buy much canned vegetables but obtains his vegetable through eating the moss that lines the stomach of the killed caribou.

It takes time to change deeply ingrained habits like these. Nevertheless, changes were beginning. As early as 1908 in the

Mackenzie valley Stefansson observed what may be regarded as a sign of things to come:

An Indian woman at Smith Landing, while we were there, traded twenty suckers, which was food enough for a week, for one pound of tinned salmon, which did not make even a meal for her, and this at a time when she had been on short rations for several days on account of the want of fish, and when the twenty fish were all she had caught. Chocolate, imported English jams and marmalade, candies and ribbons are the staple wares of these posts nowadays. It must be said that it was a part of the generally wise policy of the Hudson's Bay Company not to encourage among the Indians the development of these expensive tastes which it is so difficult for them to satisfy, but of late years the Company has had to follow where other traders have led them and now, instead of taking into the country what they consider good for the Indian, they are forced to take in anything that the Indian will buy<sup>(9)</sup>.

(Stefansson 1913:26)

The changes portended here and, in spite of what Stefansson says, envisaged in Hudson's Bay Company policy since the 1850s at least, worked themselves out in the long term. As Helm and Damas (1963:19) point out, the long trend over the last hundred years or so has been to abandon subsistence activities in order to procure more furs for the money and market economy. Trapping began to encroach upon, and then to swamp, hunting, as the Déné were bribed away from a self-sufficient ecology by the blandishments of the trading companies. The greater involvement in the trapping ecology was not without its social disadvantages. The disastrous flu epidemic of 1928 and the economic uncertainty of 1929

shook the fur trade in the Canadian Northwest. But it rallied in 1930. A government report of that year outlined the optimistic situation going into the new decade<sup>(10)</sup>,

While the general downward trend of the fur market throughout many countries has somewhat lessened prices, and the curtailment of debt by the larger trading companies has also brought about certain hardships there is a brighter side to the situation. Briefly it is this: there is a plentiful supply of certain foods throughout the whole country, a condition which did not exist two years ago. There is also a plentiful supply of moose and caribou, the rivers and lakes are well stocked with many species of edible fish and lastly and the most important of all is the decided increase in practically all fur-bearers, the very bread of the country. There should, therefore, be no reason why any resident of the North West Territories whether he be white or Indian should in the near future, at any rate, become destitute.

It shows how far the ecological adaptation of the Déné had shifted towards the trapping and trading of furs at this time that the abundance of fur-bearers should be considered so much more important than the abundance of caribou and moose.

The ecological and economic situation of the Déné did improve substantially in the 1930s and many Indians enjoyed the fruits of their prosperity (Balikci and Cohen 1963:39). But the Second World War and its aftermath changed all that. In 1938, even before the war had officially begun, a trader more philanthropic than most attempted to alert the government's attention to what he saw as a worsening predicament for the Indians<sup>(11)</sup>,

summer of 1943 traders managed to bring in several crates of oranges to Fort Nelson. This fruit found great favour, especially among the men and boys. Boys occasionally bought crackers, such as the 'Ritz' brand, and tinned sardines and ate them along the road. White bread was a great favourite when it could be obtained, as also was pie.

When bread was not available from traders native bannock formed a regular part of each Indian meal. Bannock is a word of Gaelic origin meaning 'home-made bread, usually unleavened, flat and round' (14). Rather like a thick pancake, bannock became a staple food for thousands of Canadians, native and white, especially in the northern regions. While its composition varied, the main ingredients were flour, water and salt with whatever lard or oil was available and baking powder when possible. Country foods fluctuated and varied with seasons, writes Macfie (1956:23), but all year round there was bannock. 'Making bannock has become an essential craft which... is now taught early to the children.'

The nutritional problem of many Indians came from too great a reliance on bannock, like those around Fort Resolution, for example, whose diet in the summer was 'composed of fish and bannock' and therefore 'not complete' (15). The modern Indian has 'found it easier to cook bannock than to dry caribou and lives on a diet that is half Indian and half white but containing only the less essential and most easily prepared components of each. Therefore he is undernourished' (12). The economic status of the modern Indian could be determined 'by the quantities of lard, baking powder and flour purchased



natives (Indians and Eskimos) in the North-west Territories. It also appears that this problem bears a direct relationship to their food supply. It would seem that disabilities increase with the proportion of so called "white man's food" to the native food and that the Indians are inclined to adopt the new diet more than the Eskimos...

REF  
In both cases the question arises as to whether nutritional improvement in the food secured at trading posts, can be achieved, so as to minimize the danger of dependence on such food. This question requires further investigation, but it may be stated as a premise that under existing food habits, economic status, and cooking facilities, improvement in the trading post foods will give only limited results, confined to certain nutritional deficiencies. The broad problem of actually improving the whole nutritional status, involves many factors including (a) economic status, (b) actively encouraging native foods and habits and how they are used, and (c) improving foods at trading posts [Emphasis in original].

An exactly contemporaneous study of the Fort Nelson Slave (Honigsmann 1946) showed that meat obtained from hunting still formed 'an important part' of the diet of these more southerly Indians, along with foods from southern Canada purchased from the traders. The main trouble came in the summer when meat was apt to be scarce. Most people overcame this problem by buying canned meats such as ham and frankfurters and, in larger quantities, smoked meats like bacon and pork butts (Ibid: 107). Of those southern Canadian foods that had come to occupy 'a firm position in the Indians' diet' the most important were eggs -- mostly imported over the Alcan highway or by boat -- jam, bread, rice, dried fruit, coffee, tea, powdered whole milk, sugar, butter and lard. Once or twice during the



summer of 1943 traders managed to bring in several crates of oranges to Fort Nelson. This fruit found great favour, especially among the men and boys. Boys occasionally bought crackers, such as the 'Ritz' brand, and tinned sardines and ate them along the road. White bread was a great favourite when it could be obtained, as also was pie.

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in the different settlements' (Ibid). In other words, the poorer the Indians, the more dependent they were on bannock. Lock and Pett<sup>(14)</sup> refer to the interrelationship of economics and nutrition. The basic question of the northern economy, they say, has not been clearly dealt with -- namely, loosening the ties to fur. 'In any case the nutritional need to return to more native living or to develop an economy and a trading post that will provide foods for health has not developed very far.'

As in many other reports and studies Honigmann (1946:108) found that among the Slave Indians of the Fort Nelson area bread or bannock was generally eaten with jam or butter after the main dish was finished. Bannock quickly freezes in cold temperatures so in winter the Indians always consumed it at one sitting. This tended to lead to overeating.

Honigmann's study of the Fort Nelson Slave gives valuable information on Déné foodways in the early 1940s. For example, a month's basic rations taken into the bush in the fall, supposedly to serve a man, his wife and four dogs for about thirty days, was made up of the following:

50	lbs	flour
6	"	tinned butter
4	"	tinned jam
6	"	lard
20	"	sugar
6	"	powdered whole milk
5	"	macaroni
2½	"	dried fruit
150	"	cornmeal (5 lbs are used nightly as dog feed for four dogs)
30	"	tallow (1 lb is used nightly for four dogs)
1	"	tea
7	"	bacon
12	"	tinned pork and beans

5 lbs dried beans  
5 " rice

When people were living in the village during the summer months they commonly ate three meals a day though there were no standard hours for eating. Between meals any individual, including a child, might help himself to a cup of milk; coffee, if prepared; bread or bannock with jam; or a strip of dried meat (Ibid:109). When trapping in the bush in winter, however, the mid-day meal was seldom eaten, though tea might be brewed several times. Breakfast at dawn consisted of fried or roast meat, and several cups of coffee with sugar. For the evening meal the Indians boiled meat and prepared bannock. They also made tea or coffee in the evening, together with some such dessert as a dish of rice cooked with raisins (Ibid: 109-110).

Some actual meals that Honigmann noted in the summer of 1943 were:

Breakfast

- (1) Oatmeal, dried moose meat, tea with sugar, and bannock with butter.
- (2) Eggs and bacon, bannock with butter, coffee with milk and sugar.

Mid-day meal

- (1) Hard-boiled eggs, frankfurters fried in lard, bannock with butter, tea with sugar, and cooked prunes.
- (2) Boiled bear meat, tea with sugar.

Evening meal

- (1) Rabbit cut up and stewed with rice, (16) with flour added to thicken, bannock with butter, canned blueberries, coffee.
- (2) Canned meat fried in lard, hard-boiled eggs, oatmeal, tea with sugar, bannock with butter.

Meat was generally regarded as the staple food and as the most important article of the diet. Next to meat, native sentiment appeared to be most closely attached to bannock or bread. Tea and potatoes were also popular. The Slave Indians occasionally ate other vegetables but did not show 'any strong attachment' to them.

Usher (1973:2) feels that many people in the Delta and the Western Arctic did well out of the fur trade, or at least much better than most people in other parts of the North. There is no indication if he means just the Inuit or if he is thinking of the Indians as well in his general reference to the Western Arctic. Many Indians may indeed have done well out of the fur trade and many continue to earn at least part, if not all, of their living from trapping. But there are many who believe that the fur trade put an end to what was romantic in their perception of the Indian, that it destroyed the 'Noble Savage' ideal they cherished<sup>(12)</sup>,

It is difficult to imagine that these poverty-stricken and disease-ridden people were at one time part of a hardy and self-sufficient nation. An early trader at Fort Rae, Mr. George Buffam, told me that forty years ago it was a beautiful sight when the Indians paddled down to the post following the spring hunt. They then were a stalwart people, healthy, dressed in skin clothing and travelling in birch bark canoes. They lived in tepees which, with an open fire in the centre and a hole in the roof for ventilation, were far more sanitary than the modern tent with its tin stove. The tepee was ideal for the drying of fish and caribou, now an almost lost art.

It is true that the condition of those who lived by trapping was often deplorable. For example, the Welfare Teacher at Lac la Martre reported in 1957<sup>(17)</sup>,

The health of these people is amazing in view of the fact that they live in a state of semi-starvation most of the time and such filth all of the time...

The sole means of support for these natives is their fur haul. Prices this year did not surpass \$5.00 for large marten pelts, 50¢ for rats. Furs were on the whole inferior. Consequently, very little money came into the settlement this year. Other sources of income were Family Allowances and pension cheques. These do not go far in the purchase of such necessities as flour, baking powder, lard, clothing, tobacco, gas, shells, etc.

Similarly the Community Teacher at Jean Marie River complained that 'dietary habits' among the Indians there were 'very unstable',<sup>(18)</sup>. 'Two very large families in the community are practically living at the subsistence levels due to the decline of the fur trade.' The diet of the people consisted mainly of bannock, dried fish and dried moose and bear meat. Vegetables and milk were a rarity.

To compound the problem of poor returns on fur and the poverty of those who had only fur and public assistance to rely on, a number of Indians appear to have allowed themselves to sink into a kind of defeatist apathy. The Welfare Principal at Fort Resolution, for example, reported in December 1956 that 'as usual' there was a shortage of fish in the settlement<sup>(19)</sup>. 'There are plenty out in the lake but only a few will go out



for them. This always starts a vicious circle. The dogs starve and then of course they can't fish or hunt. The adjustment is of course to make them look ahead and provide for future needs. The old spectre of traditional Indian improvidence was returning to haunt the hapless modern descendents<sup>(20)</sup>. The diet at Fort Resolution was 'largely bannock and fish'<sup>(21)</sup>. The same apathy that appears in the reports from Fort Resolution shows through too in reports from other places in the Mackenzie district. At Fort Good Hope, for example, the Welfare Teacher reported that food was adequate where camps were located near good fishing and hunting grounds, but that there was 'near starvation in some cases due to lack of effort'<sup>(22)</sup>. Another example was Snare Lake. Here the people had enough caribou on hand for the few weeks to Christmas 1965 'but then didn't know how they would make out'<sup>(23)</sup>.

They appeared interested in the caribou to the south, but there were no strong indications that they were going to get any. I found that there were only four men with nets in the lake at present. One man had made a good catch in the fall before freeze-up. It is difficult to know what to predict for the future of the people at Snare Lake. There are only four men out trapping from the main camp and with the three men who have gone to Rae [to purchase basic staples], this would mean approximately ten trappers could be active. For twenty seven families this seems quite a number to try and get by, as the only other income in the settlement will be for the few old age pensioners and the six welfare recipients. I doubt if it would be worth while a trader making a visit to the settlement except for every two months.

The trader will be going in shortly after the first of December. At Xmas it is expected that those who have a catch of fur will make the trip to Rae to dispose of the fur and take back some staple items. Indications are that the older people will not be leaving Snare Lake. This is partly due to the lack of dogs and the lack of sleighs. It is possible that if there is wage employment in the Rae Area after Xmas that some of these men may come out and stay out and leave their families in Snare Lake.

This report, quoted at some length, illustrates the instability, the insecurity, the uncertainty of trapping camp life in an area where the financial return on furs was low, the catch unreliable and the prospects for supplementary wage employment doubtful. Poverty results, and poverty mated to little hope of release breeds apathy.

With regard to nutrition under these circumstances the people depended heavily on game from hunting, so long as they were sufficiently motivated, warmly clothed and adequately armed to go hunting. Where these conditions applied, the Indians combined hunting with their trapping trips and continued to live very much off the land, a point brought out strongly even as late as the Berger Inquiry. Judge Berger (1977:105) found, for example, that at Colville Lake the people still relied 'heavily' on caribou, moose, hare, waterfowl and fish for human and dog food. Their diet consisted 'primarily of country food.' At Old Crow in the Yukon 'a very large proportion of the total food consumed... came from the land.' Caribou was the major food resource, with salmon important in the summer and fall.

Old Crow twenty years before Berger was described as a healthy community, and nutrition played an important part in that (Hildes et al 1959). Caribou and some moose provided most of the meat, though the supply was considered somewhat precarious as the migratory routes of the animals tended to fluctuate. But there was no evidence of any specific deficiencies of vitamins and minerals, and obesity was rare. However, none of the population lived on a pure animal diet. This, as elsewhere in the Northwest Territories, was supplemented by the purchase of cereals, coarse and refined carbohydrates, dried and sometimes fresh fruit and vegetables, canned goods and dried milk. After a 'small-scale dietary survey' Hildes and his co-workers (1959:839-840) noted that animal protein in the form of fresh or dried meat or fish was usually eaten twice and often three times a day; that cereal in the form of bannock, rice, pancakes or bread formed part of almost every meal, often together with refined carbohydrate in the form of syrup or jam; and that fruit, either dried, fresh or canned, was used frequently but vegetables only occasionally.

Therefore, although meat is an important item of diet even in the poor families, the well-to-do families also take a considerable proportion of their total calories as cereals or refined carbohydrates. The proportion of calories derived from fat is difficult to assess. Total caloric intake is not in excess of requirements, for no-one examined was really obese. The extensive use of milk, all of which is imported, probably results from health education in the school and by the resident nurse.

## 2.4 Wage employment

In the 1930s, as mentioned in the previous section, fur prices rose and more and more Indians were attracted to the traplines and more and more white men were drawn into the bush to compete with them. Overproduction was the inevitable result, and the inevitable result of overproduction, helped by other world economic and political factors, was declining prices. By the end of the 1940s the Boreal Bonanza was over. Prices had slumped drastically and they never fully recovered. The Indians suffered most from the falling prices. A trapper at Fort Good Hope in 1948-49, for example, could make at the very most \$500 and he had to support his family on that<sup>(24)</sup>.

One solution for the Indian was to find a job and work for money. Many Indians had been doing this for some time. In the Yukon the Gold Rush that began in 1896 lured an estimated 60,000 white men into the territory (Yukon Native Brotherhood 1973:9). There were only about 3,000 Indians in the Yukon at that time and many of them took work as guides, packers and prospectors. Within a decade the rush had slowed to an easy dander and most of the white men had gone in pursuit of other dreams of wealth.

But in that time many Indians had learned to speak the Whiteman's language; many had accepted the Whiteman's religion; many had accepted the Whiteman's way of wanting his own personal possessions; some had given up the Indian way of life to work on river boats or other Whiteman jobs; and the percentage of the blood of many Indian children was changed.

(Ibid)



Between 1900 and the 1930s many Yukon Indians returned to the bush and trapped or worked in the bush with the white men. Many became quite well off.

In the 1940s the impact of the Second World War reached even the lonely mountain wilds of the Yukon. In 1941 the American army moved in to build the Alaska highway. The undertaking held out the temptation of money and jobs to any Indian who cared to yield and leave the bush. Many yielded, abandoned their traplines and moved to places along the new highway. They grew accustomed to the way of life of the white men or at least to the money that supported it. Unfortunately the big money that had flooded the Yukon disappeared when the Americans departed and the Indians were left high and dry in their lonely mountain wilds. Their traps were rusted and their cabins in need of repair. Many did not go back to the traplines. They moved into shacks on the edge of the white communities and hoped for more jobs.

Just as the Gold Rush changed the way of life of the Indian people of the Yukon, the mining developments of the 1960s promised to do the same. With the Dynasty Discovery in 1965 came the development of the Anvil Mine. Large numbers of white men moved in, and during the busy period of exploration and construction many Indians left their traplines to get jobs as line-cutters and stakers. Less than ten years later the mine was operating with an all-white payroll, and the village of Ross River was made up of former trappers many of whom had to depend on Indian Affairs and welfare hand-outs. In 1968, according to an official statement, only 3.4 per



cent of the total mining industry work-force in the Yukon, 28 men out of 820, were natives or half-breeds. In the Northwest Territories the total was 5.3 per cent, or 63 men out of a total of 1,182 employed in mining<sup>(25)</sup>.

In the Mackenzie district of the Northwest Territories the story, if not identical to that in the Yukon, has the same characters and much of the same tired plot. Indians in the Mackenzie could always find work as stevedores, interpreters and odd-job men during the summer months when they were not on their traplines. In the 1940s oil at Norman Wells was exploited and the associated construction and maintenance work gave the Mackenzie valley Déné their first taste of wide-scale wage labour (Balikci and Cohen 1963:39). This new taste was further pampered in the 1950s when DEW Line construction and the building of the new town of Inuvik gave many of the Indian population high-paying jobs. Balikci and Cohen found that few of the adult male Hare Indians had not worked at wage labour at some time during their lives and only a tiny minority said they would not take up wage labour if they had the chance. Opportunities included janitorial duties at nursing stations and schools, clerical work in stores, and assisting the RCMP. Not all work was full time. At Fort Good Hope Cohen (1962:45) described wage employment as 'scarce and confined largely to part-time summer work.' Balikci and Cohen (1963:40) found that 15 per cent of the adult male population of Fort Good Hope were involved in construction work, both in town and in other large centres, in working on river boats, cooking for construction crews and fighting fires. But these jobs were

only seasonal. For the rest of the year the men were dependent on subsistence activities and government relief.

In general Cohen (1962:21) found that that the greater the number of whites and other agencies, the more steady jobs were created. But nowhere did wage labour replace the more traditional ecological adaptations of hunting and trapping. This situation has existed for some time. For example, among the Chipewyans in the 1940s Robinson (1944:39) found that a few were employed as guides during the winter months; some acted as pilots on river boats during the summer; and a few cut cordwood for the steamers: all jobs associated with white activities. 'But it is from fishing and hunting that their livelihood must be made -- both now, and for many years to come.' Similarly at Fort Simpson Cohen (1962:21) found that although a spate of building in the late 1950s and early 1960s had attracted many Indians to the settlement for wage labour, 'a sub-stratum of hunting, fishing and trapping' still underlaid the local ecology. Many of those who were working on construction were also tending their nets in the evening and 'quite a number' intended setting traps in the winter. At Fort Norman and Fort Good Hope the ecology was 'traditional by default', for less than a dozen jobs in either settlement were available for non-white labour. Only at Fort McPherson was there sufficient work from a large building programme in the settlement and from the construction of the new town of Inuvik to 'undercut the necessity of traditional subsistence techniques.' At Providence in the late 1950s the RCMP reported that the construction of the Mackenzie highway was employing many

Indians as labourers, and others were finding work on building new homes, a new day school and a teacher's residence<sup>(26)</sup>.

But everywhere in the Northwest the opportunities for wage employment were on the whole more limited than a catalogue of available jobs would lead one to believe. The trapping and selling of furs remained the major source of income for the majority of Indians. As Helm (1961:36) pointed out, except for the then current building and business boom at Hay River, the oil industry at Norman Wells, and pitchblende mining and boat building on Great Bear Lake, the fur trade was still 'the only important commercial activity along the length of the Mackenzie.'

In the more isolated communities away from the river the opportunities for work outside the subsistence activities of fall fishing and winter and spring trapping were largely limited to minor seasonal work. At Snowdrift, for example, Oswalt and Vanstone (1963:27) found little wage employment for the Indians. Community fishing and tourist guiding was 'of growing importance' and a government-sponsored roadway clearing project took many young men away from the village in January and February.

The general feeling from published and unpublished reports is that if more wage work was available more Indians would take advantage of it. Even with current minimum wage rates trapping as an income activity compared unfavourably with wage work. Helm and Lurie (1961:42) point out that where three hours of work a day for five days would bring in \$24.00 for the janitor at Lac la Martre school, the same man might easily

spend an arduous week on a trapline, with all his home chores necessarily neglected, and not take \$24.00-worth of furs. Wage work consistently brought much greater remuneration than trapping, with less expenditure of time and energy.

Attitudes to wage labour varied with individuals. Helm (1961:33) found that in some men the pride and enjoyment they got from hunting and their appreciation of wild meat were so strong that they would always take most of their sustenance from the bush. Other men, however, appeared to find little interest and challenge in bush life and given an ample supply of money would probably cease most of their hunting activities. They, along with some of the women and especially the children, would welcome an increased variety and consumption of store-bought food if it could be obtained without sacrificing their desires for other types of commercial products.

The general ecological situation of the Déné from the late 1940s to the late 1960s -- increasing opportunities for wage labour but continuing overall dependence on hunting and trapping -- had noticeable effects on their food consumption patterns. Those who found work were compelled to rely for food upon the provisions available in the local stores, and the more they worked the greater was this reliance on store-bought foods. As a result, by the late 1950s the 'old patterns had been scrapped and replaced by a diet not as good as the traditional diet, and not up to Canada's food rules in most ways' (Lang 1960:49). But there were difficulties facing researchers and field officers attempting to keep track of eating habits:

It is hard to generalize about what the Indian and Eskimos eat. Their standards of living vary from homes with power, and running water and hi-fi sets, to a canvas tent with pine boughs spread for a floor. Their food patterns vary as widely and the average diet would not be considered nutritionally adequate.

(Ibid)

But throughout all regions hospital dieticians noticed a similar picture of food likes and dislikes (Ibid:51-52). Among the foods liked were oranges, bananas, apples and practically any kind of canned fruit. Porridge was a favourite food but had to be thick. Boiled or fried eggs, well done, were generally accepted. White bread was eaten in preference to whole wheat. Plainly prepared meat or fish and potatoes were always popular. Vegetables were often refused, but with some persuasion peas, carrots and canned tomatoes would be eaten. With a good choice of food available, a serving of bannock and lard was still enjoyed. Tea, served either hot or cold, was the universal drink. 'The tea they must have,' writes the Welfare Teacher about the Indians at Fort McPherson, 'since they are devoted tea grannies.' And bannock too '99% of them must have as there are only a few of them who can live on a diet of meat or fish alone' (27).

Vanstone (1963:26) records that in the isolated Snow-drift community all families had a desire and a liking for some Canadian foods and would buy them whenever they could. The most popular foods bought at the store were crackers, peanut butter, coffee, tea, sugar, flour, canned meats, canned fruits,



evaporated milk, candy bars and seasonings. 'Products of flour' were among the staples of the Snowdrift diet. Flour was regularly made into bannock and used to thicken soups and stews. Crackers and bread were not considered adequate substitutes for products made of flour at home, especially bannock. Bannock was eaten at practically every meal at all times of the year, and often a family would have little else but bannock, along with tea or coffee, particularly if there was no supply of meat, usually caribou, in the freezer. However, a meal normally consisted of some kind of locally obtained meat. All villagers at Snowdrift were very fond of meat, and many old-timers would not consider a meal adequate unless it contained meat.

A typical meal at any time of the year, whether in the village or in a hunting and trapping camp, might consist of boiled or dried caribou meat or boiled fish, bannock with lard, butter or jam, and tea, tea being by far the favourite beverage, though a 'considerable amount' of coffee was also drunk. Canned meat from the store was occasionally fried if used as a substitute for country meat, but was more often eaten from the can on crackers or bannock. On the whole the Snowdrift Indians liked the food well-cooked but not too hot.

Meal-times in the home varied considerably, depending on the time of year and many other factors. In summer the general pattern was for the family to take two large meals a day: breakfast on first rising and dinner about four or five in the afternoon. Snacks were eaten in between, especially by the children who were fed when hungry. In winter families

rose earlier, partly because the children had to be at school by 9 a.m. Three meals a day were more generally the rule in winter.

Eating three meals a day at more or less regular hours was a consequence of the more settled way of life of the modern Indian. Wage employment and school attendance led to sedentary living and daily routines, but even the life of the trappers was much less mobile than that of the traditional hunter who was continually on the quest for food. Eating times could vary, not only from group to group -- for example, compare Helm (1961:14) with Vanstone (1963:28) -- but within individual families where eating was often 'a piece-meal process', especially if, for instance, only two or four fish or pieces of meat could be broiled at a time.

Lac la Matre is another community for which information on recent eating habits is available. Helm and Lurie (1961:37) found fish to be the staple of the Dogrib diet there, but this was augmented by such other wild foods as small and large game, birds and berries. A relatively smaller proportion of the diet consisted of bought foods: tea, occasionally coffee, sugar, the inevitable ingredients of bannock, salt and, when available, powdered milk and powdered eggs. Less frequently purchased items included pilot biscuits, raisins, rice, oatmeal, barley, jam, butter, peanut butter, cheese, canned fruits and candy. 'However, the group could be adequately fed solely from the native environment, albeit they would consider themselves deprived without bannock, tea and sugar.' The basic meal day after day was fish, usually boiled or 'toasted', together with

bannock and tea and possibly supplemented by store-bought items when available.

Fish are often already boiled, or slowly toasting or baking through most of the day, and bannock is usually either already made or in process so there is no definable period of meal preparation culminating in the "dinner is ready" familiar to Canadian white society. Eating patterns are correspondingly simple and casual. Often the members of the family eat at different times, food being served to the father or older son of the family as he comes in from his labours out-of-doors, or a child being given a bit of bannock or dryfish on request... Evening suppers seem more apt to include the whole family.

(Ibid:38)

Finally Helm's (1961) study of the Lynx Point people contains valuable information on food and eating habits. Here fish and rabbits were considered, with an apt metaphor, to be 'normally the backbone of the meat diet,' assuring a daily supply of fresh food (Ibid:82). Flour, lard, tea and sugar were the basic food purchases, providing the bannock and tea which along with meat and fish were 'the staples of the diet' (Ibid:29). Rolled oats or packaged macaroni-and-cheese dinner served as occasional substitutes. Consumption of other commercial foods, such as canned butter, meat, fruits and vegetables, was scant. For most families this was 'due to a disinclination to spend scarce money for what were considered luxury foods.'

Here Helm touches upon the crucial problem in the diet of the Arctic Drainage Déné. Money is scarce, for trappers certainly, and even in general this is true also for wage-

earners whose menial and often seasonal or part-time jobs do not pay well. Imported foods are expensive and because of transport costs and freight rates are increasingly expensive the further away the settlement is from major distribution centres. Because of poor wages and low returns from trapping it is essential that the Déné obtain as much food as possible from the land. And not only for economic reasons. It is also the case, as Usher (1976:117) declares, that native people 'like country food better than store-bought food, and indeed many insist that a steady diet of imported foods would be abhorrent to them. This is no mere idiosyncrasy; country food not only tastes better, but it is also more satisfying and nutritious. There is no satisfactory substitute for it.'

But the land is not always considerate of human needs and preferences and often stints with impersonal callousness. The weather can be cruelly harsh and the animals fickle. Caribou migrations vary unpredictably and the numbers of many important food animals will fluctuate in cycles, so that in some years they may be almost unobtainable. Even fish are subject to annual and seasonal fluctuations and in the Mackenzie there is on record at least one report of their actual failure -- 1893 (Helm 1961:32).

In these ecological conditions, both natural and cultural, lies the greatest danger to the nutritional health of the Déné. Helm (Ibid:31) brings this out clearly with regard to the Indians of Lynx Point, but the problem is a general one.

We have seen that the Lynx Point community

relies heavily on the game of the bush for sustenance. A decrease in supply, therefore, means that there must accordingly be an increased expenditure of ever-scarce money for store foods if consumption standards are to be maintained, thereby allowing less money to fulfil other wants. Also, the isolation of the community prevents a quick and easy supplementing of the larder from the store, even if money is at hand. In point of fact, a shortage of meat usually means a decrease in food consumption, although the intake of bannock may be stepped up in partial compensation (in volume, at least, if not in terms of nutrition). Besides these objective considerations, the likes and dislikes of the people lead them to reject Canadian foods in favour of wild flesh. Although considered tasty by most, canned fruits and vegetables in their eyes are not real food. They do not fill one as meat and bannock do, and canned meat "tastes terrible". Certainly no-one who has attempted to live solely on canned meats for several months will argue this point with the Indian.

The problem is thus that if 'the flesh foods that are obtained by the hunting, fishing and snaring activities were removed from the present diet the remaining items of consumption would not suffice to maintain life' (Ibid:27). The remaining items of consumption are mostly starches in the form of commercial flour, rolled oats, rice, refined carbohydrates like sugar, jams, jellies, syrup and candy, and fats like lard and butter.

These new items of consumption represents a remarkable change from the traditional foods. Carbohydrates were relatively scarce in the former diet of the Déné, as they were to some degree also in European diets until the advent of sugar refining. The beneficial value of sugars in providing 'quick energy', writes Dr Schaefer<sup>(2)</sup>, explains the taste for



sweets common to most human populations but, in a time of overabundance of sugar in all forms, carried to 'a dangerous degree by the Northern Indians' (Emphasis Schaefer's). 'The greater scarcity of fat in traditional Indian diets may also explain their greater craving for fat which made lard such an important trade item from Indian trappers.'

'It must be plain to anyone,' writes Berger (1977:101), 'that if native people did not obtain country food, they would have to buy meat and fish from the store to replace the food they get now from the land.' The question raised here is what is the exact extent of the use by native people of the game, fish and fur of the land for subsistence and for cash? Usher (1976) attempts to answer this question. He reckons that a family primarily dependent on the land which obtained, for example, a dozen caribou, 60 geese and 500 pounds of fish a year would have obtained the equivalent of \$6,200-worth of meat. Such a harvest, Usher says (Ibid:115), would be a modest one in the Western Arctic, although its components would vary from place to place. A man working for wages full time and hunting on weekends and on holidays might reasonably expect to get 4 caribou, 30 geese and 500 pounds of fish, together worth about \$2,800. These are significant contributions to the household economy and it is easy to see why the native people are so concerned about the continued availability of country food.

Usher's figures also point up the dangers in the nutritional situation in the Canadian Northwest. When country food fails for ecological or other reasons most Indians cannot

afford to pay sums such as these for meat on top of their other purchases. Destitution, malnutrition and diet-deficient diseases and disabilities are the likely result.

## 2.5 Relief

Towards the end of the nineteenth century complaints began to reach Ottawa about the destitute conditions under which many northern and other Indians were living. For example, the Justice of the Peace at Fort Vermilion in the Peace River country, reported a very unsatisfactory state of affairs between the Beaver Indians and the Crees. The Crees were encroaching into the traditional hunting territory of the Beavers and killing not just game but horses<sup>(28)</sup>.

