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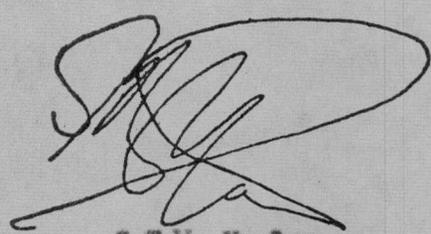
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COMMISSIONER OF THE N.W.T.
Attention: Mr. Hawkins - Fort Smith

Ottawa 4, August 15, 1968.

Mackenzie Delta Research Project

— Attached, for your information, are six copies of "New Northern Townsmen in Inuvik" by A.M. Ervin which were recently received from the Northern Science Research Group. Additional copies, if required, may be obtained direct from the Chief, Northern Science Research Group.



C.T.W. Hyslop,
Assistant Director

G. Smith/cl/H

Leub.

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ADMINISTRATOR OF THE ARCTIC
DIVISION OFFICE

Ottawa, July 27, 1961.

Meckemie Delta Research Project

Attached, for your information, is a copy of "New Northern Season in Inuvik" by A.M. Ervin which was recently received from the Northern Science Research Group. Additional copies, if required, may be obtained direct from the Chief, Northern Science Research Group.

G. Smith/cl/M

G.T.M. Nyberg,
Assistant Director



Copy for Mr. Davidson

1009-3-16

Department of
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ADMINISTRATOR OF THE ARCTIC
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Mackenzie Delta Research Project

Attached, for your information, is a copy of "New Northern Townsman in Inuvik" by A.M. Ervin which was recently received from the Northern Science Research Group. Additional copies, if required, may be obtained direct from the Chief, Northern Science Research Group.

C.T.W. Kyslop,
Assistant Director





Mackenzie Delta Research Project