But what can we do in case of one Band going into the other's Hunting grounds, which will happen more & more, unless some steps are taken soon to assist Indians when starving. The game on which they entirely depend is almost gone, and times are getting worse and worse, deaths from starvation have happened thro' Peace river every winter for the last 3 winters, and during last winter some 13 Indians died within 60 miles of this place, literally starved to death, and the prospect ahead is, of course, worse as the game is decreasing.

(Ibid)

An early champion of the Indian in the Northwest was Bishop W. C. Bompas. In the fall of 1880 he had just returned from the northern part of his Diocese of Athabasca, a region 'totally unfitted for cultivation' which was one way in which

the government proposed to tackle the problem of destitution among the Indians. The northern Indians 'used to live fairly from the chase and fish' but 'yielding to their cupidity they ruined their country and cannot now find the food and sustenance they could in time past' (29).

But the Indians had to fend largely for themselves. Relief to destitute Indians in the northern forests was something to be arranged between the Indians and the traders for whom they trapped, or among the Indians themselves. The government's general instructions to its Indian Agents in the Northwest Territories informed them that 'no provisions were to be given to able-bodied Indians unless work for the same had been done by them' (30). But with regard to 'sick and aged Indians whether they come within the Treaty or not moderate assistance should be extended to them... The circumstances should however be very exceptional indeed under which relief is extended to non-Treaty Indians.' The only concession made by the government was to issue rations to Treaty Indians at Treaty time once a year, a token gesture of very little benefit to the Indians (31).

I have the honor to inform you that the Government has decided to issue a fixed ration to the Indians during the Annuity Payments which will consist of -- viz:-

2 lbs	Meat
8 "	Flour
$\frac{1}{4}$ "	Tea
$\frac{1}{4}$ "	Sugar
$\frac{1}{8}$ "	Tobacco

per capita.

At the end of the 1880s the ecological situation in the Canadian Northwest was deteriorating. A letter to The Evangelical Churchman of 3 May 1888 made public the grim conditions facing the Athabascans of St Luke's Mission at Fort Vermilion<sup>(32)</sup>.

The Indians around us are starving, and of the two rooms we and a young man training for the missionary work occupy for all purposes, cooking, eating and sleeping, one is occupied by hungry Indians... from morning till night... The Indian question throughout Athabasca is becoming a serious one, and considering that the Dominion Government have now mapped it out and formally included it as a portion of the North-West Territories of Canada, I think they should not delay in undertaking measures for their relief, similar to what is being done in the rest of the Territory...

The letter goes on to report that a camp of about twenty men, women and children about a hundred miles from Vermilion 'perished of starvation.' Two sisters survived till help came only by resorting to cannibalism.

The reasons for the 'almost constant state of semi-starvation' among the Indians of the Athabasca District were the almost total disappearance of rabbits and great scarcity of partridges; a high mortality amongst the beaver; a scarcity of lynx 'which will in all probability continue at least two years longer, as they are affected by the rise and fall of rabbits'; and at Lake Athabasca and other northern lakes 'a great failure of the fall and winter fisheries'<sup>(33)</sup>. During the winter of 1886-87 between the Peace and the Athabasca Rivers a party of 29 Cree Indians was reduced to three by

starvation and consequent cannibalism. In the Mackenzie River district there were 'several' cases of death by starvation and one or more of cannibalism. During the winter of 1887-88 between twenty and thirty Fort Chipewyan Indians starved to death, and the deaths of others were accelerated by want of food.

Within the personal knowledge of the undersigned many other Indians -- Crees, Beavers and Chipewyans -- at almost all points where there are missions, or trading posts, would certainly have starved to death, but for the help furnished by the traders and missionaries at those places -- furnished very often at great personal inconvenience.

(Ibid)

The Indian Agent of the Peace River District pleaded for assistance and suggested that a shipment of flour, lard and bacon be sent into the far Northwest with settlers who were going in that summer<sup>(34)</sup>. The Synod of the Anglican Church in the Diocese of Athabasca also pressed on the government 'the urgent necessity of rendering speedy help to preserve the survivors'<sup>(33)</sup>. Because of 'strong competition in the fur trade, and other causes, the Indians could not now look to the Hudson's Bay Company for help as they used to' (Ibid).

The Hudson's Bay Company, deciding that the situation was becoming too bad for the traders to handle, attempted to shift the responsibility for maintenance of the destitute Indians to the government<sup>(35)</sup>,



Information has recently been received from the Officers of the Company in charge at Athabasca, Mackenzie River and other Districts in the Northern Department, to the effect that the Indians, owing to the failure of wild animals and other causes, are undergoing great suffering and distress from want of food, and that several deaths have occurred from actual starvation.

The Hudson's Bay Company felt that 'the primary duty of extending relief is one now attaching to the Government, the Company having no special obligations resting on them other than those of humanity in common with other traders carrying on business in the same region.'

While the Company will gladly cooperate with the Government and give every facility in their power gratuitously through their establishments and Officers, they feel that they ought not to be expected any longer to continue, even were it possible, to supply provisions and food as they have hitherto done. The Board are persuaded that on a proper representation to the Government, and in consideration of the altered circumstances of the Company, the Government will acquiesce in the view of duty now attaching to the Government and themselves, and that such reasonable outlay as may necessarily have to be made to prevent actual starvation, will be provided and made good to them out of the public exchequer.

The government was indeed compelled to acquiesce. Because of the starvation and destitution during the winter of 1887-88 the Hudson's Bay Company were authorized 'to afford relief in extreme cases, not only on the Peace River and Athabasca districts but also in the Mackenzie R country ...'(36) It therefore came as an embarrassment to the

government when the public learned of similar distress in Northwestern Canada the following winter. The Rev. Edward H. Black, the Church of England missionary and schoolmaster at Fort Wrigley, reported that the winter had been very hard on the Indians on account of the 'absence of reindeer and the impossibility of hunting the moose successfully, in the absence of much snow' (37). That winter was the hardest in thirty years (38). Provisions gave out at the beginning of January and the only available supplies were flour and dried meat that had been brought by dogs from Fort Simpson (37). Archdeacon Reeve of Fort Chipewyan claimed that 'several' Indians had died of 'privation' during the winter and that thirty died of starvation the following summer (39). The reasons for the distress in the Mackenzie River district were given as 'the scarcity of reindeer owing to their having taken a more easterly course toward H. Bay than formerly, and the paucity of rabbits in that country' (36).

Faced with these charges the government claimed that starvation of this kind 'should have been averted by the H. B. Co. as the means of doing so were placed in their hands, and they undertook to prevent the same.' But the government could do little for most of these Indians anyway 'because they are not and probably never will be under treaty' (Ibid).

The Commissioner of the Hudson's Bay Company confirmed that reports of deaths by starvation were true (38). He knew of the deaths of four men and six children at Fort Wrigley and had heard unconfirmed reports of four more at Fort Liard. His excuse for the failure of the Hudson's Bay Company to

distribute the aid that the government said had been authorized was that they had not received the grant from the government till 1 July 1888 and 'it was quite impossible at that period of the year to send additional supplies into the District in question... I regret to say the same difficulty has occurred again this year. I would beg the government to come to a decision on this matter early in the year so that supplies may be sent forward when the ordinary means of transport are available.'

Charge and countercharge passed between the Hudson's Bay Company and the government. They illustrate the greedy self-interest of the one and the procrastinating incompetence of the other. The impression is that the Hudson's Bay Company were trying to force the government to make the Hudson's Bay Company the sole supplier of relief goods to the Indians. But the government kept resisting. However, they went part way to meet the Company's demands. They made the Company a special grant of \$7,000 'for the purpose of affording relief to Indians outside of treaty limits in the North West Territories in the case of whom, if such relief were not afforded, starvation would inevitably ensue...'(40). Although no treaty had been made with these Indians the government felt obliged to act toward them 'as it would in the case of any of Her Majesty's subjects, be they White or red who might be placed in a similar position'(41). As for the winter of 1889-90 a Hudson's Bay Company officer was reported to have said that 'game and furs were in great plenty and that the Indians were feasting' (Ibid).

The crisis appeared to have passed. Nevertheless, in order to avert any starvation in the Peace and Mackenzie River country that might ensue the following winter (1890-91) the Hudson's Bay Company was authorized to provide 200 sacks of flour and 10,000 pounds of bacon and 'to place the same at the most convenient points in the above districts where the greatest destitution is likely to prevail'.<sup>(42)</sup>

Then the Hudson's Bay Company won what it had been seeking for many years, and the whole system of relief to the Indians was altered irrevocably with far-reaching consequences for the Indian, the government and the Hudson's Bay Company.

The full story cannot be given here. But it appears that in September 1897 the Deputy Superintendent of Indian Affairs and the Commissioner of the Hudson's Bay Company met on a train from Montreal and came to an arrangement regarding Indian relief that was very favourable to the Hudson's Bay Company.<sup>(43)</sup>

Since our conversation a few days ago on the train from Montreal, I have had an opportunity of speaking to Mr. Sifton with regard to destitute Indians in outlying districts, and I have to say that he quite agrees with my suggestion that your Company should be empowered to furnish supplies to these destitute Indians to enable them to subsist during the winter months. I trust therefore that you will be able to forward to your officers outside such instructions as will meet the case. You are well aware of course that we do not wish to establish a general system of relief, nor do we desire to have it understood that the Government intends in any way to provide for distressed Indians, otherwise, as you yourself pointed out to me, they might go in for a larger quantity than they actually need.



Not everyone was happy with the arrangement whereby the Hudson's Bay Company were appointed Her Majesty's official distributors of relief to the Indians of the Northwest Territories. The Indian Commissioner in Winnipeg wrote to the Secretary of the Indian Department<sup>(44)</sup>;

There would also be grounds for objection to placing the dispensing of gratuitous issues of food in the hands of a trading corporation, the more so that there are now so many independent traders scattered throughout the unceded Territory, who would with reason take exception to such a course as placing in the hands of the opposition, the means of exercising an undue influence upon the Indian.

The worst fears of the Indian Agent and of others opposed to the arrangement were justified. The Hudson's Bay Company used its monopoly to gain a powerful position in the fur trade of the North and at the same time ingratiated itself with the Déné by a generosity that was as demoralizing to the Indian as it was good for business. Eventually the situation came to the notice of the Accountant of the Department of Indian Affairs who wrote a long letter to the new Deputy Superintendent General in 1905<sup>(45)</sup>;

I beg to draw your attention to a source of expenditure which is becoming very great and over which the Department has no control: I refer to the issue of supplies by the Hudson's Bay Company at their posts throughout unorganized territories. It was at first the policy of the Department not to admit the validity of claims by the Hudson's Bay Co. for these issues, but owing to a serious shortage in the natural



food supply which took place in the year 1888, an Order in Council was passed authorizing an expenditure of \$7,000.00 to relieve the pressing needs of the case.

The whole policy of the Department in this matter was altered by your predecessor in office on the 23rd September, 1897, and the door was thrown open to a very large expenditure for Indians in the unorganized districts.

Our current appropriations will by no means bear the pressure which is being put upon them and it will considerably increase the vote for destitute Indians to provide for the issues of the Company, under this general permission...

The stand which the Department took in past years was that the Hudson's Bay Co. having always been responsible for the subsistence of their old hunters should not make claim upon the Department in this regard, and I am of the opinion that we are largely assisting the coffers of the Company and thus increasing their profits by looking after their old servants in unorganized districts.

I understand the purpose of relief for the destitute to be temporary relief in food or clothing to Indians in distress, but not supplies to be issued as rations at stated periods as if to a pensioner, and the relief given to be food or clothing actually required to tide them over until they can again provide for themselves.

In looking over the accounts for supplies issued as relief to the destitute the following items appear, viz:- combs, glove needles, kettles, swansdown cotton, parchments, seal mitts, wax vestas, painkiller, lavender, ready relief, vials of saccharine, essence of coffee, Neave's baby food, baby feeding bottles, putty, prunes, pins, handkerchiefs, printed moleskin, soda biscuits, partridges, nails, screws, brandy, portwine and sherry.

Many of these articles are luxuries and none of them are classed under destitute supplies. Sugar and tea are issued in nearly every case, although unnecessary, and form a large item of the account. The issue of game, particularly rabbits, fish and partridges, shows there is plenty of game in the country, and the issue

of provisions unnecessary -- and the reasons given for issues such as "Poor Hunters", "Widow", "Orphan", etc., are unreasonable, because where there are fish, rabbits and partridges Indians will never want long for food because the women and children can kill them as well as the men...

At Christmas flour, tea and sugar were issued to many, which was apparently a present from the officer in charge of the posts.

The Commissioner of the Hudson's Bay Company defended the company's liberality. He claimed that 'the aid furnished is restricted to deserving cases of destitution and sickness.'<sup>(46)</sup> 'Although many of the articles enumerated in your letter cannot directly in themselves be considered necessities of life they are in a majority of cases, the means indirectly of accomplishing what the Department have in view, i.e. providing Indians in destitute circumstances with the means of providing for themselves.' The Commissioner referred to the 'inborn' improvidence of the Indian which often left him short of food so that 'although their helpless conditions may at times be said to be self inflicted, their case is nevertheless distressing, and it sometimes happens that fish or game can be supplied with greater economy than Pork or Bacon.' Twine was supplied so that the Indians could go out and fish or snare for food; needles enabled them to patch or make articles of clothing for themselves; nails, cotton, cloth, etc. were 'largely used in the manufacture of various articles for themselves, under various conditions, to tide them over cases of emergencies and enable them to provide for themselves.'

Without any desire to question the ruling of the Department in the matter of Tea and Sugar, which it is noted are considered luxuries, I may be permitted to remark that these commodities have for ages been so interwoven with Indians diet that it may be said to be essence of life to the natives, and a necessity to their existence.

The Commissioner did admit that in exercising their discretion in the dispensation of relief 'the Postmanagers may have perhaps in some instances, erred on the side of liberality, but it is believed as a whole their instructions to exercise their best judgement with a view to the greatest consistent economy have been carefully followed.'

The Department of Indian Affairs did not accept the Hudson's Bay Company's defence of the goods issued to 'destitute' Indians. The Company, wrote the Deputy Superintendent General was 'asking the Department to assume an obligation which it sees impossible to meet and which it was not intended to assume when the correspondence was opened in the autumn of 1897' (47). 'The accounts for the most part have the appearance that the Department is simply being asked to pay up the bad debts of the Company' (48). In the ensuing correspondence the Department took a stronger stand against the Company whose arguments for the continuation of payment for relief grew noticeably weaker.

The question of 'supplies and assistance to the sick and destitute' became, and continues to be, a topic of often fiery debate. The arrangements instituted between the Department of Indian Affairs and the Hudson's Bay Company were attacked on three main fronts (49). Firstly, on ethical grounds,

'the administration of charity to the Indians' was believed to lead to 'indolence and prevarication.' Secondly, the system was open to waste and abuse where a trader in any particular post could issue rations or relief to those he considered destitute Indians and then charge them to the government. This privilege 'came to be often unduly exercised and although recently owing to the vigilance of the Treaty Inspector such abuses have been greatly mitigated yet a repetition of the same is not unlikely, unless the onus of the distribution of relief be placed in the hands of disinterested parties.' Thirdly, the arrangements current before the First World War gave an unfair advantage to the Hudson's Bay Company. Critics felt that relief should come directly from the hands of representatives of the government so that the Indians should be aware of the exact source of the assistance they received. 'At the present time, probably 70% of the total Indian population labor under the delusion that the H. B. Co. are the donors of this charity and the sooner such ideas are dispelled the better. It is obvious that the H. B. Co.'s officers will not go out of their way to disillusion them as such a belief materially enhances their position with the Indians' (Ibid).

Eventually in an attempt to put some order into the chaotic situation the Department of Indian Affairs decided to be strict in its procedure for dealing with destitute Indians<sup>(50)</sup>. Relief was to be given only to those Indians who were incapacitated through illness or deformity or who were in a destitute condition through some unavoidable misfortune.

No luxuries were to be supplied. Foods considered necessities included flour, pork, tea in small quantities, and lard in lieu of pork or one-half of each. In cases of serious sickness milk, sugar and such necessities could be given in limited amounts for use of the sick person only. Patent medicines should not be approved, but such staples as salts, castor oil, etc. could be issued where required. A means of inspection of relief issues would be introduced and the government reserved the right to refuse to pay for any goods or food supplied to undeserving cases.

Leaving aside for the moment the controversial question of the psychological and social consequences of living on relief, the main impact of such assistance on the Déné was to accustom the Indians to southern Canadian foods. For example, the standard rations issued to the Indians at Fort Resolution in 1928 included tea, sugar, butter, bacon, jam and canned meat in quantities that varied with the size of the recipient family<sup>(51)</sup>. Some received rolled oats. Some were given condensed milk which 'was issued to sick children and babies who could not be nursed by the mothers through sickness.' In 1929, also at Fort Resolution, relief rations included flour, lard and baking powder -- obviously for making bannock -- as well as rice and prunes<sup>(52)</sup>.

In the Yukon Territory provisions up to the value of \$20 per month were issued. Two sample lists for October 1932 contained the following<sup>(53)</sup>,



(I)

24	lbs	flour	1.75
10	lbs	sugar	1.00
12	tins	cream	2.25
15	lbs	potatoes	1.00
3½	lbs	onions	0.50
3	lbs	pickled pork	1.00
3½	lbs	bacon	1.22
4	doz	eggs	3.00
2	lbs	coffee, Nabob	1.25
1	lb	baking powder	0.50
5	lbs	beans	0.60
4	lbs	prunes	1.00
3	lbs	evaporated apples	1.20
3	lbs	butter	1.26
6½	lbs	beef	2.00
1	carton	matches	0.25
			<u>\$19.78</u>

(II)

1	sack	rolled oats	0.75
1	sack	flour, 24 lbs	1.75
10	lbs	sugar	1.00
10	tins	Eagle milk	3.00
15	lbs	spuds	1.00
4	lbs	bacon	1.40
4	doz	eggs	3.00
1	lb	black tea	0.60
1	lb	coffee	0.75
7	lbs	beans	1.00
5	lbs	prunes	1.00
4	lbs	butter	1.68
6	tins	soup	1.00
3	tins	tomatoes	0.75
3	lbs	boiling beef	1.00
1	carton	matches	0.25
			<u>\$19.93</u>

Treaty Indians continued to receive a gift of rations at Treaty time each year in spite of attempts to have the practice stopped, but the amounts had been increased significantly since 1884. The Inspector of Indian Agencies wrote in 1936<sup>(54)</sup>,

I found that at Treaty time the Indians get 50 pounds of flour per family, 6 pounds of bacon and 2 pounds Tea. I have not had time to read over the Treaty agreement and do not know whether this was promised to the Indians, but evidently they were given rations when they signed the Treaty in the first place, and the practice has been continued ever since. No doubt if this were stopped there would be the greatest dissatisfaction amongst Indians, and as they are for the most part an ignorant people, it would be impossible to explain to them that this was just meant once and for all. You simply could not get them to understand it, and it is a little treat for people who live mostly on fish and wild meat, so I do not think it would be in the interest of the Government to stop the issue.

But the Inspector of Indian Agencies thought that ordinary relief rations had in the past been 'given out too freely altogether.' He argued -- ignoring evidence to the contrary -- that there had always been an abundance of meat and fish in the Mackenzie district and to encourage the Indians to expect rations was really harmful to them.

We must discourage the issuing of rations to Indians wherever possible, although we all know we cannot take those off the ration list who are now receiving rations. In all probability the list is cut down fairly well by now, since it was found necessary to economise as much as possible. If the Indians are hard up we can furnish them with a little more fish netting and ammunition -- something with which they can make their own living -- and this would appear to be a much wiser plan.

The question of the impact of relief rations on the Indians was unavoidable and most official letters and reports touch on it to some degree. Some argued that taking the

Indians off relief would be worse than leaving them on it. The Medical Officer at Fort Smith, for example, thought that relief measures did 'tend to pauperize the native' but that if the Indians were left to their own resources 'the immediate and future results would certainly be disastrous'.<sup>(55)</sup> The reason, as others argued, was that the Indian would make no effort to fend for himself. A government officer put it this way in 1930<sup>(10)</sup>,

Apart from the fact that there is food-stuffs for all, one thing is a certainty and it is this: the improvident Indian lives for today and will not take advantage of the morrow; he is shiftless and lazy and seems not to take any account of the future. So long as he knows that there are Government rations available for himself, family and dogs he will remain in the forts and treat the trap lines, his natural following, as an auxiliary toward his existence. Rarely if ever will the Indian or his family take the trouble to provide a future supply of fish for their dogs, notwithstanding the abundance of this natural food; they are not only content but permitted to remain in the forts during the fishing season, begging fish from others. Evidence of Indians feeding their dogs on oatmeal when fish was plentiful is available.

The Medical Officer at Fort Smith believed that, like it or not, 'the Department will be compelled to look forward to some form of permanent relief.'

This was a prophetic statement. Indians have, in fact, been on relief permanently since the nineteenth century, and relief became an established and accepted condition of life in the North, though opposition similar to that expressed above continued to be made. The ration itself varied with

time. In 1940 at Fort Smith the standard ration issued to destitute Indians and half-breeds was made up of<sup>(56)</sup>,

11 lbs bacon  
2 lbs tea  
75 lbs flour  
10 lbs sugar  
2 tins lard  
1 tin baking powder

A few years later the rations issued to destitute widows in the Northwest Territories, those least likely to be able to supplement the rations in any way, were as follows<sup>(57)</sup>,

24 lbs flour  
10 lbs sugar  
10 lbs rice  
1 lb tea  
1 lb baking powder  
3 lbs tallow or lard  
1 pkt matches  
1 gal corn oil

Dr P. E. Moore, Director of Indian Health Services, described this ration as 'grossly inadequate in vitamin A and ascorbic acid even though it supplies a reasonably generous amount of calories'<sup>(58)</sup>. It was also rather low in calcium, iron and vitamins. Dr Moore recommended the following changes:

- (1) Flour provided should be Canada Approved White Flour since this will substantially increase the amount of thiamine and slightly increase other nutrients.
- (2) The following foods and quantities should be added to the list: dried beans, 4 lbs; dried prunes, 2 lbs; milk, evaporated, 8

lbs, or if in dried form, 1 lb;  
tomatoes, canned, 7 cans, size 2½.

- (3) Reduction of amount of rice from 10 lbs  
to 4 lbs.

'The caloric content of the revised diet,' Dr Moore commented, 'would be between 2800 and 3000 calories which is more than adequate but the nutrient figures would be still at a bare minimum level. Nevertheless, I think that they would be very much better than the present ration.'

Relief rations in general were revised partly along the lines of Dr Moore's recommendations in this particular case but, as Dr Moore himself had said, the revised issue was nutritionally still at a bare minimum level and it continued to come under criticism. In February 1956 an Interdepartmental Committee on Relief and Tuberculosis Rehabilitation Rations held its first meeting with the purpose of studying the ration scale currently in use in the Northwest Territories<sup>(59)</sup>. The standard relief ration for one person for one month consisted of:

Flour	24 lbs
Rolled oats	6 lbs
Rice (or potatoes in equivalent value)	2 lbs
Sugar, jam or molasses	2 lbs
Lard, fortified, margarine or beef fat	3 lbs
Beans, dried, or extra rolled oats	5 lbs
Tea	1 lb
Baking powder	1 lb
Cheese	1 lb
Salt	10¢-15¢ monthly per family



Milk	1 pt or equivalent for each child
Fresh or canned meat or fresh fish	\$2.50

At the second meeting of this committee Dr L. B. Pett, Chief of the Nutrition Division of the Department of National Health and Welfare reported that scientific analysis of this ration compared favourably with nutritional requirements with two exceptions: vitamin C, which was only one-tenth of normal daily requirements; and calcium, which was slightly lower than that prescribed by recommended nutritional standards<sup>(60)</sup>. Dr Pett advanced the proposal for the committee's consideration that a flour and skim-milk mixture in the ratio of 10:1 should replace separate portions of flour and evaporated or skim-milk. He explained that this mixture would provide an equal distribution to all members of a family.

In a letter to the chairman of the committee Dr Pett wished to emphasize one point<sup>(61)</sup>,

From a nutritional viewpoint no list of foods guarantees adequate nutrition; the more lengthy or more complicated that a list becomes, the more difficult it is to state its adequacy. A diet based largely on flour, such as this relief ration, can only be considered nutritionally safe if that flour is mixed with skim milk powder so that all people concerned receive a proportion of the milk.

It should be noted that the nutritional adequacy of different diets depends on how much is eaten by which persons. The more alternatives that are authorized in a ration list, the more difficult it becomes to state that the ration provides adequate nutrition.

But the ration list that the Department of Indian Affairs eventually recommended was somewhat longer than Dr Pett wanted. It is set out in Table 2.1.

Additional forms of relief introduced into the Déné cultural system at the end of the Second World War were Family Allowances and pensions for the old, blind and disabled. Government officials stress that there is a difference between relief and Family Allowances. The government issues relief to families when it finds that they are definitely unable to maintain themselves; it is the furnishing of basic requirements to families in need. Family Allowances supplement basic requirements. The cheques for Family Allowances are a very important supplement in most Indian communities. At Lynx Point Helm (1961:36) found that they provided an income second in amount only to the fur trade. A family of four children could receive from \$288 a year if all the children were under 10 years old to \$384 if they were all between the ages of 11 and 16. Helm described Family Allowances as the only dependable and predictable income for most Slave families. The Welfare Teacher at Lac la Martre, however, argues that Family Allowances and pension cheques 'do not go far in the purchase of necessities as flour, baking powder, lard, clothing, tobacco, gas, shells, etc.' (17).

In operation the cheques went to the Hudson's Bay Company with other mail so that the recipients did not normally see their cheques unless they specifically requested them. The Hudson's Bay Company manager either applied the cheques against debts or toward credit, and very rarely did the recipient

Table 2.1

Scale of food authorized for direct relief  
to indigent Indians

	1 Adult	2 Adults	3 Adults	4 Adults	5 Adults	6 Adults
	lbs	lbs	lbs	lbs	lbs	lbs
Flour (Vit A)	24	36	49	61	80	98
Rollod oats	6	9	12	15	18	18
Baking powder	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2	2	2
Tea	1	1 $\frac{1}{2}$	2	2	2	3
Sugar	2	4	5	7	8	10
Lard	3	5	8	10	10	13
Beans	5	5	7	7	8	8
Rice (or potatoes up to equivalent value)	2	3	5	5	7	7
Cheese	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2	2	3
Meat or fish	\$2.50	\$3.75	\$4.50	\$5.00	\$5.50	\$5.75
Salt	10¢	or 15¢	per month	per family		
Matches	10¢	or 20¢	per month	per family		
Canned tomatoes or tomato juice (28oz tins)	9	14	19	24	29	34
One pint of milk or equivalent in evaporated or powdered form per day for each child of an indigent family 12 years of age and under.						

Source: Memo from J. H. Gordon, Superintendent of Welfare,  
Department of Indian Affairs, d. 30 October 1957  
(RG10, Vol. 6926, File 142/29-1, Pt. 2)

receive cash (Vanstone 1961:30). The traders who cashed the cheques, however, and sold the goods to the Indians were expected to see that only food and other items of direct benefit to children were purchased with the money (Helm 1961:36). Coffee and cigarettes, for example, could not be bought with Family Allowances cheques. Whether or not the Family Allowances system has succeeded in improving family diet for the Indians is controversial. Soon after the allowances were inaugurated Dr Mulvihill, the Medical Officer at Fort Resolution, wrote<sup>(12)</sup>,

Family Allowances, as may be expected, is not accomplishing the purpose for which it was intended among the Indians in the Great Slave Lake area. Except in rare cases it is not a supplement to the children's diet and clothing but is the basis of the family's food supply. It is treated by most Indians as another source of income which will allow them to carry on with that much less work.

Each month they are on hand to draw their family allowance when they should be living in the bush. If the family allowance has improved the health or the clothing of these children they must have been in a terrible condition before 1945.

Dr Mulvihill was not in favour of anything which he believed had contributed to the destruction of his own idealized concept of the Indian as Noble Savage. On the other hand a modern anthropologist has written of the Snowdrift Indians: 'There can be no doubt that the payment of family allowance has had the result of better clothing and food for children' (Vanstone 1961:30).

## 2.6 Horticulture

When the first white men began to settle in the Canadian Northwest they had little desire to adopt entirely the native diet of wild meat and fish. Flour, fruit and vegetables could be brought into the country either fresh -- or as fresh as could be expected after a long arduous journey -- or canned. An alternative that occurred to missionaries, police and traders was to plant gardens and grow vegetables. A report on the Mackenzie River district in 1941 reads<sup>(62)</sup>,

The only portion of the Northwest Territories in which agricultural operations on any appreciable scale can be conducted is in the basin of the Mackenzie river. Even here, however, the amount of arable land is not as great as it might appear, and is largely confined to the islands in the rivers and to the immediate vicinity of the stream courses where drainage is good. The remainder of the country is unsuitable because it is largely muskeg or because it is too rocky or mountainous. There are, however, ample areas of good land so that all the garden produce necessary to supply the needs of the trading communities or the mining populations to the east can be grown. Agriculture, combined with cattle raising, should obviate the need for imports of canned goods and result in a more balanced economy for the whole region.

White settlement of the area fortunately followed the banks of the Mackenzie and other major rivers, and the potential of the arable land along those banks was quickly realized. The first to exploit the land horticulturally were the pioneer post factors who augmented a diet of fish and game by establishing gardens for local consumption.<sup>(63)</sup> After the



middle of the nineteenth century missionaries of the Roman Catholic and Anglican Churches also settled in the Mackenzie valley and soon extended gardening. A flourishing farm and garden industry had developed by the late nineteenth century to help feed the local residents.

Attempting to garden in the North not only brought possible rewards of vegetables reminiscent of home, it also entertained priests, mounties and traders during their northern sojourn... Armed with seeds mailed from home, the newcomers soon discovered that the long days of summer -- 24 hours of dim sunlight near the pole -- speeded up crops that had only a few weeks of grace between frost and frost. Trappers on the Yukon and the Mackenzie could seldom resist planting a few cabbages and carrots to enliven the diet of moose...

(Bennett 1979:43)

The summers may be short but the amount of sunshine is excessive and the 'long summer days give an amazing filip to growth' (Albright 1933:10) that enables vegetables, grains and grasses to reach maturity in remarkably short time. Albright in July 1930 noted that corn at Fort Smith was 'far ranker' than on the same date in the Peace. The long summer daylight makes possible the growing even of wheat which is successfully ripened as far north as Fort Simpson, 62° N. North of Simpson returns tend to be low for the effort required, except for hardy vegetables and native grasses<sup>(64)</sup>. Lettuce, spinach, radish, cauliflower, cabbage, kale, peas, carrots, beets, turnips, green beans and potatoes are commonly grown at all settlements. Potatoes produce as high as 200

bushels an acre in good years<sup>(63)</sup>. Although tomatoes, squash, pumpkin and gourds are hazardous crops north of Fort Smith they produce well under glass throughout the valley. Albright (1933:10) records that two-inch tomatoes were produced from seed sown in the open ground at Fort Smith. Perennial vegetables, with the exception of rhubarb of a poor quality, are not generally grown. Cultivated strawberries and raspberries are grown in several of the settlements, while native fruits such as wild currants, gooseberries, blueberries, raspberries and cranberries are found all along the river system. Apple trees bearing fruit for jam were seen at Fort Resolution in July 1930 (Albright:ibid).

The missionaries were instrumental in encouraging the Déné to take up horticulture, and one of the earliest references to Indians planting crops comes from a letter that Bishop Bompas of Athabasca wrote to Sir John A. Macdonald in 1880<sup>(29)</sup>. 'If they could find in the borders of their lakes a patch of land fit for cultivation they took possession of it to raise potatoes, but these places are hard to find and it is only after a great deal of trouble that they can secure places near at hand.' In 1917 a missionary suggested that the Forty Mile band of Indians in the Yukon 'be encouraged to make an effort to grow potatoes and other vegetables' and it was hoped that they would try to do so that spring<sup>(65)</sup>. 'The land is not, I know, very productive,' wrote the Indian Superintendent, 'having tried some gardening during my six years residence here with very poor results' (Ibid). In 1934 the Medical Officer at Fort Resolution reported<sup>(66)</sup>,

We have been encouraging the Indians when feasible, to have small gardens, and glad to say that at Rocher River, Hay River and Providence many gardens were made and not too bad, these families at least will have a few vegetables, that they like, and it is a help in food for them, besides having medicinal properties that we only wish more could be done

The big impetus to Indian gardening seems to have come with declining returns from fur and the consequent economic and ecologic hardships of the late 1930s and especially the 1940s. In the spring of 1939, for example, those Indian families having homes in Fort Resolution came back in from the bush and planted gardens. The Indian Agent reported that 'a great number seem to follow their example as they keep calling at the Agency for potato and other seeds' (67). And in the fall of that year at Resolution, Little Buffalo River and Hay River 'several families... gathered in their garden produce consisting of a few bushels of potatoes and carrots' (68).

Even as far north as Aklavik the interest in gardening was growing. Dr Livingstone, the Medical Officer stationed there wrote in 1942 (69),

The Indians around Aklavik are becoming interested in vegetable gardening and I have impressed upon them the advisability of fresh vegetables in their diet. Several of them already are growing a small amount of vegetables and this year a number of them have applied for small plots of ground to be used for this purpose. As their health depends greatly upon their diet advice from the Agricultural Department and also small amounts of suitable seeds for distribution should prove helpful to their general welfare.

During the following winter 'several Indians' applied for residential land reservations 'with regard to growing vegetables etc' which Dr Livingstone 'considered favourably'.(70).

At this time Honigmann (1946:104) was conducting his fieldwork among the Fort Nelson Slave and he noted then that gardening was 'of growing importance.' When Taylor (1945) made his trip down the Mackenzie he saw lots of evidence of this growing interest in gardening, including, at the back of a clearing at Hay River, 'an unusually energetic Indian' who was clearing and burning the muskeg to make a garden (Ibid: 209). These Indians were responding to the example set mainly by the priests and medical personnel in the Mackenzie valley and to the persuasion of other white men that gardening was part of a solution to the ecologic and economic hardship of the 1940s. The 'slightly better living standards' around Fort Simpson in 1948 were ascribed to the fact that 35 families grew gardens in the summer(71).

The growing of gardens in the Fort Norman district could partly supply many of the Indians with their wants. I am aware it will take considerable time to get the Northern Indian interested in this source of livelihood but I believe that time spent in this way would eventually prove successful.

(Ibid)

Perseverance here bore fruit. At Hay River in 1950, for example, the Welfare Teacher reported that 'Every able Indian man or woman have [sic] their own garden and they are doing

a fair job in keeping them clean and vegetables are growing rapidly.<sup>(72)</sup> By the following January most of the Indians had plenty of good vegetables left and the Welfare Teacher was pleased when the manager of the Hudson's Bay Company store remarked that he had not been able to sell any carrots, turnips and potatoes that year because the Indians all had their own vegetables<sup>(73)</sup>. 'Next year we hope for bigger and better gardens and to do this I am going to have the soil tested and ask for fertilizer to ensure good crops even if we have a drought.' Help from the Dominion Experimental Farms Service in Ottawa had been gladly extended to northern gardeners since the missionaries first received assistance in 1911<sup>(63)</sup>. Thereafter the missions and the Experimental Farms Service carried on co-operative trials at Fort Smith, Fort Resolution and Fort Good Hope.

Assistance for horticulture was eagerly requested by government representatives who could see the value of supplementary garden produce at times of social distress. The Welfare Teacher at Fort Simpson, for example, reported in 1952<sup>(74)</sup>,

Someone stationed at this place to help...  
[the Indians] with agricultural products and pursuits, to supplement the meat and fish diet would do these people inestimable service, and from seeing the responses of children at the sight of a fresh carrot or beet and other raw vegetables, I think that in some places a good farmer would be a greater service than a school teacher... There is plenty of arable soil along the river which could be used for mixed farming. Mr. Gilbey has shown that this is quite possible in his work here at Fort Simpson.



Three years later a full-time man was appointed by the Territorial government to perform a variety of duties of which one was 'to supervise and encourage the Indian population in hunting, trapping, gardening, commercial fishing and other activities' (75) (Emphasis added). At the same time as this appointment was made by the government 'Mr. Goodall, representing Fort Simpson and Fort Liard, suggested that in order to improve... [the Indians'] economic welfare, steps should be taken to arrange for small tractors to assist in the cultivation of gardens, and for the provision of seed to enable them to improve their gardens. This can be worked out in connection with our plans for farm extension work' (76). This assistance could make a big difference to the work of those in charge of gardens in the North. The Welfare Teacher at Fort McPherson, for example, wrote that 'It is certainly a great deal easier preparing the community garden with the tractor than it was before we received it. I have two thousand cabbage in flats ready to put out when the men return' (77).

The community garden at Fort McPherson had been planted in 1953 (78).

Since then it has been enlarged and equipment has been purchased. The labour is voluntary, and the crop is divided according to time contributed per family. This project was directed by the welfare teacher. All though it requires a great deal of time, I feel it is a worthy cause. The results are already visible. Last summer at the Mouth of the Peel River, I saw three private gardens closed in with log fences. More Indians are making gardens at their fish camps each year.

By the late 1950s gardening had become an accepted part of the Indian ecology in the Mackenzie valley. Helm (1961:21) records that at most Indian settlements 'there are one or more gardens under cultivation, producing potatoes and sometimes turnips and occasionally other vegetables.' Cohen (1962:22, 29) found that almost everyone in Fort Simpson had a garden and that house gardens and a community garden for Indians at the south end of the island 'have now become an institutionalized part of local life.' One settlement that does not appear to have become involved in gardening was Fort Good Hope where Cohen (Ibid:45) found that only one Indian woman had a garden. 'Non-White informants' in the settlement 'usually laughed when asked whether they had ever gardened or intended to do so in the future.' There had been gardens at Fort Good Hope at least since 1920<sup>(64)</sup>, but apparently this was a white occupation<sup>(79)</sup>,

The R.C. Mission at Good Hope has actively fostered agriculture for many years. A variety of garden products is produced. All are started in a greenhouse and plants are provided to interested persons in the settlement and at Arctic Red River. A good supply of potatoes is grown and although Good Hope is at the Arctic Circle there has been fairly consistent success at gardening.

But the Indians do not appear to have been attracted. In 1957 the Welfare Teacher reported that 'less people than ever... are putting in gardens. As one said "If we can't get rations at the Bay, we'll get them from the Police (Indian Affairs representative). And if that doesn't work we can get them

from the Mission. So what incentive is left? (80). This attitude appears to have been typical of Fort Good Hope at this time. Here the Welfare Teacher in 1956 reported some cases of near starvation 'due to lack of effort' (22).

Fort Good Hope, however, appears to have been exceptional. Everywhere else along the Mackenzie gardens worked by the Indians became a part of the new way of life of the Arctic Drainage Déné and a valuable addition to the food resources of the native people.

## 2.7 Infant and child feeding

A considerable proportion of the food energy acquired through the ecological adaptation of a population is reserved for the sustenance of infants and children. This represents a major investment in the future of the breeding population on which few people will stint as long as food is available. Infants and children are fed either directly from the food resources present in the environment or indirectly through the mother's breast milk. Breast milk is normally the first food that infants receive and they will live on it for an initial period of their lives that varies widely but is commonly about three years. This nursing period of three years, or even longer in some cases, is most likely to be found among hunting and gathering peoples who have no fine or easily digested food as a substitute for mother's milk, and no milk from domestic animals to replace that from the infant's mother. Jenness (1932:49) makes this point with

regard to the Indians of Canada. No infant under the age of three years could assimilate a diet solely of meat and fish. So weaning was delayed till after that time. Sue (1965:17) quotes one of the oldest descriptions of infant feeding among the Athabascans, an account from 1866 that refers to the Chipewyans:

Respecting the food of infants, the routine is as follows: If the mother has milk they suck as long as she yields it; otherwise mashed fish, chewed dried meat, or any other nutritious substance that can be had from a not very extended variety is given... Another extraordinary practice is their giving no nutrient to infants for the first four days after birth, in order, as they say, to render them capable of enduring starvation in after life, an accomplishment which they are very likely to stand often in need of.

Dr Bourget, the Medical Officer at Fort Resolution, was strongly opposed to the prolonged nursing period that lack of milk forced upon the Déné<sup>(66)</sup>,

Of course the impossibility for mothers to procure milk for their children force[s] them to nurse the babies until a ridiculous [sic] age, but no other solution can they find, and unfortunately we cannot very well offer them a solution; the milk from the stores is hard to procure while in the woods, and expensive at that, and other source of food available for the child, who has to leave the breast for fish or meat. Under these handicapped conditions the mothers have no choice, but the consequences are terrible for the child...

Dr Bourget wrote elsewhere that this situation was 'causing

many babies to become victims in early infancy.<sup>(81)</sup> In an earlier report he wrote: 'Mothers are nursing their babies until two and three years, for convenience, and difficulty to procure the food to the babies, and the mothers half dead themselves with lack of proper food.'<sup>(82)</sup> Here Dr Bourget appears to be blaming the poor nutrition of the mothers for the disastrously high morbidity and mortality among breast-fed infants, but the clarity of his meaning, here as elsewhere in his reports, tends to be obscured by his badly fractured syntax.

One has to bear in mind that when Dr Bourget was working at Fort Resolution the Indians had suffered the devastating epidemic of influenza that swept across the Arctic in 1928 and that tuberculosis incidence was increasing at an alarming rate<sup>(83)</sup>. Health in general was not good among the native peoples and this showed in those most susceptible to the ravages of disease: the children. Dr Bourget wrote in 1930<sup>(82)</sup>,

During our visit this summer we were rather sadly impressed with the poor looking lot of children at many Forts, Rae included; a Fort that used to have the best lot of well fed children, years past, but not so this summer. Many were sent to the hospital, with scrofular troubles, tuberculosis, undernourishment etc.

Dr Bourget's report is generally pessimistic. Disease and death were taking toll of the Indians under his care among whom there had been 28 more deaths than births during the previous year. Among the many problems responsible for the uneasy picture was undernourishment, 'a hard thing to fight against in this country.' But the situation improved over



the next couple of years and meat in particular was again in plentiful supply<sup>(10)</sup>. In the summer of 1932 the Indians 'were looking well nourished, and children especially did show it. They did not show the same misery so prevalent in 1928-29 and 1930.'

As canned and powdered milk became more widely available in the Arctic both during and after the Second World War there came about a noticeable shift in infant feeding practices from breast- to bottle-feeding. Indian mothers were lured to bottle-feeding on medical advice and by imitation. This change has been disastrous for the health of children, leading as it has to several times more running ears, pneumonia, vomiting, diarrhoea, hospitalization and post-neonatal mortality<sup>(2)</sup>.

The greater risk of Northern native infants which no doubt is mainly due to unfavourable environmental conditions not easily and only slowly amenable to change make it especially important for us to encourage and facilitate continuation or re-establishment of traditional modes of infant nutrition, that is especially breastfeeding for a minimum of 6 months, preferably [sic] much longer as practiced by foregoing generations.

(Ibid)

Nowadays only 4.4 per cent of Indian mothers breast-feed their babies up to six months and only 1.5 per cent up to a year (Ibid). Dr Schaefer and others are strongly urging a return to much longer periods of nursing, not only to improve health but to lower fertility.

In the early 1960s nurses told Indian mothers that it was unwise for them to nurse their infants after they reached the age of one year (Vanstone 1963:37). Nevertheless many of the Snowdrift Indian mothers studied by Vanstone continued breast-feeding till their child was three or four years old. When weaning did occur, at whatever age, it was often to a bottle rather than to solid food. As a result several babies were described by their doctor as 'overly fat with soft, more or less flabby fat which indicated insufficient solid foods in their diet.' The doctor suggested that the mothers should feed these babies more fish cut up fine or made into soup. But some mothers did not think it was right to feed a baby anything but milk. They would not give their infants pabulum or other easy-to-eat foods that were recommended. Instead they gave nothing but milk either from the breast or from the bottle until the child was old enough to eat meats and other items of the normal adult diet. The more progressive mothers looked down on this practice and pointed out that that was why many of the smaller children in the village were undersized for their age. Vanstone (Ibid:38) watched a number of these more progressive mothers feeding their small children crackers spread with lard and fish cut into small pieces as well as pabulum and sweet baby cookies. Sue (1965:27) observed Indian mothers giving pabulum to their infants as early as the first month; eggs, baby meal, juice and biscuits as early as the second month. Babies were seen 'continuously sucking rabbit leg-bones or a piece of bacon.' Children were often given chewing gum or candies or a bannock between meals. Helm

(1961:29) notes that the men at Lynx Point usually bring a pound or two of candy for the children when returning from the trading post. This heavy consumption of candy and of soft drinks has played havoc with the teeth of Indian children.

## 2.8 Alcohol

The consumption of alcohol, a non-indigenous aspect of the ecological adaptation of the Déné, preceded the first white explorers into the Canadian Northwest. Father Morice (n.d.:162-163) explains that because of the strong competition between rival trading companies at the end of the eighteenth and the first two decades of the nineteenth centuries the traders 'stooped to the vilest means to increase their clientele' and lured the Indians to the trading posts using 'the poisonous beverage' as an attractive bait. In fact, the practice began long before the end of the eighteenth century. As early as February 1772 Hearne (1795:271-272) met with 'a strange Northern Indian leader' and several of his followers who presented him with 'a foot of tobacco' and a 'two-quart keg of brandy, which he intended as a present for the Southern Indians.'

Few of the Northern Indians are fond of spirits, especially those who keep a distance from the Forts: some who are near, and who usually shoot geese for us in the Spring, will drink it at free cost as fast as the Southern Indians, but few of them are ever so imprudent as to buy it.

(Ibid)

The observation that the southern Indians drank more than the northern is supported, at least as far as the women are concerned, by one of Mackenzie's contemporaries who recorded of the Chipewyans: 'Upon the whole the women of this nation are more healthy and robust than the Cree fair sex, which may be greatly assisted by their abstinence from spiritous liquors which the latter use to a shameful excess' (Jenness 1956:23).

Mackenzie (1801:vi) himself gives an example of the duplicity of the traders in supplying alcohol to the Déné:

At an early period of... [the missionaries] intercourse with the savages a custom was introduced of a very excellent tendency, but is now unfortunately discontinued, of not selling any spiritous liquor to the natives. This admirable regulation was for some time observed, with all the respect due to the religion by which it was sanctioned, and whose severest censures followed the violation of it. A painful penance could alone restore the offender to the suspended rites of the sacrament. The casuistry of trade, however, discovered a way to gratify the Indians with their favourite cordial, without incurring the ecclesiastical penalties, by giving instead of selling it to them.

Then legal penalties replaced ecclesiastical and 'the best law in Canada' (Pike 1892:207) forbade a white man to give an Indian any intoxicating drink under threat of a \$200 fine.

Legal penalties proved as ineffective as ecclesiastical. Not only did white men continue to give liquor to the Indians, but the Indians learned to make their own. In 1893 Bishop Bompas complained that miners in the Yukon manufactured

intoxicants and gave them to the Indians with the result that 'demoralization... has occurred among the Indians through not only intoxicants having been given them by the miners but owing to the Indians themselves having acquired a knowledge of the manufacture of the same'.(84).

By 1894 the liquor traffic in the Yukon was 'assuming large proportions' and would have to be dealt with by a strong hand(85). The territory was being ruled by a 'Whiskey Ring' of which McQuestion and Company, traders at Forty Mile, were reportedly at the centre. Five saloons were running and more were expected to open as miners came in for the winter.

The liquor sold to the whites is of good good quality, and retails at 50 cents a drink. It comes in principally from Fort Simpson, on the coast, is packed over the Summit and brought down the river in boats. I hear 3000 gallons have come in during the year just past.

The Indians make out of molasses, sugar, and dried fruit a liquor locally known as "Hoo-chin-oo" and is very like the liquor made at the Cape and styled "Cape Smoke". It is very strong, more like pure alcohol both in appearance and taste.

(Ibid)

The Indians were described as 'a lazy shiftless lot... contented to hang around the mining camps. They suffer much from chest trouble and die young.' Ten years later these Indians in the Yukon were 'getting all the liquor they wanted' from Atlin, B. C.(86).

Another source from which liquor reached the Indians of northwestern Canada was Herschel Island. In 1896



W. C. Bompas, then Bishop of Selkirk, reminded the Minister of the Interior of the fact 'that Herschel Island in British waters on the Arctic coast of the Canadian Dominion' had become a regular American whaling station where probably about twelve large American steamers lay for about nine months of the year with crews of about six hundred<sup>(87)</sup> 'From these vessels large quantities of raw Spirits are traded with the neighbouring Natives, both Esquimaux and Indian to the utter ruin of those races...'

By this time the consumption of alcohol by Indians was <sup>considered</sup> serious enough and harmful enough -- at least by the Administration -- for legislation to be passed with regard to it. In 1906 the government enacted that

No intoxicating liquor or intoxicant shall be manufactured, compounded or made in the Territories, except by special permission of the Governor in Council, nor shall any intoxicating liquor or intoxicant be imported or brought into the Territories from any province of Canada, or elsewhere, or be sold, exchanged, traded or bartered, or had in possession therein, except by special permission in writing of the Commissioner.

(Section 86, Chap. 62, R. S. 1906, N. W. T.)

Legislation like this can remove the liquor but not the demand for it. In such a situation where illegal supplies of liquor are not readily available, substitutes must be found. Among the earliest of these were culinary essences and extracts and household toiletries. The attraction of extracts and essences is that the basis of them is pure alcohol and they are highly

intoxicating. Seven samples of essences seized by the police at Le Pas in 1911 were found to have alcoholic volumes ranging from 20.33 to 33.06 per cent and proof spirits ranging from 35.63 to 57.94<sup>(88)</sup>. Similarly, analysis of cola, grape, lemon, lime, orange and strawberry flavourings and of ginger ale taken from a store at Fort Smith in 1923 revealed alcoholic percentages ranging from 39.74 for grape to 69.38 for lemon<sup>(89)</sup>. Toiletries like Colgate's Lilac Imperial Toilet Water, according to the information on its own container, had an ethyl alcohol content of 73 per cent. Syrup of Figs and Elixir of Senna, according to the bottle labels, contained 6 per cent alcohol<sup>(90)</sup>. The RCMP and others reported that the Indians, Inuit and half breeds in the Territories were drinking these preparations for their alcoholic content. Col. J. Cornwall, President of the Northern Traders' Company in Edmonton, at the end of a ten-weeks' trip to the North, made an 'emphatic protest' to the press 'against the system which allows sales of flavoring extracts to white settlers and Indians'.<sup>(91)</sup> He called it 'the most iniquitous practice he has observed in all his years of connection with the north...'. Two years later W. W. Cory, the Commissioner of the Northwest Territories, by order dated 28 August 1924 banned the importation, manufacture and possession of such preparations as fruit tinctures, vegetable spirits and other extracts and essences<sup>(92)</sup>.

In the early 1930s a new substitute for liquor appeared. Traders reported to the police at Fort Smith that there had been 'an unusual demand for LISTERINE'<sup>(93)</sup>. The police did

not know if Listerine contained alcohol but asked the traders 'to be very careful in the sale of it.' But because Listerine was not included on the prohibited list the Indians and half-breeds were 'sending to various mail order houses outside and getting in whatever quantities they desire [d].' The belief was that Listerine contained at least 15 per cent alcohol<sup>(94)</sup>. Analysis showed it contained approximately 25 per cent<sup>(95)</sup>. The letters from the RCMP at Fort Smith were the 'first suggestion of any misuse of this preparation, which is understood to be designed for use as an antiseptic lotion, wash, gargle, etc.'<sup>(96)</sup>. Rumours reached the RCMP that native people in the Mackenzie district were using other toilet articles for intoxicating purposes, but investigation showed that this was a very isolated practice<sup>(97)</sup>. However there was a 'general demand' throughout the Mackenzie area for Listerine<sup>(99)</sup>. The first concrete evidence of inebriation through drinking Listerine came with the conviction of Pierre Smith of Taltson River.

Col. J. Cornwall, as reported in the Press in 1922, claimed that a number of traders in the North were handling extracts which he described as being 'about 70 per cent alcohol and around 30 per cent poison'<sup>(91)</sup>. 'This has practically resulted in serious damage to the physique of all men in the north who are addicted to the drinking of extracts.' In fact, the drinking of extracts and of essences and toilet preparations does not appear to have been at all widespread or general among the Déné. Nor was the drinking of methyl alcohol and other compounds used to light Primus

stoves, which was a scourge among the Inuit from the later 1920s onwards, ever common among the Indians. Dr Bourget of Fort Resolution wrote in 1933<sup>(100)</sup>,

In my district of Great Slave Lake, the use of primus stoves is not known among the natives; when going into the barren lands they carry enough wood for so many nights and consequently do not need at any time the use of methyl hydrate and canned heat...

On the other hand if the use of these spirits ever becomes known to the natives, for drinking purposes, it would spell ruin among these people. They would simply purchase all they could and drink until blind.

The Medical Officer at Aklavik confirmed that the natives in the Delta drank only a small amount of methyl hydrate from time to time but never enough to be serious 'and as a matter of fact confined to one or two individuals'.<sup>(101)</sup>

The reason for the failure of essences, extracts, toiletries and Primus starter to become generally popular among the Déné was, as Col. Cornwall mentioned, that every Indian was his own brewer<sup>(91)</sup>. The knowledge of brewing that was reported among the Yukon Indians in the 1890s spread rapidly. The sale of beer, even of two per cent beer and cider that were being brought into the Territories and sold by trading post managers, was banned by legislation, though this did not prevent the more unscrupulous traders from bringing in and selling beer illegally in order to attract trade. For example<sup>(102)</sup>,

Mr. Charles Miller, of Toronto, has inquired if he would be permitted to send in a car load of beer to Fort Smith, and the Hudson's Bay Company report that other traders are selling it in the North-west Territories, particularly at Resolution, and ask for a similar privilege, in order that their trade may be protected.

But rather than stock beer, which would bring them into direct conflict with the law, the traders could more safely stock the ingredients with which the Indians could brew their own beer. These ingredients were general everyday domestic items and were not in themselves intoxicating. The police knew that they faced a difficult situation in terms of law enforcement. For example, Inspector J. F. Fletcher of the RCMP reported that in Fort Resolution the Lamson Hubbard Company and Alex Loutit were selling Cream of Malt in their trading stores<sup>(103)</sup>. This preparation was solely used for making beer and instructions for so doing were included in each package. The Inspector wanted its sale stopped.

The "True intent and meaning of the Act" mentioned in Section 101 of the N. W. T. Act is, I take it, to stop the illegal manufacture and sale of intoxicating liquor, and I should feel if a case were brought before me of selling this Cream of Malt that the "true intent and meaning" had been violated and would convict.

But the Inspector might have difficulty if such a hypothetical conviction were appealed. The Chief Analyst of the Department of Health reported<sup>(104)</sup>,



Cream of Malt is prepared from barley malt and appears to have legitimate uses as a food... While this may be used in making beer, the same applies to numerous other commodities. As the preparation itself is non-alcoholic, it is our opinion that Cream of Malt could not be considered as an intoxicant.

So nothing was done, in spite of constant appeals for action from the police. For example<sup>(105)</sup>,

I have said that the Indian will spend his furs for worthless goods at an outpost and no doubt the two larger trading companies will challenge my statement that they handle worthless goods. I refer to dried fruits and other articles used in making home brew. This is rapidly becoming a serious menace to the physical welfare of the Indian and is undermining his vitality to such an extent that some definite combative action is imperative. The brew they make is a vile concoction with concentrated intoxication its most central quality.

At the outposts, beyond supervision of Agent or police, brewing is carried on indiscriminately and not a few pneumonia fatalities can be traced to it each year. The trading companies import large quantities of these ingredients each one afraid to stop in case the hunter goes to the other. When I say that from careful enquiry I am able to estimate an importation into one Fort of 10,000 pounds of dried fruit in one year, it must be realized that the time has come for action. This is a matter in which we must look to the Trading Companies for co-operation and I think if given an opportunity to take the matter up with the heads of the two large companies in Winnipeg, some beneficial results might follow.

But the companies refused to co-operate. The sale of malt and yeast and other ingredients for making beer continued and the Indian became more and more addicted. When the fur

market crashed after the Second World War, and the ecology and economy of the Déné collapsed into a state of poverty, social assistance and welfare, drink was a means of temporary escape from the troubles of life. Fresh appeals were made to the Administration for action. The Medical Officer at Fort Simpson, for example, wrote to the Deputy Commissioner of the Northwest Territories in 1947 asking for help 'in stamping out the sale of Malt and yeast cakes to Indians of this locality, by the Traders of the various posts in this Agency' (106).

Five years ago Malt was first introduced by two of the Traders here, starting with only two cases of Malt per year. The Indians gradually became addicted to its use in making Brew, and now all the traders are getting in large quantities -- as much as sixty and more cases to a Trader, each case holding 12 tins which average \$2.75 per tin. The result has been that Indians who are practically destitute, scrounge enough money to buy a tin of Malt which with the present quick-acting Yeast makes a Brew in from 24 to 48 hours. This is not only hurting their health and decreasing their energy for trapping, but robbing their families of other necessities and will gradually beggar the whole Band. I have talked to all the Traders about stopping the sale of Malt, but their argument is that -- "If they don't sell it to the Indian he will take his fur elsewhere and another will reap the benefit of the sale or trade." They will not trust the other fellow to keep the bargain if you get them all to make a Gentleman's agreement to stop the sale of Malt entirely...

In 1947 a magistrate from Yellowknife went on a tour of the Mackenzie area to make enquiries about 'the use of malt and yeast for making brew by the native population' (107).

At Providence he found that little of these materials were used by the Indians in the vicinity and there did not appear to be any attempt by the traders to introduce them. But at Fort Simpson and the trading posts to the North the situation was different. The Hudson's Bay Company had not stocked any malt until 1941 when approximately two hundred packages were brought in. In 1942 this amount was doubled. None was imported in 1943 but the following year the shipment began again and the amounts increased annually 'until at the present time they have reached alarming proportions.' It seems that competition between the traders at Fort Simpson was keen. The Hudson's Bay Company manager appears to have been the first to import malt and the other traders followed. The traders did not trust one another but each appeared anxious to co-operate. At Wrigley the Hudson's Bay Company seemed to have inaugurated a similar competition using the same lure to attract custom.

All individual licensees were agreed that the use of malt, dried fruit, and other similar materials for the making of home brew by the Indians, was having a definite effect on their living conditions. As long as the Indians have a dollar left with which to buy materials for making liquor, they hang around the settlement and individually become to some extent public charges.

Brewing had worse consequences than that. As the Officer-in-Charge of the RCMP Detachment at Fort Simpson reported in 1947, the average Indian was 'practically destitute at all times'

unless the fur yield was plentiful and that had not been the case during the past few years. But if the Indian heard that a friend had a 'brew on' he would not visit his trap-line during the season but hang around the settlement in the hope of being invited to the party whenever it was held.

'This procedure, of course, reduces the individual's family practically to starvation' (108). Sgt. G. Abraham of the RCMP reported from Fort Smith (109),

In my opinion the Natives in the Mackenzie area of the Northwest Territories are steadily deteriorating. It is believed that one of the factors contributing to this situation is their habit of drinking home brews, and any liquid preparations containing alcohol that they can lay their hands on. Their craving and use of these intoxicants is undoubtedly, to a certain extent, detrimental to their health and also to their welfare, as it produces a tendency to neglect themselves and family. It is also believed that this situation has been encouraged by unscrupulous traders who, for their own gain, sell them various commodities, including malt and yeast, well knowing that such articles will be used in the manufacture of home brew.

At Fort Simpson efforts were made to work out a voluntary arrangement whereby the traders in the area would not sell these commodities in excessive quantities to Indians and half-breeds (110). These efforts met with only limited success. Many of the traders were willing to co-operate in controlling this traffic in the interest of Indian welfare but did not wish to lose business to other traders. Here was an apparent weakness and the government tried to exploit

it. They placed the responsibility for controlling the sale of commodities that could be used for making home brew and of preparations that contained alcohol as a preservative squarely on the traders themselves and threatened that any failure on the part of a trader would be 'noted for consideration when he applies for renewal of his trading license',<sup>(111)</sup>. There is no indication that this ruse ever worked. In fact, the Director of Northern Administration admitted a few years later that because most of the traders were involved in stocking home brew ingredients 'as a means of drawing business' the 'cutting off of trading licenses generally would, of course, be out of the question',<sup>(112)</sup>. The RCMP even knew that the role of the trader was often much more than just a retailer of home brew ingredients<sup>(113)</sup>.

Evidence has accumulated from RCMP investigations in different settlements in the Mackenzie district that a number of traders were bringing in large quantities of malt, hops, pain-killer and other preparations containing alcohol, that they were not only selling these to the Indians but themselves brewing beer, organizing 'brew parties' and selling home brewed beer in Indian camps.

Unfortunately it was 'difficult to get a Native or Indian to come out straightforward and state that he did see or did have some home-brewed intoxicant in such and such a place.' So no information of value could be obtained.

A gradual change in the attitude of the Administration came about during the years after the Second World War. It was conceded that 'the making of home brew among Indians is general',<sup>(114)</sup>, and furthermore that the native would 'always



make his own brew<sup>(115)</sup>. So the Indian Act was amended to allow 'partial consumption' of beer when permitted by local provincial authorities.

It would appear therefore that the Federal legislators who were responsible for the amended Indian Act had in mind a partial relaxation of the liquor laws in favour of the native populations. Perhaps World War II was in part responsible, since many Indians from all over the Dominion joined in the Service of their country and once overseas were no longer subject to the laws governing consumption of liquor in Canada.

(Ibid)

Section 95 of the Indian Act, passed on 17 May 1951, permitted Indians under certain circumstances to consume intoxicants in licensed premises such as taverns and cocktail lounges in accordance with provincial law, but the sale, manufacture and possession of intoxicants on reserves was still prohibited, and Indians were not allowed to have 'packaged goods' whether on or off the reserve<sup>(116)</sup>. This would give Indians in the Northwest access to the cocktail lounge and beer parlour at Yellowknife and to the beer parlour at Hay River. The authority of Parliament would be required for any further relaxation.

It was not a major concession but it represented the thin end of a wedge that was eventually hammered deep into the territorial Liquor Ordinance till the laws regarding the Indian's right to drink were split wide open. In the summer of 1952 it was decided to ask the Northwest Territories Council about permission for the native people 'to consume intoxicating beverages' as was being done in British Columbia. This was

made public in Commissioner H. A. Young's opening address to the Council on 2 July 1952 in which he said that the Council would be asked 'to voice an opinion on certain matters not requiring legislation' one of which concerned 'the consumption of intoxicants by Indians and Eskimos'.<sup>(117)</sup>

After two years of debate and stalled decisions a report was made to the Governor General in Council which admitted that 'both Indians and Eskimos in the Territories at the present time manufacture and consume intoxicants in accordance with habit and custom of many years standing and it is impossible, except in the immediate vicinity of settlements where there are police detachments to enforce the present prohibition against the use of intoxicants against them'.<sup>(118)</sup> The Council of the Northwest Territories, recognizing this fact, considered it desirable that both Indians and Eskimos should be given the legal right to consume liquor in the Territories, 'granting them the same privileges in respect of the use of intoxicants as are enjoyed by the other residents of the Territories under the Territorial Liquor Ordinance.' The Governor General was asked to declare by proclamation that the prohibitions against the Indians would not apply after 31 May 1955, and in January 1955 the Commissioner would present to the Northwest Territories Council an amendment to the Territorial Liquor Ordinance 'permitting both Indians and Eskimos in the Territories to possess and consume intoxicants in the same manner as other residents...'

Legal permission to drink did not put an end to home brewing. The practice went back two or three generations,

drinking in general a couple of hundred years. The consumption of alcohol had become part of the cultural system of the Déné. As Vanstone (1963:90) notes not just of the Snowdrift but of other Indians, drinking assumed an important place in the total cultural pattern and the drinking pattern itself was often complex and even ritualistic or at least formalized. Brew party procedure and other aspects of drinking behaviour became subjects for research and analysis by anthropologists (Honigmann and Honigmann 1945; Honigmann 1946:111; 1949:107-108; Helm 1961:102-107; Helm and Lurie 1961:20-21). 'Brew drinking always occurs in a group; there is no solitary drinking,' writes Helm (1961:103) and she proceeds to give a detailed description of a typical brew party, extensively quoting from the field notes of her research associate, Teresa Carterette. Brew parties could unfortunately deteriorate into violent brawls and outbursts of violence. At Lac la Martre in 1958, for example, drinking was almost continuous from the beginning of June to the 19th, during which time three major brew parties took place at which there were several fights and damage to property<sup>(119)</sup>. Eventually the RCMP had to be called in to restore order and arrest the leading offenders.

All Indian drinking behaviour has this undercurrent of violence. Within two decades of its becoming legal alcohol became 'the greatest killer of the Indian people.'<sup>(120)</sup> Statistics have related liquor consumption with murder, rape, theft, disease, child neglect, family breakdown and marital problems<sup>(121)</sup>. Abuse of alcohol, both home-brew

and that obtained legally through liquor outlets established in the major population centres in the Northwest Territories, became the most important social issue in the North in the 1960s. In many of these centres 'crime could be directly related to the abuse of alcohol' (122) By 1970 the Northern Health Services were concerned enough to include a section on alcoholism in their annual report on health conditions in the North:

This is an increasing problem in the Territories and while in many respects it is a social problem the effect on our mortality and morbidity statistics is so great that it is also a major health problem which is increasing in importance every year. 40-50% of deaths due to violence and accidents are usually attributable to over-indulgence in alcohol, and an increasing amount of non-fatal accidents are also due to this cause. A fair percentage of our morbidity in infants and children is related to alcohol problems in families with subsequent neglect of children, but this is very difficult to prove.

(Canada, Dept. Nat. Health and Welf. 1970)

Alcohol abuse, whatever its causes, has a direct and an indirect effect on the nutritional state of many native peoples, as Dr Schaefer explained to an audience in Whitehorse in June 1975 (123). Any large intake of alcohol, which is mostly carbohydrate, results in reduced appetite, with a consequent lower intake of food, especially nutritious food. 'The direct toxic effect of brain, nervous system and liver damage coupled with the poor food choice is compounded by the indirect effect of lack of income and dereliction of

familial duties, all of which increase the likelihood [sic] of nutritional deficiencies not only for the drinker but for his family as well.'

Against this background the Territorial government was accused of appearing 'outwardly passive'.<sup>(121)</sup> Nancy Cooper of the Addiction Research Foundation of Ontario reported:

While consumption and abuse figures spiralled, the NWT liquor system was busy appointing a wine-tasting committee to import better wines for northerners. The government's uniform liquor pricing policy, where a bottle of beer costs the same in Yellowknife as in the isolated community of Cambridge Bay, was interpreted as a form of liquor subsidization and looked bad when stacked against essentials like food, fuel and shelter, which cost much more in isolated communities than in northern urban centres.

(Ibid)

The Déné eventually took matters into their own hands. A change in the liquor laws in the Northwest Territories made it possible for the first time for each settlement to set its own liquor policy. In August 1976 Rae-Edzo became the first Canadian community in decades to impose a total ban on alcohol<sup>(124)</sup>. Prohibition went into effect on 20 August and applied to all land within fifteen miles of the Rae hamlet office. In July 72 per cent of the eligible voters in the community had approved the move to prohibition. Thereafter prohibition swept the Northwest Territories when within a year some fifteen communities across the Arctic and along the Mackenzie, including Lac la Martre, Snowdrift, Norman, Rae



Lakes, Good Hope and Wrigley, Franklin and McPherson, all voted on whether to ban or ration drink.

Prohibition, though apparently welcomed by the majority of Indians in the Northwest Territories, can at best be only a temporary measure. It does not solve the problem for it does not tackle its causes. They remain and they are both numerous and varied, as a brief sample will show. The pioneer image of the white man in the Arctic and the social problems of change in the natives were together blamed on giving Canada's North the highest per capita consumption of alcohol in the country<sup>(125)</sup>. In the Yukon this was 4.5 gallons per person per year, and in the Northwest Territories 4.34 gallons. In Ontario the rate was 2.4 gallons<sup>(121)</sup>. In the native population 'loss of a sound economic base, loss of self esteem and acculturation' were all considered important factors<sup>(123)</sup>. The Steering Committee of the Indian Communities Alcohol Project (1976) blamed the Mackenzie highway and pipeline, large influxes of white people, the depletion of game, low fur prices, the loss of control over the land and the educational system 'which has alienated parents and children.' 'Native people as a group in the Northwest Territories,' comments News of the North<sup>(120)</sup>, 'are trying to cope with confusion, frustration, a loss of self-respect and a lack of purpose.'

Despite the variety of circumstances which produce alcohol problems, a common intermediary symptom appears to be evident: stress in its various emotional, psychological and spiritual aspects. Some of the major producers of stress are: identification confusion, inter-personal relations and

communication, personal development (creativity, productivity, satisfying activity, etc.) and spiritual or psychic concerns (moral values, self-worth, personal philosophy, etc.)

(Steering Committee 1976:13)

Action is necessary to improve the circumstances that create stress for the whole group. Among the Déné this includes a broad and comprehensive approach to economic and community development, as well as cultural revitalization. 'In addition, it is also necessary to use approaches oriented to the individual Native person... since it is at the individual level that the problems manifest themselves in concrete form' (Ibid:14).

## 2.9 Notes and references

- (1) Interview with Mr. Harry Garbitt, Moberley Lake, B. C., by Isabel Loggie, Fairview, Alberta, June 1956 (Glenbow-Alberta Institute Archives, Ref. D971.23 .L832 f.32).
- (2) Schaefer, O.: 'Nutrition base and nutritional habits of northern populations.' Preliminary draft of unpublished report (copy from Dr Schaefer to the author).
- (3) The Drum, 17 July 1975, p.13.
- (4) Letter from Const. J. W. McCormick, RCMP, Dawson, to Officer Commanding, RCMP, Dawson, d. 1 August 1924 (RG85, Vol. 609, File 2657, Pt. 1).
- (5) The account here given of early contact between British and French fur traders and the Indians of northwestern Canada is based largely on Rich (1967). Direct quotations are acknowledged in the text.
- (6) Report of Chief Factor James Anderson of the Hudson's Bay Company in the Mackenzie River District, Outfits 1851 to 1857 (Glenbow-Alberta Institute Archives, Godsell Papers, Ref. A .G589J, Box No 14, Folder 108).

- (7) Draft of article on Land Use Possibilities in Mackenzie District, N. W. T.: J. L. Robinson, May 1945 (RG85, Vol. 961, File 14885, Pt. 1).
- (8) RCMP Report re Alaska Indians entering the Yukon Territory to hunt and trap: Rampart House Detachment, d. 9 April 1929 (RG85, Vol. 609, File 2657, Pt. 1)
- (9) Revillon Frères accounts for the spring of 1921 show that the following food items were shipped into the Mackenzie area that year:
 

Flour	Corn meal	Rolled oats	Beans
Sugar	Rice	Salt	Dried potatoes
Dried onions	Dried	Canned	Canned beef
Peaches	vegetables	tomatoes	Tapioca
(canned)	Barley	Split peas	Molasses
Macaroni	Raspberries	Syrup	Hops
Cocoa	(canned)	Sardines	Ginger
Egg powder	Curry powder	Allspice	Sage
Mustard	Nutmeg	Black pepper	Apricots
Cream of	Currants	Raisins	Apples
Tartar	Soups	Yeast	Pickles
Dried peaches	Tongue	Mutton	Hard tack
Prunes	Tea	Coffee	Buckwheat
Sago	Arrowroot	Baking	Cheese
Jam	biscuits	chocolate	Sauce
Cod	Klim	Salmon	Vinegar
Lemon	Lime Juice	Vanilla	
extract		extract	
- (10) Beaver Report for 1930: J. F. Moran (Glenbow-Alberta Institute Archives, Godsell Papers, Box No 14, Folder 108).
- (11) Letter from A. L. Sawle, Asst. General Manager, Northern Traders Ltd., to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 28 May 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1)
- (12) Medical Officer's Annual Report, Fort Resolution, 1947-48: Dr J. L. Mulvihill, Medical Officer (RG85, Vol. 1112, File 590-8, Pt. 2).
- (13) "A study of the food habits and supplies in the Northwest Territories": W. Hinto, Nutrition Services, Department of Pensions and National Health, d. February 1944 (RG85, Vol. 98, File 252-1-2, Pt. 1).
- (14) Draft of paper on 'Better Bannock' by M. Lock and L. B. Pett, Nutrition Division, Department of National Health and Welfare. Submitted to J. G. Wright, Chief, Northern Administration Branch, Department of Resources and Development 17 July 1952 (RG85, Vol. 480, File 252-1-2, Pt. 3). Published in Journal of the Canadian Dietetic Association, December 1952.

- (15) Letter from Dr L. J. Mulvihill, Indian Agent, Fort Resolution, to R. A. Hoey, Director, Indian Affairs Branch, d. 17 September 1947 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (16) Honigmann (1946:110) here has 'bacon' with butter. This is taken to be a mistake for 'bannock' and corrected accordingly.
- (17) Report on Summer School, Lac la Martre, 1957: J. Ryan, Welfare Teacher (RG85, Vol. 1349, File 1000/185, Pt.1).
- (18) Letter from P. V. Egan, Community Teacher, Jean Marie River, to Education Division, Northern Administration Branch, d. 5 November 1965 (RG85, Vol. 1416, File 251-1-2, Pt. 4).
- (19) Welfare Principal's Monthly Report, Fort Resolution, December 1956: E. J. McCabe, Principal (RG85, Vol. 1263, File 1000/101, Pt. 1).
- (20) But foresighted providence was not always well rewarded and therefore not reinforced. The Welfare Teacher at Fort McPherson reports how one Indian from a nearby camp 'always tries to have supplies on hand for six months with the result that he winds up supporting some of the less provident.' See Ref No 27 below.
- (21) Welfare Teacher's Monthly Report, Fort Resolution, February 1955 (RG85, Vol. 1263, File 1000/101, Pt. 1).
- (22) Welfare Teacher's Monthly Report, Fort Good Hope, January 1956: V. Douglas, Welfare Teacher (RG85, Vol. 1263, File 1000/116, Pt. 1).
- (23) Letter from A. H. Markham, Regional Director, District of Mackenzie, to Superintendent, Yellowknife Indian Agency, d. 24 November 1965 (RG10, Vol. 6926, File 139/29-1, Pt. 1).
- (24) Report re Native Conditions, Fort Good Hope: Const. D. A. Coleman, RCMP, d. 1 September 1949 (RG85 Vol. 1263, File 1000/116, Pt. 1).
- (25) Speech by the Hon. Jean Chrétien, Minister of Indian Affairs and Northern Development, to the Yellowknife Board of Trade, 10 November 1969 (Glenbow-Alberta Institute Archives, Ref. D970.5 .C212 f.1).
- (26) RCMP Report re Game Conditions, Providence, NWT, License Year 1958-59: Const. C. M. Toman, Officer-in-Charge, d. 13 July 1959 (RG85, Vol. 1341, File 1000/110, Pt. 1).



- (27) Welfare Teacher's Monthly Report, Fort McPherson, May 1955: F. Foss, Welfare Teacher (RG85, Vol. 1264, File 1000/118, Pt. 2).
- (28) Letter from H. J. Moberley, Justice of the Peace, Fort Vermilion, to D. Laird, Lieutenant Governor of Northwest Territories, d. 23 May 1880 (RG10, Vol. 3708, File 19502, Pt. 1)
- (29) Letter from W. C. Bompas, Bishop of Athabasca, to J. A. Macdonald, Premier and Minister of the Interior, d. 27 September 1880 (RG10, Vol. 3708, File 19502, Pt. 1).
- (30) Letter from the Office of the Deputy Superintendent General of Indian Affairs d. 21 January 1880 (RG10, Vol. 3703, File 17680).
- (31) Letter from E. J. Galt, Assistant Indian Commissioner, to all Indian Agents, d. 21 June 1884 (RG10, Vol. 3752, File 30437).
- (32) Letter from R. Young, Bishop of Athabasca, to The Editor, The Evangelical Churchman, 3 May 1888 (RG10, Vol. 3708, File 19502, Pt. 1).
- (33) Letter from the Synod of the Anglican Church in Athabasca Diocese to the Minister of the Interior, d. 6 July 1888 (RG10, Vol. 3708, File 19502, Pt. 1).
- (34) Letter from Rev. J. Gough Brick, Indian Agent, Peace River District, to L. Vankoughnet, Deputy Superintendent of Indian Affairs, d. 7 May 1888 (RG10, Vol. 3708, File 19502, Pt. 1).
- (35) Letter from W. Arnut, Secretary, Hudson's Bay House, London, to D. A. Smith, M. P., Montreal, d. 15 May 1888 (RG10, Vol. 3708, File 19502, Pt. 1).
- (36) Draft of letter to Dr W. C. Bompas, Bishop of Mackenzie River, d. September 1889 (RG10, Vol. 3708, File 19502, Pt. 1).
- (37) Winnipeg Free Press, 10 September 1889.
- (38) Letter from J. Wrigley, Commissioner of the Hudson's Bay Company, to L. Vankoughnet, Deputy Superintendent General of Indian Affairs, d. 30 September 1889 (RG10, Vol. 3708, File 19502, Pt. 1).
- (39) Ottawa Citizen, 19 September 1889.
- (40) Report of a Committee of the Privy Council, d. 3 February 1890 (RG10, Vol. 3708, File 19502, Pt. 1).



- (41) Memo from L. Vankoughnet, Deputy Minister of Indian Affairs, to E. Dewdney, Superintendent General of Indian Affairs, d. 22 February 1890 (RG10, Vol. 3708, File 19502, Pt. 1).
- (42) Draft memo from E. Dewdney, Superintendent General of Indian Affairs, d. 28 May 1890 (RG10, Vol. 3708, File 19502, Pt. 1).
- (43) Letter from Deputy Superintendent General of Indian Affairs to C. C. Chipman, Commissioner of the Hudson's Bay Company, d. 23 September 1897 (RG10, Vol. 3708, File 19502, Pt. 1).
- (44) Letter from A. E. Forget, Indian Commissioner, Winnipeg, to the Secretary, Indian Department, d. 20 November 1897 (RG10, Vol. 3708, File 19502, Pt. 3).
- (45) Memo from D. C. Scott, Accountant, Department of Indian Affairs, to F. Pedley, Deputy Superintendent General of Indian Affairs, d. 29 May 1905 (RG10, Vol. 3708, File 19502, Pt. 3).
- (46) Letter from C. C. Chipman, Commissioner of the Hudson's Bay Company, to the Secretary, Department of Indian Affairs, d. 11 July 1905 (RG10, Vol. 3708, File 19502, Pt. 3).
- (47) Letter from F. Pedley, Deputy Superintendent General of Indian Affairs, to C. C. Chipman, Commissioner of the Hudson's Bay Company, d. 27 November 1905 (RG10, Vol. 3708, File 19502, Pt. 3).
- (48) Memo for the Accountant, Department of Indian Affairs, d. 25 November 1905 (Signature illegible) (RG10, Vol. 3708, File 19502, Pt. 3).
- (49) Illustrated report on the territory covered by Treaty No. 8: H. H. Bury, 1913 (RG10, Vol. 4095, File 600552).
- (50) Memo from E. C. Parker, Inspector of Indian Agencies, to D. C. Scott, Accountant, Department of Indian Affairs, d. 18 May 1917 (RG10, Vol. 3708, File 19502, Pt. 3).
- (51) Hudson's Bay Company accounts for rations issued to sick and destitute Indians, Fort Resolution, d. 25 August 1928 (RG85, Vol. 792, File 6296, Pt. 1).
- (52) Hudson's Bay Company accounts for rations issued to sick and destitute Indians, Fort Resolution, d. 30 April 1929 (RG85, Vol. 792, File 6296, Pt. 1).
- (53) Letter from G. A. Jeckell, Comptroller, Yukon Territory, to H. Hereford, Commissioner, Dominion Unemployment Relief, Department of Labour, d. 24 November 1932 (RG85 Vol. 809, File 6792).

- (54) Report of Mackenzie District Inspection: M. Christianson, Inspector of Indian Agencies, Calgary, d. 18 August 1936 (RG85, Vol. 873, File 8752).
- (55) Letter from J. M. Morrow, Medical Officer, Fort Smith, to J. L. Turner, Acting Chairman, Dominion Lands Board, d. 14 April 1934 (RG85, Vol. 831, File 7320, Pt. 1).
- (56) Copy invoice for destitute rations issued per order of Medical Health Officer: Hudson's Bay Company, Fort Smith, d. 31 July 1940 (RG85, Vol. 921, File 11455).
- (57) List of rations supplied to destitute widows in the Northwest Territories. Prepared by Dr H. W. Lewis, Department of National Health and Welfare, 24 March 1947 (RG85, Vol. 98, File 252-1-2, Pt. 1).
- (58) Letter from Dr P. E. Moore, Director, Indian Health Services, to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 12 April 1947 (RG85, Vol. 98, File 252-1-2, Pt. 1).
- (59) Minutes of the First Meeting of the Interdepartmental Committee on Relief and Tuberculosis Rehabilitation Rations, 22 February 1956 (RG85, Vol. 464, File 1003-1-8).
- (60) Minutes of the Second Meeting of the Interdepartmental Committee on Relief and Tuberculosis Rehabilitation Rations, 11 June 1956 (RG85, Vol. 464, File 1003-1-8).
- (61) Letter from Dr L. E. Pett, Chief, Nutrition Division, Department of National Health and Welfare, to W. G. Brown, Chief, Territorial Division, Northern Administration and Lands Branch, d. 20 June 1956 (RG85, Vol. 464, File 1003-1-8).
- (62) Inspection of Mackenzie River District: anonymous report, 1941 (RG10, Vol. 4094, File 600624).
- (63) Draft of article on Land Use Possibilities in Mackenzie District, N. W. T.: J. L. Robinson, May 1945 (RG85, Vol. 961, File 14885, Pt. 1).
- (64) Report on the natural resources of the Mackenzie District: F. H. Kitto, Department of the Interior, 1920 (RG10, Vol. 4092, File 548036).
- (65) Report on Forty Mile Band of Indians: J. Hawksley, Indian Superintendent, d. 29 March 1917 (RG10, Vol. 4081, File 478698).
- (66) Medical Officer's Report, Fort Resolution: C. Bourget, Medical Officer, d. 17 August 1934 (RG85, Vol. 809, File 6792).

- (67) Indian Agent's Monthly Report, Fort Resolution, May 1939: J. H. Riopel, (RG85, Vol. 915, File 11031, Pt. 1).
- (68) Indian Agent's Monthly Report, Fort Resolution, September 1939: J. H. Riopel (RG85, Vol. 915, File 11031, Pt. 1).
- (69) Letter from L. D. Livingstone, Medical Officer, Aklavik, to R. A. Gibson, Director, Lands, Parks and Forests, Department of Mines and Resources, d. 1 October 1942 (RG85, Vol. 952, File 13205)
- (70) Letter from L. D. Livingstone, Medical Officer, Aklavik, to R. A. Gibson, Director, Lands, Parks and Forests, Department of Mines and Resources, d. 3 March 1943 (RG85, Vol. 952, File 13205).
- (71) Survey of Native conditions, Mackenzie Basin, Western Arctic, Northwest Territories: L. C. Hunter, Indian Agent, Fort Norman, d. 22 April 1948 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (72) Welfare Report, Hay River, for quarter ending 30 June 1950: W. A. Bowerman, Welfare Teacher (RG85, Vol. 1341, File 1000/100, Pt. 3).
- (73) Welfare Report, Hay River, January 1951: W. A. Bowerman, Welfare Teacher (RG85, Vol. 1040, File 21755, Pt. 1).
- (74) Welfare Report, Fort Simpson, August 1952: T. R. Bleiler, Welfare Teacher (RG85, Vol. 1040, File 21755, Pt. 1).
- (75) Memo from F. Frazer, Arctic Division, Northern Administration and Lands Branch, to the Deputy Minister of Northern Affairs and National Resources, d. 10 February 1955 (RG85, Vol. 1274, File 251-1-4, Pt. 1).
- (76) Memo from F. J. G. Cunningham, Deputy Commissioner of the Northwest Territories, to F. Frazer, Acting Director, Northern Administration and Lands Branch, d. 27 January 1955 (RG85, Vol. 1274, File 251-1-4, Pt. 1).
- (77) Welfare Report, Fort McPherson, May 1955: F. J. Foss, Welfare Teacher (RG85, Vol. 1264, File 1000/118, Pt. 2).
- (78) Letter from F. J. Foss, Welfare Teacher, Fort McPherson, to J. V. Jacobson, Superintendent of Education, d. 30 January 1955 (RG85, Vol. 1264, File 1000/118, Pt. 2).
- (79) Letter from H. A. Proctor, Edmonton, to Dr P. E. Moore, Indian Health Services, d. 8 March 1949 (RG85, Vol. 1263, File 1000/116, Pt. 1).

- (80) Welfare Teacher's Monthly Report, Fort Good Hope, June 1957: G. H. Pelletier, Welfare Teacher (RG85, Vol. 1263, File 1000/116, Pt. 1)
- (81) Medical Officer's Report, Fort Resolution: C. Bourget, Medical Officer, d. 29 August 1933 (RG85, Vol. 809, File 6792).
- (82) Medical Officer's Report, Fort Resolution: C. Bourget, Medical Officer, d. 23 September 1930 (RG85, Vol. 809, File 6792).
- (83) Letter from E. L. Stone, Director of Medical Services, Department of Indian Affairs, to O. S. Finnie, Director, Northwest Territories and Yukon Branch, 24 December 1931 (RG85, Vol. 831, File 7320, Pt. 1).
- (84) Letter from W. C. Bompas, Bishop of Selkirk, Chief Commissioner of Indian Affairs, d. 9 May 1893 (RG10, Vol. 3906, File 105378).
- (85) Report of a visit to the Yukon country: Inspector Constantine, RNWMP, 1894 (RG10, Vol. 3906, File 105378).
- (86) Letter from Assistant Commissioner S. T. Wood, Officer Commanding, RNWMP, Yukon Territory, to The Comptroller, RNWMP, Ottawa, d. 11 November 1905 (RG10, Vol. 3906, File 105378)
- (87) Letter from W. C. Bompas, Bishop of Selkirk, to the Minister of the Interior, d. 18 June 1896 (RG10, Vol. 3906, File 105378).
- (88) Letter from A. McGill, Chief Analyst, Laboratory of the Inland Revenue Department, to W. J. Gerald, Deputy Minister of Inland Revenue, d. 13 October 1911 (RG85, Vol. 1112, File 590-8, Pt. 1)
- (89) Report of analysis: S. E. Wright, Assistant Chemist, d. 17 October 1923 (RG85, Vol. 1112, File 590-8, Pt.1).
- (90) Letter from Inspector G. F. Fletcher, Officer Commanding, Great Slave Lake Sub-Division, RCMP, to Officer Commanding 'G' Division, Ottawa, d. 14 February 1924 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (91) Clipping from the Edmonton Journal, August 1922 (RG85, Vol. 1112, File 590-8, Pt 1).
- (92) Memo from the Chief Dominion Analyst re Canned Heat, d. 8 April 1927 (RG85, Vol. 1112, File 590-8, Pt. 1)
- (93) Letter from Const. W. T. James, Officer-in-Charge, Fort Smith Detachment, RCMP, to Officer Commanding Fort Smith Sub-Division, d. 7 December 1932 (RG85, Vol. 1112, File 590-8, Pt. 1)



- (94) Letter from Assistant Superintendent T. H. Irvine, Officer Commanding 'G' Division, RCMP, to Officer Commanding, Fort Smith Sub-Division, d. 22 December 1932 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (95) Letter from J.J. Heagerty, Chief Executive Assistant, Department of Pensions and National Health, to H. E. Hume, Chairman, Dominion Lands Board, Department of the Interior, d. 7 February 1933 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (96) Letter from J. J. Heagerty, Chief Executive Assistant, Department of Pensions and National Health, to H. E. Hume, Chairman, Dominion Lands Board, Department of the Interior, d. 5 January 1933 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (97) Following a report that half-breeds in Resolution were buying and drinking Williams' Aqua Velva, Colgate's Shaving Lotion, and Carson's lavender water (Ref. No. 98 below) investigations at Forts Simpson, Smith, Good Hope, Providence, Liard, Wrigley, Rae, Hay River and Aklavik showed that there was no demand for these products except in small quantities by the white residents and none at all by Indians. Even in Resolution toilet articles were not sold to 'creaty' Indians.
- (98) Letter from Corporal R. A. Williams, Officer-in-Charge, Resolution Detachment, RCMP, to Officer Commanding, Fort Smith Sub-Division, d. 3 December 1932 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (99) Memo from J. L. Turner, Assistant Chairman, Dominion Lands Board, to H. H. Rowatt, Deputy Minister of the Interior, d. & March 1933 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (100) Letter from Dr C. Bourget, Indian Agent, Fort Resolution, to H. E. Hume, Chairman, Dominion Lands Board, d. 23 September 1933 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (101) Letter from Dr J. A. Urquhart, Medical Officer, Aklavik, to H. E. Hume, Chairman, Dominion Lands Board, d. 15 November 1933 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (102) Memo from O. S. Finnie, Director, Northwest Territories Office, to W. W. Cory, Commissioner of the Northwest Territories, d. 21 April 1922 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (103) Letter from Inspector G. F. Fletcher, Officer Commanding, Great Slave Lake Sub-Division, RCMP, to Officer Commanding 'G' Division, Ottawa, d. 14 February 1923 (RG85, Vol. 1112, File 590-8, Pt. 1).



- (104) Letter from H. M. Lancaster, Chief Analyst, Department of Health, to O. S. Finnie, Director, Northwest Territories Office, d. 10 August 1923 (RG85 Vol. 1112, File 590-8, Pt. 1).
- (105) Report of inspection trip in the Mackenzie district: C. C. Parker, Inspector of Indian Agencies, [December 1928 (RG85, Vol. 792, File 6327).
- (106) Letter from Dr W. A. M. Truesdell, Medical Officer, Fort Simpson, to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 10 March 1947 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (107) Letter from F. Frazer, Stipendiary Magistrate, Yellowknife, to R. A. Gibson, Director, Lands, Parks and Forests Branch, d. 14 July 1947 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (108) Letter from Const. R. H. Swift, Officer-in-Charge, Fort Simpson Detachment, RCMP, to Officer Commanding, Fort Smith Sub-Division, d. 25 July 1947 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (109) Letter from Sgt. G. Abraham, Fort Smith Sub-Division, RCMP, to Officer Commanding, 'G' Division, Ottawa, d. 26 February 1948 (RG85, Vol. 1112, File 590-8, Pt. 2).
- (110) Minutes of a special meeting of the Northwest Territories Council, 26 November 1947 (RG85, Vol. 1112, File 590-8, Pt. 2)
- (111) Circular re Sale of Malt and Yeast and Preparations which contain Alcohol to Indians, Eskimos and Half-Breeds: R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 22 December 1947 (RG85, Vol. 1112, File 590-8, Pt. 2).
- (112) Letter from G. E. B. Sinclair, Director, Northern Administration and Lands Branch, to the Commissioner of the RCMP, Ottawa, d. 3 January 1952 (RG85, Vol. 1112, File 590-8, Pt. 2).
- (113) Report from Const. G. R. Stewart, Officer-in-Charge, Resolution Detachment, RCMP, d. 8 April 1948 (RG85, Vol. 1112, File 590-8, Pt. 2).
- (114) Letter from Corporal H. H. Aimé, Officer-in-Charge, Liard Detachment, RCMP, to Inspector W. J. Fitzsimmons, Officer Commanding, Fort Smith Sub-Division, d. 30 November 1951 (RG85, Vol. 1112, File 590-8, Pt. 2).
- (115) Letter from L. A. C. O. Hunt, Sub-District Administrator, Aklavik, to G. E. B. Sinclair, Director, Northern Administration and Lands Branch, d. 8 February 1952 (RG85, Vol. 1112, File 590-8, Pt. 2).

- (116) Draft report on liquor for Indians in licensed premises: Northern Administration and Lands Branch, d. 22 November 1951 (RG85, Vol. 1260, File 590-6, Pt. 1).
- (117) News of the North, 4 July 1952, p. 1.
- (118) Report to the Governor General in Council, signed by the Minister of Northern Affairs and National Resources and the Minister of Citizenship and Immigration October 1954 (RG85, Vol. 1112, File 590-5, Pt. 1).
- (119) Special report on brew parties, Lac la Martre: J. Ryan, Welfare Teacher, d. 19 June 1958 (RG85, Vol. 1349, File 1000/185, Pt. 1).
- (120) News of the North, 19 September 1974, p. 20.
- (121) The Hub, 27 April 1977, p. 6.
- (122) Minutes of the First Meeting of Social Adjustment Committee, 7 February 1962 (RG85, Vol. 1911, File NR4/258, Pt. 1)
- (123) Yukon News, 4 June 1975, p. 19.
- (124) News of the North, 18 August 1976, p. 10.
- (125) The Drum, 26 September 1974, p. 6.

## Chapter Three

### Technological factors

#### 3.1 Introduction

Man's exploitation of his environment for the energy and material resources needed to sustain life is accomplished with the aid of a wide and ever widening array of artifacts, 'the material means by which man contrives to influence the course of natural events and make them serve his wants, the artificial element in nature that makes man ecologically unique' (Wagner 1960:94). This artificial element, embracing everything manufactured by man, makes up man's technological adaptation.

The materials from which man creates his technology come from the environment and are acquired along with food energy in man's ecological adaptation. Among hunting peoples many of the materials used in technology come from the animals hunted for food, like skins for clothing and tents, babiche or sinew for twine, bone for needles and barbs, When the ecological adaptation changes, the technology changes also and in its turn , as is the nature of cultural systems, can bring about further ecological change. New technology, exotic to the local environment, may also be brought in from outside and again stimulate more or less significant changes in ecology.

### 3.2 Food acquisition

The aboriginal food quest of the Déné was carried out with the aid of bows and arrows and spears, hunting fences and snares, fishing nets and lines. Jenness (1937:85) notes that whereas the usual weapon against land game was the bow and arrow, the babiche snare was more effective. The Indians used the snare for every animal but the bear, the beaver and the buffalo. 'Even the mighty moose fell entangled in its coil.' Among the Chipewyans, ptarmigan, and sometimes geese, swans and ducks, were caught in snares (Birket-Smith 1932:26). Babiche was also used for nets (Jenness 1932:386). Nets could also be made from 'small thongs cut from raw deer-skins' (Hearne 1795:328) or from twisted willow-bark (Jenness 1932:390). Fishing lines were also made from twisted willow-bark fitted with hooks of wood, bone, antler or occasionally birds' claws (Ibid).

Changes in the ecological technology of the Déné followed from the infiltration of their cultural system by the European traders in the eighteenth century. A major result, perhaps the most far-reaching result of the competition between the French and the British for the furs of the Indian, was that European supplies became 'necessities, not luxuries, for the Indians who traded to the Bay, and to many times that number of Indians living inland' (Rich 1967:102). Within a decade of their becoming acquainted with European goods, tribe after tribe became utterly dependent on obtaining these supplies regularly from the traders.

The bow and arrow went out of use; and the Indian starved if he didn't own a serviceable gun, powder and shot... Steel traps replaced wooden ones more slowly. But by 1743 it was reported that the Indians who traded to York Fort were completely dependent on the annual arrival of a ship from England. They had not developed any artisan talent, either for replacing or repairing European equipment; and... by the middle of the eighteenth century a far-reaching and complex Indian system of trade had carried the dependence right up to the foot of the Rockies.

(Rich 102-103)

Various kinds of firearms were introduced by the Hudson's Bay Company into Canada from as early as 1682 when it ordered 315 new and 68 old guns from suppliers in England (Kidd 1957: 15). Asch (1976:9-10) notes that only muzzle-loaders were supplied by the Hudson's Bay Company in the Canadian Northwest until 1870. Then in an effort to improve the efficiency of the Indian trapper at a time when the company was facing stiffer competition from rivals, percussion rifles were offered to the Indians but only in exchange for furs. The Indians who received these firearms mastered them quickly. In 1716 James Knight wrote from York Factory that 'there is no man knows how to use the Guns better than the Indians' (Ibid; 16). When the French missionary Father Jérémie arrived in north-western Canada about 1694 he found that the Dogribs lived on fish and caribou, killing the latter with arrows and building long hunting fences in which they hid snares at intervals (Leechman 1957:28). Within a generation he reported that the Indians were dying of hunger 'as they had lost their skill with the bow.'



By now, the time that they formerly spent in hunting was devoted to trapping animals whose skins were of little use to them and whose flesh, in many cases, was inedible. With the furs they bought powder and shot which soon became essential to existence, and new wants -- steel knives, brass kettles, beads and cloth -- dominated their economy.

(Ibid)

At this early time, prior to 1780, all the European artifacts possessed by the Déné 'were obtained from the Knisteneaux [Cree?] and Chipewyans, who brought them from Fort Churchill, and for which they were made to pay an extravagant price' (Mackenzie 1801:146). As a result Mackenzie noted, at least among the more southerly Beaver, that 'very little use' was made of the bow, and snares 'were no longer known.' Hearne (1795:322) records that both guns and bows and arrows were used in hunting but the northern Indians had 'so far lost the art of shooting with bows and arrows' that he never knew any of them who 'could take those weapons only, and kill either deer, moose, or buffalo, in the common, wandering and promiscuous method of hunting.' On the other hand the southern Indians, though they had been much longer used to firearms, were 'far more expert with the bow and arrow, their original weapons.' Pike (1892:47-48) also found that since the introduction of firearms the Indian had lost much of his old hunting lore. The snare, which had been so important in the old traditional food quest, was almost a thing of the past and used only occasionally when ammunition was scarce. By the late 1920s the bow and arrow among the Chipewyans were

'only known from tradition' (Birket-Smith 1932:19).

The important question in the change from Indian to European food-quest technology is whether the change was beneficial to the Indian in terms of improving the catch of food from the land. Among the Inuit, who lived mainly on sea-mammals, the shift to the modern rifle from the traditional harpoon led to a large loss of food animals from sinking (Sonnenfeld 1960). Among the Déné this loss would not have applied, though some game may have been missed through having been frightened away by noise or inaccurate shooting. The consensus of opinion appears to be that 'the gun and other metal tools improved the efficiency of hunting and increased the food supply' (Driver 1970:536). Kidd (1957:15) agrees, but with less certainty, that 'better equipment for hunting and fishing must have increased the food supply considerably', and Helm and Damas (1963:12) similarly consider that it is 'probably true' that in early contact times the advent of the rifle was of 'primary advantage' to the Athabascans 'and allowed them to increase tremendously the take of certain game animals, most notably the caribou,' but others also. Helm and Damas make the further point, however, that the technology of food acquisition is not in itself of so much importance today. Because the Athabaskan primarily seeks furs to obtain money to buy not only clothing and general equipment but a 'substantial portion' of his food as well. 'One corollary has been the continual accumulation of goods and gear unknown in aboriginal times: canvas canoes and outboard motors, wood-burning tin stoves, woollen clothing, steel saws

and axes, etc.'

### 3.3 Transportation

Driver (1970:19) described the Arctic and Sub-Arctic as 'the home of the snowshoe and toboggan Indians.' These were the means of travel on the winter food quest. Hearne (1795: 283) describes how Indians on snowshoes would run the moose to the ground. 'The moose are so tender-footed, and so short-winded, that a good runner will generally tire them in less than a day, and very frequently in six or eight hours; though I have known some of the Indians continue the chase for two days, before they could come up with and kill the game.' The southern Indians used dogs for this kind of hunting 'but the Northern tribes having no dogs trained for that exercise, are under the necessity of doing it themselves.' The Hudson's Bay Company introduced the use of dogs to pull toboggans after 1870 (Asch 1976:10 quoting Slobodin) but by the end of the Second World War the use of the dog team was declining. 'An amazing number of the younger Indians do not own dogs,' the Medical Officer at Fort Resolution observed in 1948. 'Without dogs an Indian is wholly dependent on others for his support and the support of his family.'<sup>(1)</sup>.

The most significant change in land travel in the Canadian Northwest came with the introduction of the snowmobile in the 1950s. The development of snowmobiles, or autosleighs, as they were first called -- they have had a variety of popular and manufacturers' brand names --- began around 1920 with pioneer work by the Canadian Autosleigh Co.

and by E. A. Alton of Winnipeg who built the first 'aerosleigh' in 1913-14<sup>(2)</sup>. The widespread use of the snowmobile began in the 1950s and the machines quickly proved their worth<sup>(3)</sup>. In terms of acquiring food the use of the snowmobile counteracted the local scarcity of game animals by extending the range of the hunters. This was an important point brought out by the Berger Inquiry. It had been assumed that with the change to permanent settlement living the native people no longer used much of their traditional land base, 'The evidence,' says Berger (1977:103), 'challenges this assumption.' After visiting thirty-five communities in the Mackenzie valley and the Western Arctic, Berger found that in general the people continued to use 'the entire area that their ancestors used.' This was made possible by such new technology as snowmobiles, larger boats and chartered aircraft that enabled the people to reach quickly areas far from the settlement 'and spend a shorter time at areas in which, in the old days, they would have camped for a whole season.' The major disadvantages of snowmobiles are that they cost upwards of \$800, consume gasoline at the rate of a gallon for every 25 miles or so, and require more trail than the old dog-pulled toboggan. Furthermore a trapper driving one usually needs more clothing than otherwise, since far less physical activity is involved in its operation.

Berger includes larger boats along with snowmobiles in the new technology that made this recent development possible. In a region of rivers, lakes and marshes like the Canadian Sub-Arctic boats are the universal, and indeed often

essential, means of summer travel. In traditional times the boats were made of birch-bark, but these began to give way to factory-made canoes in the late 1880s (Lloyd 1943:417). By 1932 there was 'still a great demand among the Indians for outboard motors and factory made canoes, birchbark canoes and paddles are seldom seen.'<sup>(4)</sup>.

The major impact on food consumption of changes in land and water transportation in conjunction with the widespread use of the rifle, was to increase the returns from hunting. The new forms of transportation, especially the snowmobile, also made it easier to bring supplies of store-bought foods to Indians in the more isolated trapping camps, thus increasing the general consumption of these foods. But the greatest impact of transportation technology on food habits in the Northwest was the development and improvement of means of importing foodstuffs into the region quickly and in bulk.

The first steps in this direction were taken by the explorer traders who pushed further and further into the Northwest along the major river systems in order to tap the source of furs for their respective companies. In 1778 Peter Pond found the famous La Loche (Methye) Portage from the headwaters of the Churchill River to the Clearwater River, one of the sources of the Mackenzie. In 1789 Alexander Mackenzie made his historic journey northward from Fort Chipewyan on Lake Athabasca, exploring the river that now bears his name. In the following decades fur trading posts, serviced by birch-bark canoes, were established all along the Mackenzie and its tributaries.



Around 1826 canoes were generally replaced by the larger York boats, built of local spruce and propelled by sweeps, which could carry greater amounts of freight and were more suited to transport on large rivers. During the greater part of the nineteenth century York boats carried most of the freight to the Mackenzie valley from York Factory on Hudson Bay via the Hayes, Saskatchewan, Churchill and Clearwater Rivers to the regional distribution centre at Fort Chipewyan. 'York boats, sturgeon heads and scows, capable of carrying a load of ten tons, manned by a crew of eight oars and a steersman, rowed downstream and tracked up, running rapids and bumping on rocks' (Pike 1892:6).

The first river steamer reached Edmonton along the North Saskatchewan River in 1875. Eleven years later a wagon road was built northward from Edmonton to Athabasca Landing on the Athabasca River, which consisted of 'a large depot for goods, trading-stores and several workmen's houses' (Ibid:4). In 1884 the steamer Grahame, a wood-burning, screw-driven vessel (Lloyd 1943:417), began to operate from Fort McMurray, 'a small post of little importance' at the junction of the Athabasca and Clearwater, to Smith's Landing, now Fort Fitzgerald. Northward freight was then loaded off and hauled through the bush round 16 miles of rapids in the Slave River. In 1885-86 Captain Smith built the steamer Wrigley at the north end of the portage, now Fort Smith, and in the following year it began the north-bound service to Fort McPherson. 'Since the steamers have been running,' writes Pike (1892:13), Fort Chipewyan 'has been partly supplied with the provisions of

civilization, but is still chiefly dependent on its fisheries for food, and great pains are taken in the autumn to store as many whitefish as possible.' In 1902 the steamer Mackenzie River, the first stern-wheeler to operate on the lower Mackenzie, 'was well able to carry all the supplies needed for northern posts<sup>(5)</sup>. Asch (1976:9) argues that the Hudson's Bay Company developed steamer transportation, and later the railway, in order to overcome the inefficiency and remoteness of the Mackenzie fur trade after losing its trading monopoly elsewhere in Rupert's Land when the territory was sold in 1870.

In 1912 the railway was extended from Edmonton to Athabasca Landing for the purpose of carrying fur-trading supplies and in 1915 continued to the town of Peace River. Peace River was the gateway to the Mackenzie valley for only a few years, however, for in 1921 the railway from Edmonton reached the Clearwater River about eight miles east of its junction with the Athabasca River and four years later went on to the present site of Waterways, three miles from Fort McMurray. 'After this last extension the modern period of development began in the Northwest Territories with freight moving by rail to the northern terminal at Waterways and thence by river steamers to northern settlements.'

In 1871 the steamer St Michael pushed up the Yukon River as far as Fort Selkirk and opened the modern transportation era in the Yukon territory. The discovery of gold in the Klondike caused a boom in river traffic and was the impetus needed to start work on the White Pass and Yukon Railway in

August 1898. The railroad reached Lake Bennett in 1899 and Whitehorse by August 1900. From Whitehorse a steamer service was inaugurated to Dawson.

Facilities for bulk transportation into the far Canadian Northwest were thus made available and the area opened to the massive importation of foodstuffs on a regular basis during the summer. For example, the famous female explorer of the Arctic, Elizabeth Taylor, saw 'a variety of packages addressed to such interesting places' at Athabasca Landing in 1892. As well as blankets, tobacco, oysters and sugar, she noted 'sacks of flour, great flat greasy sacks of bacon, boxes of apricots and canned peaches, and boxes of evaporated fruit' (Nute 1948: 20). One effect of this steamer transportation may have been to bring about a reduction in the acreage under cultivation in the Mackenzie valley. This decline in gardening was noticeable around the beginning of the twentieth century and attributed to 'increases in the volume of transportation' <sup>(6)</sup>. 'Whereas the early settlers developed gardening as a means of supplementing their food supply, the present population is able to have most of its food shipped in.' This applies, however, to white gardening. Indian gardening had not developed much at this time and did not reach its peak of popularity until around the middle of the century.

During the Second World War a 'tractor train' service was inaugurated to facilitate the importation of food and other necessities into the Mackenzie during the winter months. The Indian Agent at Fort Resolution describes this service in 1939 <sup>(7)</sup>.

The so much "talked about" Tractor-Train from Peace River came in Resolution April 8th on its way to Yellowknife. The train was made up of three Caterpillars with three wide heavy sledges to each, laden with meat and goods of all kinds. Travelling on the Lake was easy compared to the hardship this crew of 20 men had to go through south of Hay River.

'These trains bring in fresh and frozen provisions and heavy machinery for mining centres,' the Indian Agent noted the following year<sup>(8)</sup>.

The need for the tractor trains was made superfluous by the development of air transportation. The use of aircraft in the North began in a small way in the inter-war years and expanded rapidly when the war ended. Northern aviation began in 1921 when two Junkers aircraft flew into the Mackenzie valley carrying personnel to Norman Wells during the oil boom there (Lloyd 1948:163). These were the forerunners of many aircraft that were to assist in the development of the Mackenzie during the next decade. In 1928 C. H. 'Punch' Dickins took the first plane over the Barren Grounds of the central Arctic and in the following year crossed the Arctic Circle to Aklavik (Wallace 1943:187). 'This trip to the shores of the Arctic Ocean revolutionized the fur delivery system, and almost overnight the aeroplane became transport medium replacing the dog sled and canoe of former years' (ibid). The first aeroplane was used in the Yukon during the winter of 1927-28. This was owned by the Yukon Airways and Exploration Co.<sup>(9)</sup> Within the next decade, Lloyd writes, air mail had been established to the Canadian Arctic coast, float- or ski-equipped aircraft had become the normal means of long-distance northern travel and aircraft had made possible the development of such

industrial enterprises as oil at Norman in the early 1920s, radium on Great Bear Lake in 1930, gold at Yellowknife in 1938 and oil again at Norman Wells in 1942 (Lloyd 1943:417). In turn, the mineral industry stimulated the development of arctic air transportation as, for example, Eldorado Aviation in support of uranium mining operations at Great Bear Lake and Beaverlodge (Wheeler 1956).

The North American war effort gave a great boost to northern aviation with military transport operations like the Northwest and North~~east~~ staging routes to Russia and Europe. These opened the North to commercial and private flying, with air-routes coming into operation to serve such points as Fort Smith, Resolution, Yellowknife, Rae, Hay River, Fort Simpson, Norman Wells and other northern centres<sup>(10)</sup>. As Bethune (1937:33) points out, aircraft were so admirably adapted to the requirements of the Canadian North that the development of an air transport service in the western portion of the Northwest Territories was extremely rapid.

A further impetus to air travel in the North was the DEW Line of the mid-1950s. Military technology applied to national defence overcame the geographical obstacles to full-scale development of air transportation. Airstrips and aviation facilities were constructed in the most inaccessible parts of the Arctic and when the construction phase of the DEW Line project came to an end around 1957 several companies sought compensation in the northward extension of civilian traffic.

In 1942 when Canadian Pacific Airways took over control



of most of the commercial aviation in northern Canada it carried during its first year of operation an estimated ten million pounds of air cargo (Wallace 1943:189-190). It does not appear, however, that much of this was food. In 1945 the Comptroller of the Yukon Territory wrote, 'The introduction of the aeroplane has not brought any relief in so far as transporting food products is concerned...'(11). But those were early days in the history of northern aviation. The war had not yet ended, civilian use of air transportation was still taking second place to the war effort and the use of aircraft to transport food was not yet developed. Later, as food distributors began to elaborate packaging, storage and refrigeration facilities, and when the food industry itself moved into the era of pre-packaged, dried and frozen convenience foods, the aeroplane came into its own. Land and river transportation could still be used for the bulky staples that survive storage for long periods. But perishables and current supplies arrive on the daily aircraft.

One critical problem has appeared with regard to the transport of fresh produce to northern regions in the winter. This is that the planes used, though heated, cool quickly to the outside temperature when the cargo doors are opened. It is therefore necessary to unload very rapidly. This, unfortunately, cannot always be done and the result is permanent damage to fresh vegetables such as lettuce and celery, and to fruit like oranges and apples (Boyd and Boyd 1961:92). In spite of this, milk, eggs, fruit, vegetables, meat and dairy products, and all the full range of canned,

frozen and processed foods available in any supermarket in southern Canada can now be flown to the North and sold in identical supermarkets in the Arctic and Sub-Arctic. Furthermore, the operation, fueling, loading and unloading of all means of transportation provides work for Indian men and brings them extra cash with which to buy the endless variety of products that the food industry ships to the settlements in the North.

### 3.4 Food preparation and preservation

The northern Athabascans living in the forest were never short of firewood . But some of the Chipewyans visited by Hearne (1795:315) lived in 'such an inhospitable part of the globe that for want of firewood and fuel they are frequently obliged to eat their victuals quite raw, especially in the summer, while on the barren ground.' But they were so used to this practice that they frequently did it from choice, 'particularly in the article of fish.' Morice (n.d.:152) writes that Indians ate raw meat 'apparently without repugnance.' However, most animal food was cooked and the general method of cooking was by boiling. Pike (1892:52) points out that this 'takes most of the flavour out of the meat, but has the advantage of being easy and economical of firewood.'

The firewood was lit with a hard stick drill using the palms of the hands rather than a bow (Morice n.d.:156). The Hare Indians, on the other hand, made fire with pyrites (Jenness 1932:395). But the D  n   cooking utensils were gene-

rally of birch- or spruce-bark or of twined basket work, as in the lower Mackenzie, or of woven spruce roots, as among the Fort Nelson Slave (Honigmann 1946:39). They could not be placed directly on a fire. In the southern parts of the region the Indians would hang these perishable utensils over a low fire without flame, 'a very tedious operation' (Mackenzie 1801:207). But this was not so common in the North. There the Déné would 'heat stones red-hot and put them into the water, which soon occasions it to boil and by having a constant succession of hot stones, they may continue the process as long as it is necessary' (Hearne 1795:316). As Morice (n.d.: 157) dryly comments, 'it is safe to say the natives never eat their food well done.' All writers on the Arctic Drainage Déné since Hearne have described this method of cooking but none so fully as the first explorer of the region. Hearne points out the big drawback of the method which was that food so prepared was full of sand, 'for the stones thus heated, and then immersed in water, are not only liable to shiver to pieces, but many of them being of a coarse gritty nature, fall to a mass of gravel in the kettle, which cannot be prevented from mixing with the victuals which are boiled in it.'

One interesting form of cooking pot was reported by the RCMP from Old Crow in the Yukon in 1928, though there is no indication of its antiquity<sup>(12)</sup>

Their cooking was done in the Cariboo Stomach bag. They said that the bags would last for years. These bags were hung in a

circular shape like a pot and a fire was built to one side and stones made red-hot and then dropped into the bag of water with the meat and tied up and allowed to boil. They used to have a number of stones of different sizes, according to the amount of water and meat they wanted to boil, and when the stone was cool the meat was done.

Stoves on which to cook first came into the far Northwest around the time of the First World War (Ibid) but because of the abundance of firewood there is no indication that stoves became as popular in the sub-arctic forest as they did in the Barren Ground and along the arctic coast where the Inuit made great use of them. In fact, the Indian Agent Resolution in 1933 claimed that 'the use of primus stoves is not known among the natives' (13). Those who had to go into the Barren Grounds carried enough wood with them for the estimated number of nights they would be away. Only with the large-scale migration of Indians into settlements and the provision of permanent dwellings, initially in the form of one-room shacks erected by the Indians themselves and later, from 1954 onwards, provided by the government, did the use of stoves become a general attribute of Indian food preparation. The first stoves, some of which are still in use, were home-made out of oil drums and continued to burn wood. But even on these, or on the more up to date gas and electric cookers, boiling has remained the favourite and almost exclusive type of cooking (Vanstone 1963:26).

The preservation of food has also undergone technological change since the days of drying, smoking and making pemmican.

Some form of preservation is necessary in order to avoid spoilage and waste.

Contrary to popular opinion, food spoilage occurs in arctic regions. The microorganisms present in the air can bring about food spoilage when in a favourable environment. The number of air-borne microorganisms is greater during the summer, but enough are present to bring about spoilage during the rest of the year despite continual snow cover. Both cold storage and refrigeration are necessary for the preservation of certain foods. All sanitary and storage procedures carried out in temperate zones should also be followed in preparing and serving food in arctic regions.

(Boyd and Boyd 1961:91)

But there is little evidence of the use of natural cold storage for the preservation of food by the arctic or sub-arctic native peoples beyond the regular practice of caching, which is not quite the same thing in the more domestic context that Boyd and Boyd appear to imply. Mackenzie (1801: 57) notes, however, that 'On each side of these houses are a few square holes in the ground of about two feet in depth, which are covered with split wood and earth, except in the middle. These appeared to be contrived for the preservation of the winter stock of provisions...'

But refrigeration was needed most in the summer. For three months or more the temperature may remain well above freezing and food that cannot be frozen in underground storage will spoil. 'Bland foods, such as creamed chicken, cream puffs, etc, must be handled as in temperate regions.



Food poisoning outbreaks occur when these precautions are not observed....' (Boyd and Boyd 1961:93). Furthermore, summer is generally a season of meat shortage. Any meat, especially of local game animals, that could be saved from the winter hunt and preserved would be a valuable addition to the leaner diet of summer.

One of the first to recognize the importance of refrigeration was Dr A. G. MacKinnon, the Medical Officer at Pangnirtung on the east coast of Baffin Island in 1936. He felt there was enough game in the area to support a much larger population than was living there at the time and that much meat was wasted 'by these improvident people', enough to provide them 'with what extra they need to live without hunger'.<sup>(14)</sup> Acting on this, wrote Dr MacKinnon, 'I have recommended a system of underground refrigeration....' The idea was taken up by the Administration. 'The matter of cold storage at Pangnirtung and elsewhere in the Northwest Territories,' wrote the Deputy Commissioner, 'will be further considered on advice from the National Research Council'.<sup>(15)</sup> But nothing was done. In 1946 the disadvantage of not having cold storage facilities was made clear to the Administration when the Geological Department of Imperial Oil announced it had a surplus of about forty tons of frozen meat at Norman Wells which the company offered free of charge 'for distribution to Indian and Eskimo wards of the Government in Aklavik and Tuk Tuk area'.<sup>(16)</sup> But the Deputy Commissioner of the Northwest Territories had to decline the offer because 'this Administration has no facilities for

storing frozen meat<sup>(17)</sup>. Later the Administration bought two large refrigeration units from Imperial Oil at Norman Wells for use at Fort Smith and Hay River<sup>(18)</sup>.

Beginning in 1951 the Indian Affairs Branch built community freezers at Fort Chipewyan, Yellowknife and Fort Resolution; in the following year at Stony Rapids, Fort Norman and Fort Providence; in 1953 at Fort Rae and Rocher River; and in 1955 at Fond du Lac, Snowdrift and Fort Franklin<sup>(19)</sup>. Walk-in freezers at Forts Simpson, McPherson and Good Hope were planned for 1956-57<sup>(20)</sup>. With a 'serious reduction in the caribou population in virtually all of the District of Mackenzie' being reported by the Canadian Wildlife Service<sup>(21)</sup>, the provision of refrigerators helped preserve numbers by reducing waste through spoilage. And the settlements appreciated the refrigerators, or 'reefers' as they were popularly called. When the freezer was being built at Fort Franklin in 1955 the Welfare Teacher reported<sup>(22)</sup>,

This will be a very beneficial asset to our community, as we hope to be able to store enough meat to last us through the summer months until the caribou herd returns in the fall. This will be operated as a community project, thus the widows, orphans, blind and old age pensioners who are unable to hunt will be given their share of the meat. Meat will be issued twice weekly.

And when the freezer was completed the Welfare Teacher wrote: 'There will be no more feast and famine but a year round issue of fresh meat'<sup>(23)</sup>.

Vanstone (1961:28) reports on the freezing and storage unit in the village of Snowdrift. The people stored both dried and fresh caribou meat in it as well as moose meat and occasionally fish. This was similar to the contents of the Fort Franklin freezer which in April 1956 held 'a fair stock' of caribou and moose meat and 700 pounds of frozen trout<sup>(24)</sup>. At Snowdrift the Hudson's Bay Company manager held the key and usually opened the freezer on Saturdays when the people took out the meat they needed for the coming week. The freezer was particularly useful when people returned from caribou hunting in the late summer or early fall because there were 'no other satisfactory facilities for the storing of large amounts of dried and fresh meat.'

Indian Affairs Branch also maintained a supply of buffalo meat in the freezer at Snowdrift for issue each month to those individuals on rations and to those receiving federal old age pensions. The ration of buffalo meat was in addition to the amount of money received as a ration or a pension (Vanstone 1961:29). The buffalo meat came from Wood Buffalo Park and was distributed to various villages at the time the game department had its annual kill. The gross production of buffalo meat from the 1959 slaughter was 228,549 pounds but this was not as much as had been expected. The target was 300,000 pounds rising annually to half a million<sup>(25)</sup>. Of the actual production 85,000 pounds was allocated to Indian Affairs.

It would appear that the distribution covers literally all local settlements

in the Mackenzie area. It would also appear that if this quantity were to be increased and consumption were planned for the summer months, that thought should be given for provision of refrigeration and proper storage at some key points at down river posts.

(Ibid)

Here was further impetus to the community freezer programme and further evidence of its usefulness to Indian settlements in the Mackenzie.

So with community freezers available for large-scale storage of country foods and growing numbers of domestic freezers for day-to-day purchases of the wide variety of foods being sold in the stores, the modern revolution in northern Indian food habits was well under way. But intellectual and social development lagged behind the material changes. Significant development in the ideational and social adaptations of the Déné were thus required before the revolution in food habits could be said to be complete.

### 3.5 Notes and references

- (1) Medical Officer's Annual Report, Fort Resolution, 1947-48: Dr L. J. Mulvihill, Medical Officer (RG85, Vol. 1112, File 590-8, Pt. 2)
- (2) Winnipeg Evening Tribune, 9 February 1924, p. 2.
- (3) Letter from the Administrator of the Arctic to the Director, Northern Administration Branch, d. 13 June 1962 (Public Archives Record Centre, File 1000/170, Pt. 2, Ref. No. N 233).

- (4) Extract from the Annual Report of the Mackenzie Sub-Division, RCMP, Fort Simpson, d. 1 October 1932 (RG85, Vol. 567, File 18, Pt. 3).
- (5) Draft article on 'Water Transportation in the Canadian Northwest': J. L. Robinson, Geographer, September 1945 (RG85, Vol. 981, File 14885, Pt. 1).
- (6) Draft article on 'Land Use Possibilities in Mackenzie District, N. W. T.': J. L. Robinson, Geographer, May 1945 (RG85, Vol. 961, File 14885, Pt. 1).
- (7) Indian Agent's Monthly Report, Fort Resolution, April 1939: J. H. Riopel, Indian Agent (RG85, Vol. 915, File 11031, Pt. 1).
- (8) Indian Agent's Monthly Report, Fort Resolution, May 1940: J. H. Riopel, Indian Agent (RG85, Vol. 915, File 11031, Pt. 1).
- (9) Memo from H. E. Hume, Chairman, Dominion Lands Board, to H. H. Rowatt, Deputy Minister of the Interior, d. 14 August 1933 (RG85, Vol. 826, File 7229, Pt. 1).
- (10) 'The Canadian North': text of address by H. Keenleyside, Deputy Minister of Mines and Resources, 1949 (RG85, Vol. 1035, File 20373).
- (11) Letter from G. A. Jeckell, Controller, Yukon Territory, to R. A. Gibson, Director, Bureau of Northwest Territories and Yukon Affairs, d. 11 April 1945 (RG85, Vol. 981, File 14885, Pt. 1).
- (12) RCMP Patrol Report: Rampart House to Old Crow and return, 13 to 16 November 1928 (RG85, Vol. 609, File 2657, Pt. 1).
- (13) Letter from Dr C. Bourget, Indian Agent, Fort Resolution, to H. E. Hume, Chairman, Dominion Lands Board, d. 23 September 1933 (RG85, Vol. 1112, File 590-8, Pt. 1).
- (14) Letter from Dr A. G. MacKinnon, Medical Officer, Pangnirtung, to J. L. Turner, Director, Lands Division, Northwest Territories and Yukon Branch, d. 18 October 1936 (RG85, Vol. 815, File 6954, Pt. 3).
- (15) Letter from R. A. Gibson, Deputy Commissioner, Northwest Territories, to the Commissioner, RCMP, Ottawa, d. 19 December 1940 (RG85, Vol. 924, File 11675).
- (16) Letter from Imperial Oil Ltd., signed by D. H. Piper, to H. Davidson, Purchasing Agent, Department of Mines and Resources, d. 5 July 1946 (RG85, Vol. 1007, File 17098).



- (17) Letter from R. A. Gibson, Deputy Commissioner, Northwest Territories, to H. Davidson, Purchasing Agent, Department of Mines and Resources, d. 16 July 1946 (RG85, Vol. 1007, File 17098).
- (18) Letter from E. G. Oldham, Superintendent, Forests and Wildlife, Fort Smith, to R. A. Gibson, Deputy Commissioner, Northwest Territories, d. 9 October 1946.
- (19) Memo from J. C. Jackson re Freezers Built by Indian Affairs Branch, d. 6 January 1956 (RG85, Vol. 1291, File 310-3, Pt. 2).
- (20) Report on Indian Affairs freezers, Western Arctic, October 1955 (RG85, Vol. 1291, File 310-3, Pt. 2).
- (21) Draft press release from Canadian Wildlife Service. Undated 1955 (RG85, Vol. 1291, File 310-3, Pt. 2).
- (22) Welfare Report, Fort Franklin, September 1955: W. A. Bowerman, Welfare Teacher (RG85, Vol. 1340, File 1000/108, Pt. 1).
- (23) Welfare Report, Fort Franklin, October 1955: W. A. Bowerman, Welfare Teacher (RG85, Vol. 1340, File 1000/108, Pt. 1).
- (24) Welfare Report, Fort Franklin, April 1956: W. A. Bowerman, Welfare Teacher (RG85, Vol. 1340, File 1000/108, Pt. 1).
- (25) Memo from C. L. Merrell, Administrator of the Mackenzie, to W. G. Brown, Deputy Commissioner, Northwest Territories, d. 1 December 1959 (RG85, Vol. 1291, File 310-3, Pt. 2).

## Chapter Four

### Ideational factors

#### 4.1 Introduction

In cultural systems man's ecological adaptation is the behaviour involved in the acquisition and use of energy and matter. In the course of his ecological behaviour man also acquires and uses information and hence develops the need to communicate. According to Back (1971:662) 'one of the conditions which distinguishes living systems is the use of communication and transmission of information instead of the transport of energy and matter.' In human systems information is both biological and cultural. Biological information is passed on genetically from generation to generation to determine the anatomy, physiology and biological and psychological functioning of the body. Cultural information, though biologically based, is acquired by perception, cognition and the exercise of the creative imagination. It is based on the unique human ability to use abstract symbols in thinking, reasoning, speaking, writing, computing. This is man's ideational adaptation. It corresponds to the 'World Three' of the British philosopher Karl Popper: the world of actual or possible objects of thought, the world of concepts, ideas, theories, theorems, arguments and explanations, the world of all artifacts of the mind. The activity associated with man's ideational

adaptation is that which White (1943:335; 1949:22) refers to as 'symboling': 'All human behaviour consists of, or is dependent upon, the use of symbols.' Geertz (1964:62) says that all symbol systems have at least one thing in common: 'they are extrinsic sources of information in terms of which human life can be patterned -- extrapersonal mechanisms for the perception, understanding, judgment and manipulation of the world.'

#### 4.2 Information gathering and dissemination

Like that of all primitive <sup>people</sup>/the food quest of the Arctic Drainage Déné was based on a knowledge of their environment built up over thousands of years of adaptation to the sub-arctic ecosystem. The Déné lived traditionally by hunting and the success of hunting depends on a detailed knowledge of animal behaviour in particular environmental situations. When the white men came to the Canadian Northwest they brought new sources of food with them and elicited a new kind of response from the Indian. Operant conditioning, whereby a new response is acquired as a result of satisfying a need, is one of the most primitive forms of learning. Among the Déné the need was the age-old need to relieve hunger. After contact with the white men the new response was to consume much of the mainly carbohydrate foodstuffs that the white men offered, and they were found to be satisfying. They filled the belly with less trouble than hunting, running down moose for several hours, or patiently stalking the caribou.

By conditioning, the Indians came to like the white man's food, though not, in most cases, to the exclusion of traditional game. As Pike (1892:23) says, for example, his Indian companions were 'constantly begging to eat flour and bacon.' As well as conditioning, another ancient form of learning came into play: imitation. By imitating the food habits of the white men the Indians came to accept more and more of the white men's food.

But the white men were more sophisticated intellectually than the Indians. Their ideational level was much higher. They began to perceive a deterioration in the health and well-being of the Indian and to realize that this was due to poor eating habits. As early as 1920 the government's own appointed field officers were attempting to alert Ottawa to the fact that the Indians were not eating properly. F. H. Kitto, for example, wrote on the Indians of the Mackenzie: 'Information supplied me indicated that Indians suffer from various causes, including lack of proper nourishment....'(1). In 1930 the Medical Officer at Fort Resolution noted that disease and death were taking a heavy toll of the Indians and among the factors he considered responsible was under-nourishment<sup>(2)</sup>.

At this time, in the early 1930s, medical officers all across the North and administrators in Ottawa were becoming increasingly alarmed at the rise of tuberculosis incidence among the Indian people. Again one of the universally acknowledged contributing factors was an inadequate food supply. The Director of Medical Services for the Department of Indian

Affairs was convinced that 'the problem of tuberculosis in the North was an economic one more than a medical one. Guarantee a good food supply, and tuberculosis will take care of itself' (3). Jenness (1942:376), writing about 'Canada's Indian problems', recognized that their standard of living was so low that 'the majority' were permanently undernourished.

The cause of the problem should have been obvious. The Indians were becoming tied ecologically and economically to the trading post and eating more trading post foods. Yet investigations by a team of nutritionists led by Dr F. F. Tisdall disclosed in 1939

that the foods consumed at northern posts usually contain few citrus fruits or juices, insufficient milk and too high a proportion of carbohydrate foods. This was partly due to the fact that at that time citrus juices were not stocked at the posts. It was impossible to obtain fresh supplies of meats, fruits and vegetables by air, and the supply of game and fish at different posts varied greatly.

(Robertson et al: 1953:740).

This 1939 investigation was admittedly directed towards white post managers 'who fed their own families from the stock on their shelves' and consequently suffered frequently from illness, but its extension to the Indians, who also fed their families from trading store stock and who also suffered frequently from illness, should have been obvious.

About this time the Northwest Territories Council



'requested that a nutritional survey be made of the inhabitants (mainly native) of the Territories' <sup>(4)</sup>. A special committee under Dr J. W. McGill of Indian Affairs Branch circulated a questionnaire as widely as possible to determine the foods eaten, the availability of different types of foods, the evidence of vitamin deficiencies, etc. But only 17 of these questionnaires were returned, mostly from the RCMP, including 6 from the Yukon, 9 from the District of Mackenzie and 2 from Victoria Island. So small a return yielded insufficient data for any conclusive report, so additional information had to be gleaned from various sources 'such as books by different authorities, verbal descriptions from officers, reports of doctors and dentists, etc.' Even then the results were inconclusive, with 'a divergence of opinion on the health of the Indians and Eskimos' that was 'probably due to the locality where the writer or traveller happened to be, to the nature of his business, to the accuracy with which he observed real native conditions, and to other factors.' In her brief report based on this survey <sup>(4)</sup> Dr Winifred Hinton wrote about the Indians:

The Indians of the Northwest Territories live in the treed areas and do not usually encroach on the Eskimo territory. Their problems of supply are, therefore, very different. They have also been greatly influenced by the white man, more so than the Eskimo, it appears, and some authorities feel that this contact is having a disastrous effect. The food habits seem to be one of the first influences to be felt and the Indians have taken to tea, sugar and bannock as staples of their diet.

Commenting on Dr Hinton's survey the Medical Assistant to the Deputy Minister of Pensions and National Health said that 'conclusions drawn by scientists who make occasional swift trips to the North, are of doubtful value when compared to the conclusions of the missionaries, traders, RCMP, or employees of the Dept of Mines and Resources, who have either been living for long periods in the North or have been making repeated trips to the North'.<sup>(5)</sup>

But these very people had for twenty years been writing back to Ottawa complaining of the poor nutrition of the Indian and also suggesting both cause and cure. And they continued to do so. 'Malnutrition is a welfare problem,' wrote the Medical Officer at Fort Resolution in 1948; 'if the Indians depended more on their original diet the state of their nutrition<sup>would</sup> improve'.<sup>(6)</sup> But the Administration were pessimistic. Major McKeand, of the Bureau of Northwest Territories and Yukon Affairs, stated after reading the Hinton report: 'The net result of this seventeen-month survey is... that little can be done to (a) promote the use of native foods, or (b) improve actual trading practices from Ottawa or any other outside point'.<sup>(7)</sup>

Part of the problem was the difficulty of assessing malnutrition. Winifred Hinton herself wished to 'mention in passing... that the methods of determining nutritional deficiencies are not sufficiently out of the research stage to make accurate surveys of whole population groups, nor for accurate use and interpretation even by regular medical

officers.<sup>(4)</sup> (Emphasis in original). Support for this statement came from Dr Pett (1950:1), the government's chief nutritionist, who claimed that no simple system had yet been devised for the assessment of malnutrition. 'A record of foods ingested gives little indication of the probable results because individuals vary in their requirements and in their ability to adapt themselves to altered conditions.'

Nutrition surveys in different parts of Canada record diets as being "inadequate" and in any region there may be as many as 25 per cent of the persons studied living on such diets. Many of these people seem to be perfectly healthy and show no evidence of malnutrition, presumably because their requirements are lower or their adaptation is better. Conversely, some of the people on the better diets show evidence of malnutrition, presumably due to the operation of conditioning factors.

(Ibid:3)

Nevertheless the results of poor nutrition among the Déné were obvious in morbidity and mortality statistics, including those of children. Many competent northern officers, both medical and administrative, had argued that the major cause of this poor nutrition was the adoption by the Indian of many of the foods and food habits of the white man and that the way to improve the situation was to encourage a return to the traditional diet. For those who may not have been convinced of the superiority of native foods comparison studies were carried out. In 1950 the chemical analysis of caribou and fish showed that these two local products compared favourably

'in total food value with any of the items listed that might ordinarily be sent in supply ships'(8). These findings were confirmed by the Alaskan Health and Nutrition Survey of 1954-58. This American survey showed that native fish and meat contained much more of the necessary proteins and less of the potentially harmful fats than commercially available meats from domesticated animals(9). Trout, char, salmon and pike in dried form had twice the amount of protein and fat of any white fish. Indigenous meat and fish samples from the Canadian North collected by Dr Otto Sdæfer showed similarly high levels of protein but slightly higher fat content(10). But the fats were found to be more polyunsaturated 'to an astonishing degree in beaver, muskrat... and also in caribou to a markedly higher degree than in beef. Furthermore studies have shown 'the generally multifold higher concentration of Vitamins A & C' in wild berries and plants that were or still are consumed by northern Indians than are found in garden-grown fruit and vegetables (Ibid).

The fact remained, however, that the Administration, after forty years of interest in Indian health and nutrition, still did not know exactly what the Indians were eating. In 1965 another attempt was made by the Northern Medical Research Unit of the Northern Health Services in co-operation with the Nutrition Division of the Department of National Health and Welfare to discover the actual food habits of the northern native peoples by sending questionnaires to school children right across the Arctic and the Sub-Arctic(11). 'The need for such a survey is indicated by the fact that many of the

native population, especially children, are anaemic and it is considered that the changing food habits of the native population may be a major cause of this condition<sup>(12)</sup>.

But parents and teachers raised considerable objections to filling in the questionnaires and little of value came from the exercise. Then, nearly a decade later, Nutrition Canada carried out its well-publicised survey of the eating habits of the Canadian population, including a representative sample of Indians among whom the problems of malnutrition were readily apparent.

The value of information is as a basis for behaviour. Man acts on information, and therefore the dissemination of information is of vital importance. Accumulated knowledge must be passed on to those who can benefit from it. One way to pass on information on nutrition to the Indians of the Canadian Northwest was to publish it in written form. One example of this approach is the 'Good Food --Good Health' leaflet issued by Indian and Northern Health Services in 1959 to help home-makers in the selection and buying of food (Lang 1960:50). Quantities of the basic foodstuffs were suggested for each member of the family and 'best buy' hints were offered. The information presented in the leaflet was based on Canada's Food Rules, and the leaflet was distributed through Indian Affairs Branch to all their agencies. Another source of information open to the Indians was the newspapers available in growing numbers in the major northern settlements, newspapers like the News of the North, the Yukon Indian News, The Drum, The Hub, The Pilot, Tapwe and others. Though



mostly in English and mostly aimed at the white residents of the Mackenzie district and the Yukon, the information contained in them would reach directly or indirectly the native inhabitants. Apart from regular articles on cooking, complete with recipes and helpful hints, published primarily with the white housewife in mind, these newspapers carried reports of surveys that showed how native foods contained much more iron, vitamins and minerals than did the imported foods in the stores. The traditional diet had provided all of these in adequate amounts, 'while nutritional deficiencies such as iron deficiency, anaemia, malnutrition and obesity are increasingly found in population groups with little or no reliance on native food resources',<sup>(13)</sup>. And the papers reported the work of people concerned with educating the Indian in better eating habits, people like Otto Schaefer, head of the Northern Medical Research Unit in the Charles Cammell Hospital in Edmonton, or Raymond Cbomsawin, an Abenaki Indian, currently Health Co-ordinator for the National Indian Brotherhood and chairman of the National Commission's Inquiry on Indian Health.

But against the newspaper reports with their statistics, their nutritional terminology, their sometimes difficult phraseology and vocabulary, their tiny, hard-to-read printer's type, there stands in sharp contrast the regular weekly advertisements from the supermarkets, the fast-food chains, the pizza parlours and the restaurants with their bold type, large billboard-style layout and illustrations. In even greater contrast and stronger opposition comes the bright,

loud, instantly comprehensible message of the television advertizers. Television has become a very powerful instrument of ideational change in the North, one against which the more sober, less persistent media and individual educators are finding it difficult to compete. Their message is lost, buried in newsprint. The message of the food manufacturers<sup>is</sup> shouted simply and repetitively into Indian households with an imperative authority no newspaper article and no educator can hope to achieve.

A third method of disseminating information on nutrition to the Indians is by a specially designed programme of education of the kind normally sponsored by government departments or agencies. In February 1977 a report was tabled at the Northwest Territories Council containing details of a nutrition programme drawn up by the Department of Social Development<sup>(14)</sup>. The department itself would provide training sessions for doctors, teachers, day-care personnel, social workers, restaurant staff and others who offer meal services or influence eating habits. Nutrition education and counselling, meal assistance schemes, information services and properly qualified personnel would also be integral parts of such a programme. The emphasis was on education, on an all-out attempt to raise the ideational level of the Indian with respect to food habits and diet.

A government measure like this is beneficial in the short term. The best way of disseminating information in the long term is by education of the young in schools.

#### 4.3 Schools

When the Department of Northern Affairs and National Resources accepted responsibility for providing schools and operating an integrated educational system for the whole population of the Northwest Territories in 1955 only 30 per cent of Indian children were enrolled in schools in the Territories<sup>(15)</sup>. By January 1964 'as a result of a vigorous policy of school construction' this percentage had increased to 72. This increased rate of school attendance had certain repercussions on Indian food habits. Basically it increased the numbers of those able to read and write and thus improved the ability of the population to receive information from government sources and the media, and at the same time exposed growing numbers of young Indians to the advertizing of undesirable foods, like candies, soft drinks, sugared cereals, in newspapers and magazines endowed with the new authority of the printed word.

As long ago as 1920 government officers recognized that schools can not only teach the necessary academic subjects but also give valuable instruction in various manual arts including cooking for the girls and agriculture for the boys<sup>(1)</sup>. This was later put into practice. Gardening was taught in practical lessons to the children at Fort Resolution, for example. 'School gardens were allotted to each pupil who cultivated it [sic] and planted vegetables. Enthusiasm was easily roused over this and care of seedlings grew into a real competition'<sup>(16)</sup>. The early inculcation of horticul-

tural knowledge and techniques would prove of later value to the Indians and their diet. Similarly the passing on of country lore to girls would prove of later benefit. 'Went picking blueberries, cranberries and black currents [sic]' one Welfare Teacher reported, 'and then showed some of the younger Indian girls how to preserve these berries in jars and by freezing. We also made jam and jelly'.<sup>(17)</sup>

The Administration decided to use the school system as a means of educating girls in domestic science and home-making. In January 1960 they appointed a home economics specialist, Mrs Mary Maguire, to work in the Vocational Training Section<sup>(18)</sup>. 'Changing nutritional patterns' was among the subjects that Mrs Maguire wanted to discuss with teachers interested in home economics and home-making courses in northern settlements. In June she toured the Mackenzie area and found that the home economics programme was going well in the schools under teachers described as 'very competent'.<sup>(19)</sup> Half a dozen schools had home economics teachers: Yellowknife, Fort McPherson, Fort Simpson, Fort Smith, Hay River and Fort Rae; and all were providing vocational training in home economics for girls<sup>(20)</sup>. 'But the ones who need help right now,' wrote Mrs Maguire, 'the opportunity classes, the teenagers out of school, and the mothers at home -- are, I'm afraid, not faring so well in some districts'.<sup>(19)</sup> One place where these sections of the population did have an opportunity to receive instruction in home economics was Fort Providence. As early as 1939 there were thirteen girls over sixteen years of age at the Industrial School 'learning the art of Cooking, Sewing and general housework'.<sup>(21)</sup> Another was Fort Franklin

where, in 1957, the Welfare Teacher added 'a second class in Domestic Science with several of the younger married women and teenage girls in attendance. With malnutrition not uncommon among the children in this settlement I feel that better and more information on proper diet to the mothers would be a safeguard against such possibilities'.<sup>(22)</sup> This was a major objective of home-making education right across the North. Its basic philosophy, as expressed by the Regional Administrator at Churchill, was not only to 'introduce and develop basic cooking skills' but also to 'educate the women of the community about food values in terms both of nutrition and money' and to 'contribute to the raising of the standard of nutrition and health generally in the country'.<sup>(23)</sup>

In the classroom itself the teacher had a good opportunity to influence the children in general towards better eating habits. For example, the Welfare Teacher at Hay River reported in 1950: 'As a result of daily reminders in the classes, and using lectures regarding diets to the parents, the natives are buying fruit now, instead of candy and pop which they previously bought'.<sup>(24)</sup> And at Old Crow in the Yukon Hildes and his fellow workers (1959:840) consider that 'The extensive use of milk, all of it imported, probably results from health education in the school and by the resident nurse.' Children at Old Crow drank milk once a day or more often.

The inherent cultural danger in a school system operated by the ethnic majority for the benefit of the children of a minority group is that the children of the minority group may be led to abandon their distinctive cultural identity



and to sink into the morass of uniformity and conformity with the dominant majority. In many cases an educational system has been exploited with such cultural extinction in mind. And in the early days of southern Canadian involvement in the North some were advocating just such a policy with regard to the Indians. W. C. Bompas, Bishop of Athabasca, boasted of his church's Orphan Asylums and Industrial Schools in 1880: 'The children whom we have brought up are no longer Indians & at the time of leaving our Establishments, the boys ... wish to live like us Whites and they are able to do so.'<sup>(25)</sup> The Bishop wanted to bring Indian children into their 'Establishments' at the age of five and keep them, with government financial assistance, until they were twenty-one. Davis and Zannis (1973:102) condemn the modern residential schools for the same reason that Bishop Bompas praised his own: 'The native children are forced to change their habits and characteristic cultural expression, eat strange foods, wear western clothes, adopt different sleeping patterns, and adhere to a routinized schedule that includes chores unknown to their own community...'

Against the negative result of loss of cultural identity many observers have pointed to the positive beneficial effects of the residential school on the health of the Indian child. Writing about the school at Fort Resolution in 1930 the Medical Officer of the Great Slave Lake District observed that 'the children are looking well fed and a diet of meat twice a day does improve their health'<sup>(26)</sup>. Three years later the same doctor reported: 'The school children at the three

schools, Resolution, Hay River and Providence were examined and found well fed, showing it in their cheeks full of blood, and looking much better than the same age children, free to wander in the woods underfed.<sup>(27)</sup> At Fort Providence school in 1939 the 96 pupils were described as 'clean, bright and tidy. Their meals are prepared and served from a large kitchen by the Nuns with the help of the Industrial School girls... The food is of good quality and plentiful.'<sup>(21)</sup> By 1948 one medical opinion had it that the residential school was 'the most effective means at our disposal to improve the health of the children. They can be assured of adequate diet and complete medical care.'<sup>(6)</sup> This became official policy with respect to the residential schools, as the following memo shows<sup>(28)</sup>,

As our educational system is now set up we admit children to school hostels because there is no day school within a reasonable distance of their homes. In admitting them we assume guardianship to the extent of feeding, sheltering, sometimes clothing them and looking after their general well-being, for which no direct charge is made to parents and no account is taken of parents' ability to pay for these services.

By the end of 1960 eight hostels or student residences were operating in the Northwest Territories. In 1966 Ann Freyer, the Regional Dietician, toured the hostel residences and reported on the food services being offered there. In the western Arctic she visited Akaitcho Hall in Yellowknife, Breynat Hall in Fort Smith, Fleming Hall in Fort McPherson,

Bompas and Lapointe Halls in Port Simpson, Stringer and Grolier Halls in Inuvik. In all these hostels 1,059 children were in residence, their ages ranging from 6 to 21 years, a large number to be exposed to the food habits of the southern Canadians who administered the hostels. In all these residences Canada's Food Rules were followed and menus were based on regular consumption of milk, fruit, vegetables, cereals, bread, meat and meat substitutes.

At Breynat Hall, Fort Smith, to select one as a typical example<sup>(29)</sup>, there were 171 children aged 6 to 17 in residence plus 10 children from Fort Fitzgerald who had lunch at the school. Approximately three quarters of a pound of powdered milk per child per week was used, adequate for the junior girls and boys but considered insufficient for the older students. Fruit was served daily at the evening meal with fresh fruit twice a week and juice about three times. Potatoes and two servings of other vegetables were served daily. Rolled oats were served five times a week at breakfast, though other whole grain cereals were suggested as alternatives. Bread was purchased from Edmonton, and fortified margarine was the usual spread on it. Meat or protein alternatives were served twice daily, with cheese and peanut butter offered every day at breakfast. Eggs were offered three times a week and cheese once at supper. Vitamin supplement was given to all children and iodized table salt was used.

In general the dietician found a broadening of the children's dietary habits which would presumably be brought

home to the smaller settlements. It was also brought home to houses in the towns. During the survey of school-children's nutrition in 1965 the Chief of Education Division wrote to the Principal of the Joseph Burr Tyrrell School in Fort Smith, where Breynat Hall hostel is situated; 'I was extremely interested in the returns from Fort Smith, as they tend to reflect the influence of the hostel on the dietary habits of the native children, and it will be most interesting to see if this relationship is apparent throughout the school year' (30). At Fort McPherson there was direct interaction between the hostel and the children of the town. 'The hostel staff has offered to give any of the needy children from the town a daily hot lunch,' wrote the Welfare Teacher (31).

They are also willing to give them a weekly shower and supply them with clothes while they keep the dirty clothing for washing. During the last two weeks the teachers visited every native home in the community to acquaint the parents with the help the children could get from the hostel. Many parents are anxious to have their children receive this help. Aside from the noon lunch the teachers are serving daily hot cocoa and biscuits to the town children at recess. These two lunch programs are very helpful to the undernourished children.

Growing children suffered most from poor nutrition during the hard years in the Canadian North in the late 1940s and early 1950s. In 1952 the Welfare Teacher at Aklavik reported (32),

Early in January, 1951, I noticed that some pupils were pale, listless and sometimes fell asleep in school. I visited many of the homes, and talked with the traders, who told me half the people were practically starving. There were no caribou to speak of that winter, and no one here fishes through the ice... So I decided to give... the [children] something more nourishing with their morning cocoa and pilot biscuit.

Hot cocoa and pilot biscuits were served to children during the winter. The biscuits served to school-children in the morning were, since 1942, special biscuits 'made from raw pulped carrot, soy bean flour, oat flour, brewer's yeast and Canada Approved Vitamin B flour' (Canada, Department of Citizenship and Immigration 1965:24). This recipe was worked out by Dr L. H. Newman, Dominion Cerealists at the Experimental Farm in Ottawa, and issued initially to children in 125 out of approximately 300 schools in the Northwest Territories<sup>(33)</sup>. The government's chief nutritionist, Dr L. B. Pett, considered that in a general way any step of this nature was a good thing if it provided sufficient nutrition to overcome deficiencies met elsewhere<sup>(34)</sup>. The benefits were increased if the children learned something about what foods to eat so that they could pass on this knowledge to their contacts even after leaving school. But there was a danger in this particular case.

No matter how nutritious a biscuit is prepared the giving of a biscuit and tea seems to me to be admitting that nutritional improvement of the diet must be made without the introduction of any



unfamiliar foods, Normally we consider that children are particularly susceptible to learning about other foods and that they have a considerable influence on their families. On the other hand, I am reaching the conclusion in connection with our studies for you that improvement in dietary status can be achieved chiefly by emphasis on a return to native foods.

Hence to serve biscuits to children, especially with the backing of the school-teacher's authority, was to perpetuate and reinforce the belief in biscuits and tea as an adequate diet. The Administration thus found itself in a dilemma. There was no doubt that the new biscuit was 'much more nutritious than ordinary pilot biscuit providing as it does in one biscuit weighing 2 oz approximately 160 calories, about 2400 units of vitamin A, 72 units of vitamin B1 and 0.19 mgms of vitamin B2 or riboflavin' (Ibid). But to serve these was to advocate biscuits as part of good nutrition and, as Dr Pett pointed out, there was, in fact, no information on their actual value in maintaining health. They did not provide sufficient calories or vitamins to have any curative effect on any degree of malnutrition that might exist. Neither had they sufficient calories and vitamins to take the place of other desirable foods. Their main advantage was that they represented the best efforts then available to incorporate wholesome foods in a form familiar to the Indian.

The extra nourishment provided by these special biscuits was badly needed. At Aklavik, for instance, the Welfare Teacher found that 'Many of the children come from homes

where they are receiving destitute rations, and most of the other native children do not get sufficient nourishing food at home.(35). So lunches were organized for distribution to the children. 'There will be a real need for extra food for some of the day school pupils next winter, as there was last year,' the Welfare Teacher reported in April 1952. 'I raise money through dances, bridge, etc, for this -- last year about \$200.00 was spent on such things as cheese, bread vegetable soup, sardines, etc.(36).

In this, Aklavik was typical of a growing number of day schools where lunches were added to the normal morning snack of cocoa, biscuits and usually vitamin pills. From Fort Simpson, for example, the Welfare Teacher reported in December 1951(37),

I have added organized hot lunches to the agenda for smaller children living quite some way from the school. These are conducted by the older girls of the school with the co-operation of the customers themselves. We have been feeding twelve to fourteen Indian and half-breed children all winter and I am glad to say that the project was worth the effort. Children learned to enjoy foods which they had never eaten before and for which they had to develop a taste. Cheap and nutritious dishes were prepared by Mrs. Bleiler in the kitchen of the residence. The serving was done by the older girls. Manners and manner of eating were much improved and to date everyone just loves cod liver oil, which is served at the beginning of the meal. This is one reason why I decided to serve these lunches. Mothers complained that their children would not take their vitamins. The other factor which made me decide was the observation that many of these children had little or no lunch when they went home.

It is worth noting in this report from Fort Simpson that in the perception of the Welfare Teacher the children learned to enjoy foods which they had never eaten before and for which they had to develop a taste.' Presumably that taste, once acquired, would remain with them and be passed on. In this way dietary patterns were changed at school at an early age and then spread through the population. Furthermore, manners and manner of eating were much 'improved'. This obviously means that Indian children were acquiring the table manners of white children and their parents.

In 1953 Indian Affairs Branch allowed a 'limited supply of funds for school lunches for Indian children', (38). Schools like that at Hay River, which had not been organizing school lunches on a private voluntary basis, started distributing lunches. 'One full meat sandwich is given to each child every day at noon,' wrote the Welfare Teacher at Hay River (Ibid). 'The children supplement this by bringing some lunch of their own. Instead of candy children are encouraged to buy apples or oranges with any spending money they might have. This has been very successful so far. The lunches are made up (by me) each day before school. Cocoa will be supplied next month.' At Fort Franklin a lunch of fish or meat and porridge, biscuit and milk was served at the school every day in addition to the usual morning snack of biscuits and cocoa. At the morning meal each child was given a vitamin pill. The Welfare Teacher believed that this accounted 'in a great measure' for the large attendance at school (39).

In 1955 the Department of Northern Affairs and National

Resources assumed responsibility for the education system in the Northwest Territories. On 8 February 1957 Treasury Board Minute 510420 gave authority to the Department 'to provide noonday lunches to children attending day schools operated by the Department with the total annual cost being approximately \$10,000.<sup>(40)</sup>.

This authority regularized the procedure which had been followed for a number of years, namely, to have noonday lunches provided in federal schools at a cost of approximately \$180 per classroom per year, and in part-time Mission schools at an annual cost of \$125 per classroom. The funds provided are used to purchase biscuits, rolled oats, salt, cocoa, sugar and powdered milk... the items being issued on the basis of actual school enrolment. At a few centres, where it is considered that the children do not obtain a balanced diet at home, supplementary items such as flour, lard, jam, dehydrated vegetables and reindeer meat have been included.

The school lunch programme improved everywhere as a result of federal assumption of some of the financial responsibility. Juice, soup, meat and vegetable, pie or other dessert, bread, soda biscuits, milk, cocoa, tea or coffee appeared in various combinations on the noonday lunch menus at schools across the Northwest Territories<sup>(41)</sup>. At Hay River, for example, the Home and School Committee decided that the old supplemented lunches at the school were not adequate and initiated 'a more substantial noon lunch program'<sup>(42)</sup>. The revised menu consisted of thick vegetable soup, two sandwiches, a cookie, an orange or apple and cocoa. The fruit was included on the advice of the doctor who observed that many of the children were



suffering from a lack of vitamin C. The sandwiches were made with eggs, meat, and mixed peanut butter and honey in rotation. At Port Norman, where two cases of undernourishment among the children had been investigated and milk powder given out to the parents<sup>(43)</sup>, the school lunches in January 1959 consisted mainly of porridge and milk.<sup>(44)</sup> This was simple fare compared to what was offered elsewhere. Nevertheless, it was 'very much appreciated' and almost all the children joined 'the long queue each morning.' 'Children frequently come to school with very little breakfast,' the Welfare Teacher commented, 'and of course there are many Oliver Twists to cater for.'

School lunches, like diet in general, were subject to local geographical and seasonal variations in the supply of foodstuffs, so that the elaborate menus available in places like Yellowknife could not always be duplicated in smaller and more remote settlements like Fort McPherson<sup>(45)</sup>,

Limitations in variety of fresh foods is understandable because of the great expense involved in shipping such items to McPherson. And such items when coming by air have to be cared for between planes at Inuvik, which is usually overnight and may be longer. The normal air services are not prepared to do this adequately. Food stuffs received on the barges in late summer do not last the full school term.

In many cases the items coming by barge were not usually the same season's produce because the barges left before these were ready<sup>(46)</sup>. As a result the more isolated settlements had to rely largely on non-perishable items. At Lac la Martre,



for example, the foods recommended for summer school lunch menus were pilot biscuits, Fry's cocoa, white and brown sugar, powdered milk, rolled oats, Lipton's dehydrated chicken soup, Minute rice, raisins, corn meal for bread, margarine and barley<sup>(47)</sup>. Also called for was any meat base available for making soups with dehydrated potatoes, onions, barley, etc. But Bovril was ruled out because the Indians did not, with emphasis, like it, nor did many enjoy consommé.

But in spite of restrictions on the availability of fresh produce school lunches 'proved to be the main source of nutrition for the majority of the people' (Ibid). Similarly at Jean Marie River<sup>(48)</sup>,

Dietary habits among the native peoples here at Jean Marie River is [sic] very very unstable. Some southern citizens would be amazed at the low protein and vitamin meals which the average child here consumes and goes forth to do a day's school work.

For some families the only "regular meal" the children have is the Noon-Day lunch at school. Infants are poorly fed and as a result easily catch sicknesses and skin infections; which are prevalent in the community because of low vitamin intake.

Even local sources of meat were not always available to the school-children. For example, giving caribou meat twice a week in school lunches, as was done at Fort Franklin, had to be stopped because Section 26(2) of the Game Ordinance made it illegal for anyone to have caribou meat 'in his possession in or on the premises of a hotel, hostel, restaurant,

public dining room, school, hospital, camp or dining room of a mining, logging or other commercial or industrial establishment.<sup>(49)</sup> The caribou situation was described as serious and measures had to be taken 'to restore the herds to their former abundance. Any relaxation of the above-mentioned restrictions would inevitably result in requests on behalf of other schools, hostels and hospitals in the Northwest Territories' (Ibid).

The danger in giving Indian children non-perishable and processed foods in school lunches was to reinforce the idea that these were good and desirable foods. There can be no doubt that children learned new eating habits at school which they carried with them into adulthood. It was essential that these early acquired habits be good ones. But all too often this could not be the case, even where administrators were aware of the danger. As it happened, many of the present eating habits and dietary preferences of the Indian were acquired in school or school residences. Most important was a rejection of traditional food consumption patterns in favour of those of the dominant southern Canadian cultural system.

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## Chapter Five

### Social factors

#### 5.1 Introduction

Mankind everywhere exists in structured social groups or networks, 'relevant series of linkages existing between individuals which may form a basis for the mobilization of people for specific purposes, under specific conditions' (Whitten and Wolfe 1974:720). The basic purpose for which individuals are mobilized is the quest for food, the particular ecological adaptation of the people using a particular technology. The orderly relationships among individuals and groups are maintained by the social system, the total pattern of social organization in both its structural and organizational aspects. This total pattern of social organization constitutes man's social adaptation to the environment. Four components make up man's social adaptation: demographic, political, ideological and economic.

The demographic component comprises the statistical characteristics of the population itself: its size, density and distribution, the size of local groups and families, the composition of the population in terms of age structure, sex ratio, marital ratio, health, education and ethnic make-up. These characteristics largely depend on fertility and mortality

rates, population control behaviour and migration patterns, and these in turn are influenced by the ecological adaptation of the people and their ideational level in terms of educational system and intellectual sophistication.

The political component of social systems appears to be mainly a function of increasing population pressure. Political adaptation involves the organization and management of the public affairs of a society, the network of social relationships that allows for the co-ordination and regulation of behaviour related to the maintenance of public order. This inevitably involves the problem of how power and authority are distributed and exercised in society, and this problem is intimately related, not only to the demographic component of society, but to the ecological, technological and ideological aspects.

The ideological component of society comprises the belief systems subscribed to by its members. There is usually a dominant ideology and others subordinate to it, all more or less linked to and legitimating the political and economic interests of the groups that subscribe to them. Once closely bound to the ideational adaptation of society, the two are now more often in conflict and it is better to consider them separately in studying modern populations.

Finally, the economic component of social adaptation involves the creation and maintenance of systems of exchange. The economic component refers to the interlocking of production, consumption, needs and wants in long-term arrangements for the distribution of goods and services

throughout the population unit.

## 5.2 Political factors

MacNeish (1956:135-136) distinguishes two sorts of political groups among the Athabascans. The basic unit was the band, a group of people who camped together and shared the take of large game. This band might comprise only one single nuclear family or be as large as a score of individuals, but these were opposite extremes and neither group was stable as regards numbers over the longer term. But the band 'had a sort of corporate life that commonly extended over a continuous and relatively long interval of time. The other type of group was intermittent and brief in nature; it was also characteristically larger than the band, drawing for its personnel either selected members from several bands or several band complements in their entirety.' MacNeish calls these 'macro-assemblages'. Balikci and Cohen (1963:38) found this two-fold grouping among the Hare Indians round Fort Good Hope. Traditionally these Athabascan-speaking Indians moved about the area in small groups, hunting, gathering and fishing in annual cycles. Then larger groups congregated at fish camps on the Mackenzie in summer and for regular and sporadic hunts. 'Reportedly the entire Hare Indian tribe gathered together for ceremonial purposes several times a year.' 'Aboriginally the mobile camp was perhaps the temporally and socially dominant type of local grouping,' write Helm and Damas (1963:11). Then at such times of the

year as the fall fishing 'larger aggregates of Athapaskans came together for at least several weeks.'

Apart from the ceremonial congregation in the Hares the major determinant of these political groups among the Déné was the food quest and, as MacNeish (1956:136) emphasizes, 'their formation often determined how much food would be acquired by the members.' Those groups directly involved in the food quest were those macro-assemblages, 'continued from aboriginal times', large numbers from several bands of edge-of-the-woods people drawn into a camp for large-scale caribou hunts. Some of these people in the wooded Mackenzie area drew together seasonally in large assemblages to exploit fish runs.

But within these northern Indian groups there was little role differentiation involved in the process of making and implementing decisions (Helm and Leacock 1971:367). According to Cooper and Pénard (1973:76) the social and political condition of the Déné 'has always been one of pure "anarchy".' This may be putting it too strongly. The responsible adult males functioned as a policy-making group through the achievement of consensus.

It is plain that the ultimate locus of power and decision in Athabascan society was in the largely unorganized sentiments and opinions, coupled with not always effective diffuse sanctions, of the social body as a whole. These probably found their most effective expression at those times when the adult men of a group informally came together to exchange news and views of current events and problems, even as they do today.

(MacNeish 1956:138)



In earlier times MacNeish (Ibid:140) distinguishes three kind of 'at least putative leadership': the leader of the basic band, the trading chief and the war leader. The shamans, those who 'by virtue of their powers of prediction and manipulation of the supernatural exercised influence over group behavior might be considered a fourth variety.' Of these the first is directly and the second indirectly involved in the food quest. The third and fourth may also have an indirect impact on the food quest but so marginally, especially in the case of the war leader who was so rarely required among the Déné, that they will not be discussed here.

The leader of the basic band emerged naturally from among his fellows through proving that he was a good hunter. When this happened 'others made requests of him to join him and to hunt with him in his territory. Thus some bands were formed and the owner owner of the territory obtained the position of chief, indicating to each one where he was to hunt' (Cooper and Pénard 1973:78-79). Obviously the best hunter in a group was the one best qualified to direct a hunting party in order to obtain the best results in terms of food acquisition. A good hunter in such a position could make the difference between eating and starving. But even the recognized leader did not presume the right to dominate others (Helm and Leacock 1971:368). He had no really vital function in ecologic or other matters. His decisions regarding change of hunting grounds came closest. As MacNeish (1956:151) points out: 'He was a superior provider and therefore, in a society where communal distribution of large game is a

cardinal rule, a good man to fall in with.' But it was quite likely that in many hunting bands no adult male could be singled out as consistently exercising more influence and being accorded ~~more~~ deference than any other. Among the northern peoples 'the ethic of intra-community and interpersonal relations' was 'every man his own boss' (Helm and Leacock 1971: 367-368).

The trading chief was the intermediary between the traders and the Indian band. He was thus indirectly involved in the food quest, for upon the amount of money he managed to persuade the trader to give or to advance depended how much food the band members could buy at the store or how many guns and traps and how much ammunition they could purchase. As Mason (1946:34) describes the trading chief -- as of 1913 -- whatever authority he possessed was generally invested in him by the fur traders and the Canadian government, who found it advisable to deal with an established representative.' Thus the chief is given a uniform and insignia of office and is issued special rations by the traders and the government treaty officer. He is more or less chosen by agreement between the members of the band and the traders but his authority hardly extends beyond representing his band with the government and the fur companies.'

Changes in the traditional political adaptation of the D  n   came first of all with the change to a hunting and trapping ecology and the appearance of 'trading chiefs'. But the most important changes came after the signing of Treaty No. 11 in 1921. That was the last treaty involving

major Indian populations, the Athabaskan speakers north of Great Slave Lake. Only after that date, as Helm and Leacock (1971:357) observe, were the first representatives of governmental authority, in the form of the RCMP, established at the fourteen main trading settlements of the Mackenzie River region. When the Indians signed Treaty No. 11 they gave up the rights to their land in return for the various services provided by the Indian Affairs Branch of the Department of Citizenship and Immigration. All Indians living within a treaty area were grouped into bands with an elected chief and two councillors. The policies of the Indian Affairs Branch have since been administered by an Indian Agent who calls band meetings several times a year. The band council acts in a liaison capacity with regard to relations between the band members and the Indian Agent. The chief in this new arrangement is really the former trading chief in modern disguise. 'The ideal of a good chief is one who does not interfere with the lives of individuals yet stands up to the Indian Agent and helps the villagers to obtain as much as they can in the way of assistance from Indian Affairs Branch' (Oswalt and Vanstone 1963:28). Substitute 'trader' for 'Indian Agent' and 'trading company' for 'Indian Affairs Branch' and one has in this quotation an equally valid description of the former trading chief.

All available data, then, lead to the conclusion that neither the kindred per se, nor, except in the segmental exercise of hostilities against other tribes, did the macrocosmic group or the tribe have a

political component. To all knowledge... even the government invention of regional "chiefs" and councils, appointed or elected, has so far effected no significant change or innovation in the political orientation of these Athabascans at the regional or tribal levels.

(MacNeish 1956:135)

On the superficial level of structure there is truth in this statement, as already suggested. But at the deeper, more fundamental level of function it is difficult to agree with it. In fact, with regard to the food quest, in which the chief was most directly involved as chief, there has been a very significant change or innovation in the political orientation of these Athabascans. For in many cases 'the leader of the basic band', even if only voicing the concensus of the adult male members of his group, has had what authority he possessed undermined, if not completely negated, by decision-makers in Ottawa.

When the Indians signed Treaty No. 11 and the earlier Treaty No. 8 they 'received the solemn guarantee, given in the name of the Crown, not to be molested in their habits of life as bush men, living through hunting and fishing, and that they would be protected against competition by the whites and their methods of exterminating fish and game'<sup>(1)</sup>. Specifically the treaties granted to the Indians<sup>(2)</sup>,

The right to pursue their usual vocations of hunting, trapping and fishing throughout the tracts surrendered as heretofore described, subject to such regulations as may from time

to time be made by the Government of the country acting under the authority of His or Her Majesty and saving and excepting such tracts as may be required or taken up from time to time for settlement, mining, lumbering, trading or other purposes.

But there was apprehension at the time when the earlier treaty was signed in 1899 that the hunting and fishing of the Indians would be curtailed<sup>(3)</sup>.

The matter came to a head when the federal government transferred control of natural resources to the provincial governments and made no express reserve to protect the rights of the Indians<sup>(1)</sup>. The Indians had no right to vote, and the voters, when they newly arrived, would not agree that it was the provinces' duty to guarantee the way of life of the Indians. White trappers invaded the hunting territories of the Déné.

Against this background the government passed the Northwest Territories Game Act which was given the royal assent on 20 September 1919<sup>(4)</sup>. Four years later administrative offices were established at Fort Smith and Fort Norman and steps were taken to implement the recommendations of a Royal Commission which in 1919 called for a survey of all wild life resources on which the Indians depended for their livelihood. To this end a number of investigations were made by special officers appointed for that purpose, and recommendations regarding game conservation methods, based to a large extent on information gathered by these investigators, were made to



the Northwest Territories Council. The investigators' reports revealed the necessity of adopting stringent regulations to conserve the wildlife for the Déné who depended on hunting and trapping for a livelihood and who were unfitted to engage in other occupations. Among the more important measures adopted on the recommendation of the Northwest Territories Council with the object of conserving the wildlife and thereby improving the ecologic and economic condition of the Indians were the following:

Wildlife reservations	Sq. miles
Wood Buffalo Park (area in NWT)	3,625
Thelon Game Sanctuary	15,000
Native hunting and trapping preserves	
Yellowknife Preserve	70,000
Slave River Preserve	2,152
Peel River Preserve (area in NWT)	3,300
Arctic Islands Preserve	439,105
Mackenzie Mountains Preserve	69,450
Reindeer grazing reserve	6,600
Total area of wildlife reservations	609,222

Thus 45 per cent. of the area of the Northwest Territories was included in areas reserved for wildlife.

With a view to further protection of the game and in the interest of the native population regulations were passed by the Northwest Territories Council on 19 April 1938 restricting eligibility for hunting and trapping licenses to residents of the Northwest Territories who already held such licenses and who continued to live in the Territories and to the

children of those who had lived in the Territories for four years provided the children continued to live there. Strict regulations were also imposed on the use of the aeroplane in hunting.

This kind of decision-making and enforcement by government officials was the beginning of greater interference in the day-to-day decision-making of the Indians themselves. The measures outlined above, in view of the continuing encroachment of white hunters and trappers into the Northwest territories, were no doubt of great benefit to the Indian, but the fact remains that they resulted from decisions taken by the new government authority and not by the Indians.

But this was only part of the process of political change. In order to help conserve the numbers of fur-bearing animals the government introduced restrictions on trapping and killing in terms of closed seasons, bag limits and other game regulations. To conserve beaver, for example, regulations provided for the issue of special beaver permits and limited the number of animals to be taken to 15 for each permittee. Help to conserve the marten population came more indirectly. The marten was increasingly sought after in the 1930s and constituted about half of the fur catch of Indians and half-breeds in the district between Norman and Arctic Red River. The greater part of the range of the marten was included in the Mackenzie Mountains Preserve, established on 3 May 1938, and under this additional protection the status of the animal was expected to improve.

In hard times these and similar game restrictions led

to difficulties among the Indians dependent on the game. To make matters worse, the government was continually extending and shortening closed seasons or increasing and decreasing bag limits and thus causing confusion in the minds of the Indians. In some cases changes in regulations benefited some Indians but discriminated against others. For example, in the winter of 1937-38 the government extended the hunting season on muskrats which the Bishop of the Mackenzie described as 'a just measure, which will be much appreciated where rats are plentiful' (5). But in the whole district inhabited by the Slave Indians there never had been any big amount of 'rats'. Here the Indians would have appreciated much more the full restoration of the bounty on wolves and an extension of beaver hunting. The Slave Indians claimed that

there is practically nothing but beavers to be had now for food and fur in their district; beavers are constantly increasing in this part of the country; that if they were, each of them, granted thirty beavers a piece instead of fifteen, even if they were granted the exclusive rights of killing beavers on their own judgment, beavers would never disappear from this part of the country.

(Ibid)

The alternative was 'to be put "wholesale" on relief' and already the Indian Agent had had to send relief by plane down the Mackenzie River and was to send more up the Liard River.

The crucial words in the extract quoted above are 'rights

of killing beavers on their own judgment'. These were the political rights that the Indians no longer possessed, the rights to arrive at day-to-day decisions on where they would hunt and what they would catch. A consensus arrived at in an Indian camp, based on the experience of one particular leader or on that of a group of conferring adult male hunters, was no longer the functioning political system of the Déné. These decisions were taken in Ottawa, and the Déné were forced to obey, even though they themselves did not agree with them. This is not to argue that the game regulations were bad or good; simply that the political adaptation of the Déné had undergone a significant change and one that fundamentally affected the nutrition of the Indian.

Indians were constantly making complaints to Indian Agents regarding closed seasons on animals like martens and muskrats and the limit on the number of beavers allowed on each permit, reduced by two in 1943 and by a further three in 1944. For example, at Hay River the Indians again requested 'that the Agent ask the Government to have open Season for Marten and to increase the quota of Beaver to 15 instead of 10... [Chief] Lamalice suggested that Marten should be closed to the White Man and restrict their catch of Beaver to very few, but to allow the Indian to catch 4 to 5 Marten and 15 Beaver, because the White Man has other means of making a living while the Indian has to depend on Wild Life'.<sup>(6)</sup>

The Dog-Rib Indians do not seem to believe that the increase in wild animals is due to the birth-rate and the protection given

these animals through trapping and hunting restrictions. They seem to believe that the animals are always there but at certain times, for some reasons that the Indian cannot explain... they are hard to trap.

(Ibid)

The government's response was given by the Superintendent of Wood Buffalo Park<sup>(7)</sup>. Marten were simply not plentiful enough to permit their being trapped and unless protection was continued for a few more years there was great danger of this species of fur-bearing animal's being exterminated in many parts of the Territories. As regards the beaver, a quota of ten for each holder of a permit was considered sufficient, especially with the high prices then being paid for beaver pelts. Wildlife records showed in any case that many Indians did not take even ten beaver in a year. This was fortunate, for the beaver population in the Territories was 'at a critical point.'

Dr Mulvihill, the Indian Agent at Fort Resolution, believed that the ones who suffered most from the game laws were those Indians living in or near settlements because, unlike those in outlying districts, 'their diet, composed of fish and bannock, during the summer months, is not complete.'<sup>(8)</sup> But even this argument did not bring about any alteration of the restrictions on hunting and trapping. The government offered as an alternative what Bishop Fallaize had foreseen almost a decade before<sup>(5)</sup> that the Indians who were not getting enough food from the land 'be put "wholesale" on relief.' Yet this did not appeal to Dr Mulvihill. 'I would not like



to see these people put on rations,' he wrote; 'rather, for them to go back to the bush, or go hungry',(8).

The government's position was clear. Extracts from game wardens' reports, especially during the last half of 1947<sup>(9)</sup>, showed clearly that the ecological and economic conditions in many parts of the Western Arctic were very bad. Two factors were largely responsible for the situation: the scarcity of game and the decline in prices paid for fur. Crises like these would continue to occur as long as the Déné were dependent on fur and other wildlife resources, since some of these were cyclic in nature and because prices would always tend to fluctuate widely. History suggested that there had been crises of this nature in the Indian cultural system since time immemorial, but they received more publicity in recent times and were made more severe by widespread forest fires, by inadequate game management and by increasing human population size, both Indian and white. As far as the government was concerned these crises must not be met by any relaxation of the game regulations, for in their opinion this would only lead to further depletion and the results would be disastrous.

So restrictions were multiplied. During her period of field-work at Lynx Point in 1951-52 Helm (1961:17) found some restrictions attached to all food animals except rabbits and caribou. For fish, the sole restriction was forbidding the use of fish weirs or traps. Moose hunting was legal only in the winter and only one moose a year for each hunter could be taken. Ducks, geese and bears were 'open' only for a brief period toward autumn, and porcupines were 'closed' all year. Even the once universally important snare, if used against any large animal, was illegal. These restrictions thus

applied to many of the most important common sources of food for the Déné and forced the Indian people to rely more and more on store-bought foods. 'For a people who, by inclination and economic necessity, derive much of their sustenance from the game of the bush, the restrictions are a source of continual resentment and give rise to such ironic jokes as "they are going to 'close' mice next"' (Ibid).

The problem, as far as the Déné were concerned, was that decisions arrived at by the government and then forced on them by game wardens and RCMP officers, as representatives of the new political system, were not fully explained to them. They had no part in the decision-making process. A consensus was reached in Ottawa to which they or their leading members were not a party and orders passed along to them to behave in a way that they could not understand. The failure to explain government decisions was criticized by many. The Superintendent of Wood Buffalo Park, for example, wrote: 'It is apparent... that the Indians need to be better informed of the government's reasons for introducing certain regulations.'<sup>(10)</sup> Chief Glosemer Lamallice of the Hay River Indians protested: 'These complaints have been given to the Indian Agent year after year but no changes for the better have been made and no answers have been given to our questions.'<sup>(11)</sup> So the Indians 'were out of sympathy with the Game Administration.'<sup>(12)</sup> They

were of the opinion that the Game Regulations, and amendments thereto, were made without them [sic] being consulted and that no game warden,

game officer, or biologist, ever took time to explain the regulations to them or ask their views. They were just told what the regulations would be, and changes in the regulations were usually made at short notice, and sometimes during the hunting or trapping season. The Indians often received word of these changes long after they were supposed to have come into effect because they had left their settlements at the time they were announced. He [Superintendent of Indian Agencies, Yellowknife] said the Indians felt they were being slighted and consequently were inclined to be non-co-operative with the Game Administration. He suggested a greater period in time between the promulgation of a game ordinance and the date when it would come into force, and closer personal contact between game officers and the natives.

It was easy for the Indians to feel aggrieved. Some of the treaties they had signed promised continual hunting and fishing in language that may have seemed reasonable at the time but that was shown by later experience to have been extravagant. Treaties guaranteeing hunting privileges were of no value if there was no game to hunt, and the various restrictions that were placed on hunting in the Northwest Territories were instituted with a view to maintaining a stock of game. Many Indian treaties did in fact make hunting rights subject to such restrictions as might be found necessary to apply to the region generally, but in any event the government felt that it was not in the interest of the Indians that they should be allowed to carry on hunting and trapping activities which would lead to the destruction of the animals on which hunting and trapping depended. For this reason the take of moose, for example, was restricted to one

per hunter per year and the Indians naturally complained<sup>(11)</sup>. But a government spokesman retaliated that one 'goes further than none would go, and there would soon be none if unrestricted hunting was permitted...'(13). Similarly the close seasons on beaver and marten were applied because the populations of these animals had fallen so low through over-hunting 'that there was acute danger of their being extirpated.' The object of the close season was to allow these animals to develop 'hunnable populations' from which the Indians could be permitted to take an annual surplus.

If the situation can be continually explained and made clear to the Indians, and their co-operation can be obtained, the work of building up and maintaining adequate wildlife populations will be greatly helped and expedited. Where necessary restrictions cause the Indians to suffer privation, the remedy is not to take away the restrictions and permit the wildlife populations to be wiped out, but to extend to the Indians the help necessary to tide them over the period of want. It seems quite likely from information available that in many instances the Indians, instead of co-operating in conserving the wildlife that is so necessary to them, have hunted in excess of what is authorized by the regulations, and have been responsible for destructive forest fires.

(Ibid)

### 5.3 Demographic factors

One of the reasons frequently given for the decline in game animals and the need for restrictions on hunting and trapping is the increase in the human population,

both Indian and white. But available population figures, though questionable as most, and especially early, demographic statistics usually are, suggest an overall decline in the Indian population from the 1850s to the 1950s (Table 5.1).

Table 5.1  
Indian population of the Mackenzie River District

Year	Population	Source
1858	4,609	(14)
1895	4,376	Canada, Dept. of Citizenship and Immigration 1965:27.
1912	3,589	do.
1921	3,853	(15)
1931	4,048	(16)
1939	3,724	Canada, Dept. of Citizenship and Immigration 1965:27.
1941	4,090	Wherrett 1945:50
1954	4,023	(17)
1959	4,459	(17)
1964	5,235	Canada, Dept. of Citizenship and Immigration 1965:27
1972	6,829	Canada, Dept. of Indian and Northern Affairs 1973:31.

Diseases like influenza, tuberculosis, pneumonia and others were the major cause of the population decline. The lowest point in this decline has been given as 1939 in the Mackenzie, with 3,724 Indians, and 1929 in the Yukon, with 1,264. The recovery of population numbers had become obvious in the 1950s. An official report in 1959 noted<sup>(17)</sup>,



At present the Indians of the Northwest Territories are grouped in twenty-four localities, mostly at various points along the MacKenzie and around the shores of Great Slave Lake. A recent survey records a population of 4,459 which represents an increase of 18% since 1949, but is approximately 13% larger than in 1954 when the population was 4,023. This rate of increase in population is a trend likely to accelerate in the future as medical and welfare services available continue to be extended and improved.

If the figures given here are correct then the 13% increase calculated from 1954 to 1959 is wrong. It should be 10.8%, or 2.6% per annum. But the statement at the end of the quotation was prophetically correct. Over the next five years to 1964 the rate of increase leapt to 17.4%, or 3.5% per annum, a phenomenally high rate of increase and one that would double the population in 20 years. During the next eight years the rate of increase rose again to 3.8% per annum which gives a doubling time of only 18 years. Obviously such a rapid rate of population growth is bound to put pressure on local resources, as Helm (1961:53), for example, noted at Lynx Point. This would increase the demand for imported foods which, on demographic criteria alone, should be dated to the 1950s. This coincides with Asch's (1976:11) findings on other historical evidence.

The impact of growing population numbers on food consumption patterns was augmented by another simultaneous demographic change: the concentration of the Déné into permanent settlements. A third demographic factor of importance in dietary habits, but one that started earlier than

the other two, was the increasing proportion of white southern Canadians in the ethnic composition of the population of the Canadian Sub-Arctic.

Traditionally, as mentioned in the previous section, the Déné moved about the region in small groups, hunting, gathering, fishing, coming together in larger aggregations for more communal hunting and fishing on a seasonal basis. Helm and Damas (1963:11-12) regard the introduction of the fur trade and the access to new technology that it permitted as being the prime forces in the increasing stabilization and sedentary of the base community of the Athabascans. This community was often established 'in a different sort of locale than those frequented in aboriginal and early contact times' (Ibid:13). The result is 'a compromise between the pull of the trading centre and the attraction of those areas containing marketable and subsistence resources.' The fish lakes of the interior of the Mackenzie region are the most noticeably rich and reliable in terms of providing staple food. This is why the aboriginal pattern was to winter at a 'fish lake' and thus assure a good supply of food for both the Indians and their dogs. The lakes were rich in fish because of the clear, cold water, while the rivers gave poor fish, 'only suckers and chubs',<sup>(18)</sup>. But the fish lakes often do not allow easy travel to a trading post. The Indians of the Mackenzie area today therefore are, if not settled at the trading post itself, with few exceptions settled along the navigable waterways leading to the post rather than in the richest fish, flesh and fur areas per se.

With the decline in the trapping ecology other factors tended to draw the Déné into population concentrations. Vanstone (1963:160) lists four factors 'not specifically connected with the fur trade' that were responsible for the recent concentration of a permanent population at Snowdrift. These factors have a general application and are not restricted to the Snowdrift situation. They are: the increase in government services that have reduced reliance on income derived from trapping; the federal school; the improved housing; and wage employment. As a result the total area trapped and hunted by Snowdrift Indians has been shrinking steadily in recent years and in particular since the Indians began to live permanently around the trading post. The payment of Family Allowances on a monthly basis provided an additional form of income as did other social assistance, pensions and welfare all of which reduced reliance on trapping and increased the dependence on store-bought foods or relief rations, both of which were almost entirely southern Canadian foodstuffs. The Yukon Native Brotherhood (1973:11) believes that the Indian Affairs social programme, with all its benefits in terms of financial assistance, welfare, housing and education, 'was (and still is today, even more than ever) used as a bribe to get Indian people to move in from the bush.' The Berger Inquiry (1977:103) found that in spite of this concentration of the Indians into settlements the people continued 'to use the entire area that their ancestors used.' But this does not mean that the per capita supply of food from that area is the same, nor that dependence on store-bought foods

has not increased. In fact, it is obvious from statements concerning diet elsewhere in the report of the Berger Inquiry that reliance on country food has declined, not remained the same. This is supported by other testimony. Helm (1961:32), for example, found that in order to supplement the insufficient supply of river fish, the men of Lynx Point went to a 'fall fishery' on Great Slave Lake. But even there 'the yield is in some years insufficient for the winter's needs.' There is no doubt that increased demographic concentration of the Déné has led to increased use of store-bought foods, whether paid for by the earnings of trapping or of wage employment or with pension, Family Allowance or other social welfare cheques.

A further factor in settlement living is the presence of high concentrations of white people who will influence Indian eating habits if not so much through competition for the game animals of the region -- though this cannot be completely ignored -- then certainly by setting an example of food preferences which the Indian tends to imitate. The presence of white men and their influence on eating habits in the North has been a factor of major importance since the first fur traders and explorers moved into the Mackenzie and Yukon basins in the eighteenth century. In fact even before the Indians came into direct contact with any white man the influence of the traders was felt far beyond the most remote outpost of the fur trade. As the Yukon Native Brotherhood (1973:7) say, 'We did not see these people but they changed our way of life.' Then 60,000 of them invaded

invaded the Yukon to search for gold and the Yukon Indian has never been the same.

But the slower, more persistent and more permanent infiltration of the Canadian Northwest by white Canadians, Europeans and Americans had a much more lasting effect than the massive four year invasion of the Yukon that was over in another half dozen years. The traders, the missionaries, the police, the government officials, the scientists, the miners, the industrial workers slowly grew in numbers, and many came to stay, to raise families, to breed an ethnic group of white northerners whose roots were in the northern earth though not so deeply nor so firmly bedded as those of the native Déné.

For most of the first half of the twentieth century the white ethnic minority made up between a seventh and a fifth of the population of the Mackenzie area, but in some settlements the proportion was much higher. In Fort Smith in 1921 it was over 41 per cent (168 out of 405) and in Fort Simpson a little under 30 per cent (144 out of 507)<sup>(15)</sup>. Of the population over twenty-one there were more whites and half-breeds than Indians (96 to 90)<sup>(19)</sup>. Just before and during the Second World War the number of white residents in the Mackenzie increased rapidly with oil and mineral developments and military establishments. Along with the white men came the houses, the stores, the facilities and services, the whole way of life of white people, or as much of it as could be transported to the North. This included not only foodstuffs in an ever-widening range of modern processed, packaged and convenience foods, 'junk' foods and snacks, soft drinks and



alcohol, but the television, radio, newspapers and magazines whose advertizing capacity was exploited by the food producers and distributors to sell these products. The message of the advertisements reached not only the white residents of the North but the Indian as well.

At the same time as imported foods were moving into the Mackenzie in increasing quantities the native food resources were declining. Among the early white immigrants into the forests of the Déné were trappers and hunters like themselves but with more deadly technology. A letter from Bishop Breynat, an early champion of the Indian against the activities of the white settlers<sup>(20)</sup>, was prophetically correct<sup>(21)</sup>,

This winter, we have some thirty six white trappers among our native population. They have their camps in an area of about sixty miles from the delta up the Slave river. As a consequence not a single moose has been killed around the fort. Very fortunately rabbits are plentiful. Bad years will undoubtedly come again. It is feared that so many white men would be a heavy burden to the residents of the Fort.

In the winter of 1924-25 the RCMP reported that there 'now a great number of white trappers on the Slave and Mackenzie Rivers. All seemed to be making a very fair catch, especially in foxes, but nearly all said that, with the high costs of living in this district, they would make very little more than a "grub-stake" for next year.'<sup>(22)</sup>

Among the Déné the only recognized sign of property at this time 'was the opening of a trapline in the middle of the

forest' (Cooper and Pénard 1973:77). Traplines were considered private property and one of 'the bitterest complaints against the white hunters who entered their territory' was that 'they did not respect these traplines.' Another complaint was that the white men used modern technology and techniques to unfair and often wasteful advantage. They were unscrupulous men 'whose one idea was to make money. Now they made it want unconsidered' (Breynat 1938). Some of them became 'trapping "wholesalers"' who spread poisoned bait to kill the fur-bearing animals and 'trapped the country "clean" of game.' Similar accusations were made by other white residents of the Northwest, including Philip Godsell, in letters and memor to the government, but RCMP officers and Indian Agents, though they did not deny the use of poisoned bait by white trappers, nevertheless played it down considerably<sup>(23)</sup>.

In an interview with the Deputy Commissioner of the Northwest Territories Bishop Breynat further stated that a number of white trappers flew into the Northwest Territories from Fond du Lac, Goldfields and Chipewyan to a trapping area south of the Thelon Game Sanctuary<sup>(24)</sup>. They were experienced trappers with residence qualifications, but, according to the Bishop, they trapped the source of supply for the Indians to the south and west of them who were not sufficiently well-off to use a plane. In this way the source of supply was being depleted and the trapping south of the area was becoming poorer and poorer. 'When this area is once trapped out the Indians will be unable to obtain a living and will become charges of the government. The only suggestion to protect

these trapping grounds would be to make this area south of the Thelon Game Sanctuary a game preserve' (Ibid). Poisoned bait and aeroplanes were not the only unfair aids to the 'desire and greed of the white trappers' (25),

The Indian has the additional disadvantage of having to spend the best part of his time in the woods, on the lakes and rivers, in order to assure his family's daily food, whilst, generally speaking, the white trapper has no family with him and has taken the precaution of obtaining, at a much lower price than an Indian would pay, his full winter's provisions. Why be surprised if, in spite of the restrictive laws, very hard indeed on the Indians, the fur-bearing animals tend to disappear? The necessity of these laws never would have existed if the solemn promise of protection given to the Indians had been kept. One may go farther and say that it is doubtful if those laws have a sound basis when they are made to apply to Indians, in view of the promises which were solemnly made to them in the name of the Crown.

Similar complaints had been made in a report to the Administration in 1930 (26),

While the Indian is afforded exclusive rights in the Slave River, Yellowknife and Peel River Preserves, it would appear from personal observations that the non-resident non-British trapper is actually crowding the Indian out of some of the choicest trapping areas in the whole Mackenzie district. As a measure of protecting the Indian there should be some definite action taken to curtail any additional influx on non-resident non-British whites...

Supporting testimony came from the General Manager of Northern

Traders Ltd. 'The white men have reduced, through intensive trapping, the supply of fur bearing animals and regulations favorable to the natives will need to be enforced, to conserve to them sufficient fur bearing animals for their ordinary requirements of living'(27). But the Northwest Territories Council had already passed on 19 April 1938 stricter regulations on the eligibility for hunting and trapping licenses and severe restrictions were imposed at the same time on the use of aeroplanes in hunting.

The considerations that have guided federal and territorial game policy, as applied to the Indians of the Northwest Territories, are epitomised in a resolution passed unanimously by the Inter-Provincial and Dominion Conference in 1928(28),

Whereas it is recognized that most of the livelihood of the native Indians of Canada was obtained originally through some form of hunting, and that in unsettled districts in this country Indians are still largely dependent on hunting, and especially on hunting by means of traps, to provide them with the means of existence, and

Whereas the increasing white population of Canada and the increasing money value for fur is [sic] causing white trappers in many areas to invade more and more of those trapping areas on which the Indians depend, so that results unsatisfactory to both whites and Indians are obtained, and extreme hardship for the Indian may in many cases be expected to result from continuance of this confused and unregulated competition, and

Whereas restriction of trapping rights in and to limited areas leads to increased interest in the conservation and maintenance of a supply of fur-bearers on those areas,

Therefore be it resolved that this conference

approves a policy of setting aside, as far as practicable, in unsettled regions, certain suitable and reasonable areas whereon Indians only may be allowed to trap.

This was done and game restrictions were instituted and enforced. But unfortunately the government was open to the accusation of bolting the stable door after the horse was gone. The populations of game animals had already declined to numbers so low as to be considered 'critical' or to threaten extinction. This had been apparent as early as 1919<sup>(4)</sup> and it is doubtful if the blame can be levelled entirely against the white trappers. A sober assessment of the situation was given by a government officer in 1930<sup>(26)</sup>,

From personal observation during my connection with the Department I am of the opinion that in the North West Territories as well as in all other parts of Canada the indiscriminate slaughter by overtrapping, shooting during the spring and autumn season, disastrous fires and poison to a somewhat lesser degree constitute the major factors in the decrease of the beaver, as well as other fur bearers. Not alone, therefore, can it be said that the past shortage of beaver in the North West Territories is attributable to the influx of the white trapper, the Indian, forest fires, or any other lesser cause, but rather to a combination of conditions for which all must share a certain responsibility.

The various game restrictions discussed in the previous section had to be imposed in an attempt to entice the horse back into the stable. It returned slowly. In the meantime the Indian faced reduced native food supplies, increased consumption of carbohydrates, undernourishment and malnutrition. On top of



these the crowding of the Indians into insanitary housing in permanent settlements led to alarmingly high rates of mortality and morbidity, especially of tuberculosis. The increasing number of families where the head of the household was confined to hospital with tuberculosis or convalescing from tuberculosis meant increasing food relief<sup>(29)</sup> and thus increasing consumption of store-bought or imported foods. Prolonged stays in hospitals or sanatoria, usually as much as two years, were also certain to develop in Indian patients a taste for much of the southern Canadian food offered in these institutions.

#### 5.4 Economic factors

In traditional Déné society the major form of economic activity was food sharing. In any environment where food procurement was unreliable or unpredictable, means had to be found whereby everyone was assured of something to eat as long as there was something to eat in the camp. The hunter who brought back game on one day may not be so lucky on the next several days and the unlucky hunter had to be sure of getting a portion of the daily catch by others. Food distribution had to be arranged both within the community and over time. Delayed consumption and caching helped spread the availability of meat over time. Food sharing helped distribute meat equitably within the community.

As a general rule the harsher and more stinting the environment, the more elaborate were the rules and procedures

of food sharing. In North America the most inhospitable environment was that inhabited by the Netsilik and Copper Eskimos, and among them were to be found the most rigidly structured food-sharing systems (Balikci 1968). Among the Déné, whose sub-arctic ecology is not nearly so precarious as that of Arctic dwellers, food-sharing rules were not so highly developed. Mackenzie (1801:cxxv) describes a typical situation:

Sometimes they drive the deer into the small lakes, where they spear them, or force them into inclosures, where the bow and arrow are employed against them. These animals are also taken in snares made of skin. In the former instance the game is divided among those who have been engaged in the pursuit of it. In the latter it is considered as private property; nevertheless, any unsuccessful hunter passing by, may take a deer so caught, leaving the head, skin and saddle for the owner. Thus, though they have no regular government, as every man is lord in his own family, they are influenced, more or less, by certain principles which conduce to the general benefit.

Pike (1892:50) describes another situation. When two or more Indians were hunting caribou in company, it was a point of etiquette that the back fat and tongue belonged to the man who did the killing, while the rest of the meat was shared in common.

Both these examples refer to large game, and it appears that only large game was included in the food-sharing patterns of the Déné. Animals that could be taken in a snare -- even some of the large game like that in the example from

Mackenzie -- remained the property of the snare owner. Cooper and Pénard (1973:79), referring to the 1920s, record a slight variation on this. 'The furs taken by trap or rifle or arrow, as well as the pelt of moose and caribou, belonged to the one who had taken or killed the animal. The meat, however, belonged to the whole band and the chief made distribution of it, without asking the consent of the man who had killed the animal.' In later accounts where the tradition of food-sharing is recorded as having survived, it is only the large game that is mentioned as being involved (e.g. Honigsmann 1946:105; Helm 1961:84-85; Helm and Damas 1963:17). Helm, for example, notes that the bush Slave maintain the traditional obligation of the hunter to distribute his take of large game -- moose, caribou and bear -- among all the households of the community. The decision as to who gets what pieces is no longer the chief's but rests with the hunter who slew the animal 'and neither the killer nor his relatives or companions are assigned any special pieces of meat by virtues of holding these statuses.' This situation pertains to the 1950s. By the time of her later work with Damas Helm notes that although the distribution of larger game still obtains it appeared to be community-wide only in the smaller settlements. Cohen (1962:25), however, is not sure if food-sharing was still practised or not. Indian informants told him it was, 'but several Indians and a number of Whites vehemently denied this.'

When the Déné became involved in the trapping ecology introduced by the fur traders they gave up their ecological

self-sufficiency, tied themselves into the economic system of southern Canada and subjected themselves to the vagaries of the world market in furs. As Honigmann (1946:97) puts it:

In place of the self-sufficient economy maintained by the culture of the aboriginal bands, the contemporary culture has become integrated into a more extensive money economy. Today the principal product obtained by the exploitation of the environment -- fur -- is transformed into money or credit, and money has become the medium of exchange through which the people obtain most of their necessities of existence -- food, clothing, transportation aids, and the convenience of shelter.

Some Indians did very well on this system. For example, in the winter of 1924-25 the RCMP reported on the Indians at Fort Resolution (22),

They had made a great catch in foxes -- a great many more white foxes than usual; one Indian from the E end of the lake had more than a hundred white foxes to his credit already. When one figures that to the Indian the value of a white fox is about thirty dollars, one realizes how much some of these Indians and half-breeds are making at this time of year, and one can understand why it is so difficult to hire them as Special Constables, Forerunners, etc, at the salaries the Government is prepared to offer.

But the Déné had no control over this new financial foundation on which their cultural system was now erected. And it proved as unstable as sand. The cultural system built upon it, and dependent on it for support, creaked and cracked

and almost collapsed. Balikci and Cohen (1963:39) describe what happened at Fort Good Hope. In the 1930s fur prices rose and most of the Indians built houses in the Fort, even though they lived in them intermittently. By the end of the 1940s the sand had crumbled. World prices for fur slumped disastrously and never fully recovered. It was a bad time for the Déné, 'the worst period in his transition from the Indian to the white mode of living' (30), as a contemporary observer reported. The Indian had become dependent on being able to buy the white man's food, clothing, weapons, tools and other technological aids but he lacked the white man's earning power. As Helm and Lurie (1961:63) point out, the fur trade on the whole 'has never allowed the northern Indian an adequate level of living by Euro-Canadian standards or by the developing desires and standards of the Indians themselves. Their consumer desires have always outstripped their financial resources.' The Indian was further handicapped by living in a remote part of the country where transport costs and other overheads made all the products of the southern Canadian economy even more expensive than they were in the south. The Scandinavian archaeologist Helge Ingstad discovered this in the 1930s:

With our lean purses we visit the trading post to lay in further provisions, but the money we have is like a drop in the bucket down here in the north, where prices are out of all proportion. A hundred-pound bag of flour costs fifteen dollars, a box of ammunition three dollars. In civilization these prices average about four dollars and a dollar thirty respectively. It is even



worse at the remoter outposts where a hundred pounds of flour sometimes cost as much as thirty dollars, and a similar amount of sugar fifty dollars. One can readily imagine, thus, how many white-fox pelts a hunter would have to secure merely to cover his original outlay.

(Ingstad 1933:30)

In 1947-48 a shopping list of 17 food items cost 43 per cent more in Fort Resolution than in Ottawa<sup>(31)</sup>. 'Obviously an Indian earning less than \$300.00 a year cannot afford to buy the white man's essentials let alone his luxuries.'<sup>(30)</sup>.

A survey of Indian conditions in the Mackenzie basin in 1948<sup>(32)</sup> showed that the Indians in the Akleavik area were in much better financial shape than those in the remainder of the Territories because the fur conditions in the Delta were above average. Conditions were also good for the Indians at Fort McPherson and 'not too bad' at Arctic Red River because of their ability to acquire sufficient numbers of muskrats. Trouble came with increasing reliance on fine fur as, for example, at Fort Good Hope, where much relief had been extended and the standard of living was declining. The living standard of the Hare No. 4 band at Fort Norman was 'far from good at present' due to 'lack of fur, lack of foresight and lack of guidance.' Fur was more plentiful and living conditions better at Fort Simpson, but Fort Providence had the worst living conditions of all. Thirty-one families were on continuous relief and the only good thing was the plentiful supply of fish from Great Slave Lake. In summary, the living conditions of the Indians throughout

the Northwest Territories was 'far from good... In some of the districts the native is able to make a reasonable living, but as he has not the ability to obtain the most from the money he earns he is in a position somewhat akin to that of the Indian who relies solely upon fish and meat for an existence.'

Massive government programmes of relief, social assistance, job creation and vocational training were required to shore up and steady the economic underpinnings of the Déné cultural system. Rising fur prices and greater national economic stability in the later 1950s and 1960s and the role of defence, construction, administration and services in providing more work for the Indians in the northern settlements led to a sense of security in the North. As early as 1951-52 Helm (1961:29) recorded of the Lynx Point Indians:

We have seen that the bush provides fuel and a substantial portion of nutrition, but in other areas of consumption the trading post and the mail-order house today contribute much more heavily than does the natural environment. The Lynx Point people are thoroughly enmeshed in the market economy. They are never at a loss to know what to do with money, but their desires are often checked by a lack of sufficient income.

As income expanded, the Indians became spendthrift and reports of overspending are common. 'In spite of repeated lectures and good advice from both the Police and myself,' wrote the Welfare Teacher at Fort Liard as a typical example, 'they waste their money on foolishness and do not get good food or clothing' (33).

But the economic support of the Déné cultural system will never be trustworthy as long as it depends on unpredictable and fluctuating biotic resources and is tied into a world economic system which itself is subject to periodic disturbances. In the 1970s the seismic inflation that has shaken the western world economy has been near catastrophic as it shudders through the weakly based economic system of the Canadian North. Food prices in Canada increased 7.7 per cent between July 1972 and July 1973<sup>(34)</sup>. The price index for fresh vegetables was up by 40 per cent, fresh fruit 38 per cent and beef 21 per cent. Between 1971 and 1975 the Consumer Price Index for food increased by 46 per cent<sup>(35)</sup>. Increased production and transportation costs and feed costs for livestock, increased demand for food generally and crop failures in many parts of the world were all blamed for the steep rise in prices. Being now linked into the international monetary system the Canadian North suffers along with the rest of the world but suffers even more than most of it because of isolation and thus long transportation runs from centres in the south; low volume buying at the wholesale level because of the relatively small population; and higher wages paid to foodstore employees. Transportation costs were rising with increasing world fuel costs and would continue to do so. On a quart of milk that was shipped from Edmonton to Whitehorse the cost of transport alone in 1975 was 20 cents<sup>(36)</sup>. In 1974 a sixteen-item grocery list, including apples, tomatoes, celery, potatoes, butter, eggs, chicken, wieners, pork chops, bacon, bread, salt, corn, green beans, tomato soup and Kleenex cost \$16.57 in Inuvik,

\$13.06 in Whitehorse, \$12.78 in Fort Smith, \$12.65 in Yellowknife and \$9.59 in Toronto<sup>(37)</sup>. Along with transportation costs, heavy spoilage was another factor in the high price of foods like fresh fruit, vegetables and milk, all of which are highly vulnerable. The federal Food Prices Review Board report on the cost of food in northern Canada recommended that the transportation costs on certain nutritionally important food be subsidized by the federal government in an attempt to overcome the high price of certain perishables which put them out of reach for most northern Indian families. The report also made clear that those who are most affected by the high costs of food are those least likely to be able to afford them. For instance, the average Indian income per family is significantly lower than the average white income, yet the average Indian family has just over six members while the average size of a white family is slightly less than four. In addition, food costs generally rise with distance from the major distribution centres, as does the percentage of the Indian people<sup>(38)</sup>.

Economic factors have played havoc with Indian eating habits. The most nutritious imported foods, the fruit, vegetables, milk and eggs, are those that have been hardest hit by rising prices and sent sky-rocketing out of reach of the poorest families who are likely to be most in need of them. The cheapest foods are those highest in carbohydrates, especially flour, and therefore the least nutritious. It may be, however, that adverse economic conditions will be able to do what years of education have failed to do to any worthwhile extent: bring about a return to more traditional eating habits.

The success of this will depend on maintaining the numbers of game animals at a level high enough to meet the demand for food for a rising population and long enough to improve the failing health of the Indian people and sustain them into the foreseeable future.

## 5.5 Notes and references

- (1) Memo from G. Breynat, Vicar Apostolic of the Mackenzie, d. 15 June 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1)
- (2) Memo from the Director of Indian Affairs to the Commissioner of the Northwest Territories, d. 29 June 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (3) Official report to the Superintendent General of Indian Affairs d. 22 September 1899 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (4) Memo re Northwest Territories Game Act, d. 26 August 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (5) Letter from F. F. Fallaize, Bishop of the Mackenzie, to Dr C. C. Camsell, Deputy Minister of the Interior, d. 21 January 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (6) Report of Treaty Trip, June and July 1944: Dr J. H. Riopel, Indian Agent, Fort Resolution, d. 8 August 1944 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (7) Letter from M. Meikle, Agent and Superintendent, Wood Buffalo Park, to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 29 September 1944 (RG 85, Vol. 267, File 1003-2-1, Pt. 2).
- (8) Letter from Dr L. J. Mulvihill, Indian Agent, Fort Resolution, to R. A. Hoey, Director, Indian Affairs Branch, d. 17 September 1947 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (9) Important observations upon wildlife and conditions affecting the native economy, contained in the wardens' reports for the six-month period ended 31 December 1947. Anonymous (RG85, Vol. 267, File 1003-2-1, Pt. 2).



- (10) Letter from M. Meikle, Agent and Superintendent, Wood Buffalo Park, to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 9 August 1944 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (11) Memorandum from Glosemere Lamalice, Chief, Hay River Indians, d. 25 June 1949 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (12) Memo from C. K. LeCapelain, Chief, Yukon-Mackenzie River Division, to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 16 August 1950 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (13) Memorandum from H. F. Lewis, Dominion Wildlife Service, to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 7 July 1949 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (14) Report of Chief Factor James Anderson of the Hudson's Bay Company in the Mackenzie River District, Outfits 1851 to 1857 (Glenbow-Alberta Institute Archives, Godsell Papers, Ref. A .G539J f. 108).
- (15) Statement giving the population of the Mackenzie River District by localities as shown by the census of 1921: Dominion Bureau of Statistics, d. 20 March 1924 (RG85, Vol. 64, File 164-7, Pt. 2).
- (16) Statement of Total and White Population, Northwest Territories, Census 1931 (RG85, Vol. 64, File 164-7, Pt. 2).
- (17) Memo re the future of Indian Affairs Administration in the N. W. T. d. 5 February 1959 (RG10, Vol. 6926, File 140/29-1, Pt. 1).
- (18) Report for the Royal Geographical Society re Trip to the Western Arctic, 1928: F. Hunter (Glenbow-Alberta Institute Archives, Ref. D971.2 R.888).
- (19) Population of the District of Mackenzie: Extract from Report of J. A. McDougal, District Agent, Fort Smith, d. 3 October 1927 (RG85, Vol. 64, File 164-7, Pt. 2).
- (20) The activities of the white men against which Bishop Breynat spoke out strongly included 'the teaching... and the practice of gambling, brewing, birth control, bolshevism, etc... abusing the Indians in their camps or in the bush.' See Reference 21 below.
- (21) Letter from Bishop G. Breynat, Fort Resolution, to Col. J. K. Cornwall, President, Northern Trading Co., Edmonton, d. 27 January 1923 (RG85, Vol. 582, File 567).

- (22) RCMP Patrol Report, Fort Smith to Dease Bay, 15 December 1924 to 29 April 1925: Inspector H. L. Fraser, Fort Smith (Glenbow-Alberta Institute Archives, Ref. D979 .R888 f.18).
- (23) See RG85, Vol. 267, File 1003-2-1, Pt. 1.
- (24) Notes on an interview of Bishop Breynat with Mr Gibson, Deputy Commissioner of the Northwest Territories on Friday, the 12th February 1937 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (25) Memo from G. Breynat, Vicar Apostolic of the Mackenzie, d. 15 June 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (26) Beaver Report of 1930: J. F. Moran (Glenbow-Alberta Institute Archives, Godsell Papers, Ref. A .G589J f.104).
- (27) Letter from A. I. Sawle, Asst. Gen. Manager, Northern Traders Ltd., to R. A. Gibson, Deputy Commissioner of the Northwest Territories, d. 28 May 1938 (RG85, Vol. 267, File 1003-2-1, Pt. 1).
- (28) The Indians of the Northwest Territories. Official report of the Northwest Territories Administration, 1943 (RG10, Vol. 4094, File 600624).
- (29) Memo from R. Styra, Superintendent, Fort Simpson Agencies, to Indian Affairs Branch, d. 30 January 1962 (RG10, Vol. 6926, File 140/29-1, Pt. 1).
- (30) Medical Officer's Annual Report, Fort Resolution, 1947-48: Dr L. J. Mulvihill, Medical Officer (RG85, Vol. 1112, File 590-8, Pt. 2).
- (31) Taken from Reference 28 above, the 17 food items and their prices in Ottawa (a) and Fort Resolution (b) are as follows:

Food item	(a)	(b)
	\$	\$
Grapefruit juice -- tin	0.10	0.25
Tomatoes -- tin	0.23	0.30
Peaches -- tin	0.27	0.35
Kraft Dinner	0.19	0.25
Butter -- tin, lb.	0.69	0.90
Eggs -- dozen	0.49	1.00
Potatoes -- 10 lbs	0.39	1.00
Coffee -- lb.	0.51	0.70
Cheese -- 1/2 lb pkg	0.23	0.30
Pork and beans -- tin	0.20	0.30
Crisco -- lb	0.33	0.50
Pears -- tin	0.22	0.35
Chicken Haddie -- tin	0.24	0.45

Shortening -- tin	0.30	0.40
Corn Syrup -- 2 lbs	0.27	0.40
Lard -- lb	0.24	0.35
Flour -- 24 lbs	1.25	2.00

6.15	9.80
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- (32) Survey of Native conditions, Mackenzie Basin, Western Arctic, Northwest Territories: I. C. Hunter, Indian Agent, Fort Norman. d. 22 April 1948 (RG85, Vol. 267, File 1003-2-1, Pt. 2).
- (33) Welfare Report, Fort Liard, March 1958: E. D. Radcliffe, Welfare Teacher (RG85, Vol. 1341, File 1000/112, P. 1).
- (34) News of the North, 15 August 1973, p. 31.
- (35) News of the North, 10 December 1975, p. 21.
- (36) Yukon News, 3 April 1975, p. 17.
- (37) News of the North, 13 February 1974, p. 7.
- (38) Yukon News, 28 January 1976, p. E-4.

## Chapter Six

### Summary and conclusions

This report has attempted to answer three basic questions raised in connection with the food consumption patterns of the Arctic Drainage Déné.

Firstly: what were the traditional food consumption patterns of the Déné before contact with the cultural systems of Europe and North America? The answer, obtained from the published and unpublished writings of explorers, anthropologists, traders and government officers, is that the Déné in pre- and early post-contact times lived on a diet composed largely of the flesh, fat and internal organs of caribou, moose, rabbits and fish, supplemented by other meats like those of beaver, bear, buffalo and elk, by birds like ducks and geese and ptarmigan, by berries, leaves and roots of plants. The diet varied seasonally and geographically, but was always oriented towards the woods and waters of the sub-arctic environment and the mammals, fish and birds that were native to them. Eaten lightly boiled and often raw, the meat and internal organs of the animal and fish foods of the Canadian Northwest, together with botanical and avian supplements, provided all the nutritional requirements of the Déné.

The second question dealt with in this report asks what changes in food consumption patterns followed from increasing contact with the cultural systems and behaviour

of southern Canadians and other non-Déné people? This is a much more complex question. Cultural changes that affected food habits in the Sub-Arctic began with the coming of the fur traders from Britain and France in the eighteenth century and accelerated in the nineteenth century after the travels of men like Pond and Mackenzie had opened up routes from Hudson Bay to the Arctic Ocean, and trading posts were established all along the Mackenzie and the Yukon. The Déné were encouraged to give up the pure nomadic way of life of hunters and gatherers and to spend the winter season trapping the fur-bearers of the boreal woods. In return for furs the traders gave them guns and ammunition, food and clothing, a wide range of material goods and alcohol. Legislation introduced into the Northwest Territories thwarted the growing desire for liquor but could not eradicate it. The Déné learned of substitutes or brewed their own, and continual evidence of brew-parties, brawls and drunkenness under a regimen of prohibition made a mockery of the law. In the end the government had no choice but to grant the Indian the legal right to drink. This increased the problems of alcoholism in the 1960s and early 1970s, and only voluntary measures voted by the Déné themselves have brought about at least a temporary solution.

The foods traded to the Déné had to be light, easily transported and non-perishable. The basic was flour. With the advent of baking powder, the Déné, like most native residents of the North, combined it with flour and lard and fried it into a thick pancake known as bannock. Bannock became a staple, if not always the main course itself, then usually an accompaniment to it, often spread with lard,



margarine, butter or jam and eaten with tea or sometimes coffee. Flour, baking powder, lard, tea and sugar became basic ingredients of the sub-arctic diet along with available country foods.

Those Indians who fell on hard times, who had a run of bad luck on the traplines or were disappointed in their hunting, were issued with relief, initially by the trader for whom they trapped and then increasingly by the government. Relief rations consisted largely of the same high carbohydrate foods, the non-perishable ingredients of a tea and bannock diet. The proteins, vitamins and minerals necessary to maintain health had to come from country food hunted by the Déné. But in many parts of the Northwest the sources of country food were in decline. Armed with steel traps and rifles by the traders and urged to bring in as many pelts as possible the Déné tended to overexploit the biotic resources on which they depended for food and livelihood. In this they were aided by the incursion of white trappers who, branded as greedy and unscrupulous, equipped with aircraft and superior weapons and accused, with some justification apparently, of using poisoned bait, raided the trapping areas of some of the Déné bands. The high prices offered for furs encouraged overexploitation by the Déné themselves and by the much smaller numbers of white trappers. Then simultaneously the market price of furs collapsed and the numbers of animals declined to critical levels. By the late 1940s a grim economic slump depressed the living standards and all but destroyed the way of life of the sub-arctic Indian.

Family Allowances, Old Age and other pensions, welfare payments and relief rations eased the post-war burden.

Education was pushed forward, vocational training was instituted, more and more Indians were encouraged to find alternative livelihoods to trapping, to take full- or part-time jobs or seek seasonal employment. Construction work, care-taking, cleaning, summer stevedoring and winter snow-clearing, driving trucks and operating heavy machinery, all these and other forms of wage employment brought much-needed extra cash to those who could find jobs.

The result was to accelerate a migration towards the settlements which had begun when trading posts and then missions and RCMP detachments were established and offered potential nuclei round which settlements could form. Social welfare, education, relief and other services issued from the settlements, the old 'points of trade', and the Déné were attracted to them more and more. The building of houses to replace the Indian shacks and cabins added to the attraction. The Déné became even more sedentary. But diet suffered yet again. Those who worked for wages were forced to buy more of their food from the stores and change more rapidly to a high-carbohydrate southern Canadian diet which was not good for their health. Those who hunted and trapped found it increasingly difficult to catch sufficient game within reach of the settlement and they too were forced to supplement their country food with more of the cheaper, less nutritious foods available from the store. The coming of the snowmobile increased the winter range that could be reached from settlements but did

not guarantee an adequate catch of food or fur.

The North country came out of its economic doldrums in the later 1950s. Defence, construction, administration and services all provided more and more work for the Indians as better education, health and training enabled them to make the most of their opportunities. Fur prices rose again and stabilized, though at a level lower than they had been in the 1930s. The Déné were firmly enmeshed in a market economy, but this had its disadvantages too. The escalating cost of living counteracted the economic gains of the 1950s and 1960s, and the rapid inflation of the 1970s almost wined them out. Inflation hit the northern peoples harder than it did the population in the south because of the extra burden of transport, spoilage and high wages that isolation and distance add to rising costs. This tends to encourage purchases of cheaper, less nutritious foods, for fresh fruit and vegetables, milk and cheese and eggs are not only the most healthful but also the heaviest, bulkiest, most perishable, most vulnerable and therefore the most costly foods to transport to the North.

Transport has been an important factor in the 'westernization' of the food habits of the Déné. Unlike the eastern and the far northern arctic territory of the Inuit, the Mackenzie and the Yukon basins have been comparatively easy of access by train and river steamer. Much more food and in a much wider variety could be delivered to the Déné than could ever reach the Inuit. Easier access and a more congenial wooded environment encouraged a larger and more settled white

population in the Mackenzie valley and they provided a market for the full range of foodstuffs from the southern supermarkets. The development of air transportation and the opening of air-routes into the western Arctic increased the supply of fresh foods to the settlements of the region. Another advantage that the Mackenzie district had over the barren lands of Keewatin or Franklin was a riverbank soil that was suitable for cultivation and a summer climate and daylight regime that encouraged the rapid growth and maturation of vegetables and certain fruit. The Déné were never as dependent as the Inuit on the development of air transportation in order to have fresh garden produce. And they never had to pay as much for imported foods. A wider range of foods at a cheaper price together with the availability of fresh vegetables from local gardens has meant that on the whole the Déné have been better fed than the Inuit. This shows up in the documentary sources consulted in the preparation of this report. Compared with those from the Eastern Arctic, the welfare, medical, police and other socio-economic reports and correspondence from the Mackenzie are noticeably scant in references to malnutrition, insufferable living conditions, dirt and disease. This is not to say that these did not exist in the Mackenzie -- the different chapters in this report reproduce evidence that they did -- but they did not occur, or do not from the available data appear to have occurred, to the same shocking degree as among the Inuit.

The third question raised in this report asks: what

were the attitudes of those responsible for Indian Affairs and Northern Administration to the changes in dietary habits and what changes did the government itself bring about as a result of official policies initiated in response to awareness of change?

Government involvement in the eating habits of the Dene began in the late 1880s when reports reached Ottawa of widespread starvation, and even cases of death and cannibalism, as a result of a natural shortage of game animals and poor hunting. In this crisis of hunger and suffering the trading companies, with an eye on declining profits and in the best interests of their shareholders in the south, abandoned their starving trappers and handed over the responsibility for their welfare to the federal government. Relief became a government issue and has remained so to the present.

Large-scale government involvement in the affairs of the Canadian Northwest did not really begin till after the northern Athabascans signed Treaty No 11 in 1921. Indian Agents, police and other representatives of law and order and good government moved down the Mackenzie and took up their posts in the trading settlements where for so long the traders alone had ruled as masters. The new government personnel took stock of the situation and found that all was not well.

Reports mentioning lack of proper nourishment began to reach administrative desks in Ottawa and Yellowknife. Surveys revealed the rapidly declining stocks of game animals and fur-bearers. Letters and magazine articles written by supporters of the threatened Indian way of life claimed that



white interlopers were poisoning the land and wiping out its fauna in the interest of nothing more noble than personal greed and financial gain. The government were forced to take unpopular steps to protect both the Indians and the animals on which their way of life depended. Game preserves were set up, strictly enforced regulations were instituted that set limits to bag size and open seasons, and rules concerning eligibility for hunting and trapping permits reduced the activities of non-resident white men. The Déné themselves complained bitterly about these new restrictions on their ancient rights and guaranteed freedom to hunt and trap as they had always done. Partly the protests were due to the government's failure to communicate the reasons for the restriction to the Déné leaders, and partly to the Déné failure to understand, or refusal to accept, the explanations when they were eventually made. A large part of government activity in the Northwest has since been monitoring the general state of the animal populations on which the Déné depend for food and livelihood and making such changes in quotas and close seasons as the situation of both animals and Indians demanded.

The government had to make good the shortfall in native food that resulted from game restrictions, and this it did by increasing and improving relief rations and by importing buffalo meat from Wood Buffalo Park and reindeer meat from the Delta. Relief rations, though improved nutritionally on the advice of government nutritionists in Ottawa, were nevertheless dominated by foodstuffs from

southern Canada. By thus acquiring the approval of the government, being issued by and with the authority of government representatives in the settlements, these rations were regarded as good by the Indians and therefore desirable as food. The same may be said about school lunches and the meals served in residential hostels, hospitals and other institutions. The federal government and its various officers were the representatives of the new system of authority in the North and their laws were to be obeyed and their recommendations followed. If these people gave out imported foods to Indian children at school and to Indian families in distress and if they bought and fed themselves and their own families with these foods then these foods were the right ones to eat. For the educated Indian the written word was endowed with a similar authority, as were the messages that issued from the television set for the literate and illiterate alike. Advertisers thus had an innocent, and indeed gullible, audience for their promotions. These were not always in the best interest of the health and well-being of the Indians who took them in.

The government attempted to counteract the largely negative influence of the communications media by increased emphasis on home economics education in schools and in vocational training. These classes, however, were taught by white women who, though they claimed to be stressing the use of native foods, nevertheless gave to cooking a decidedly 'white' orientation in terms of meal preparation and menus that could not fail to be absorbed by the Indians.

The rapid inflation of prices in recent years, however, has put a lot of imported foodstuffs out of financial reach of many Indian families and may be stimulating a return to more traditional eating habits as strongly advocated by medical men like Otto Schaefer and Raymond Obomsawin. The crucial question now is whether the ravaged environment of the Sub-Arctic can support such a return.

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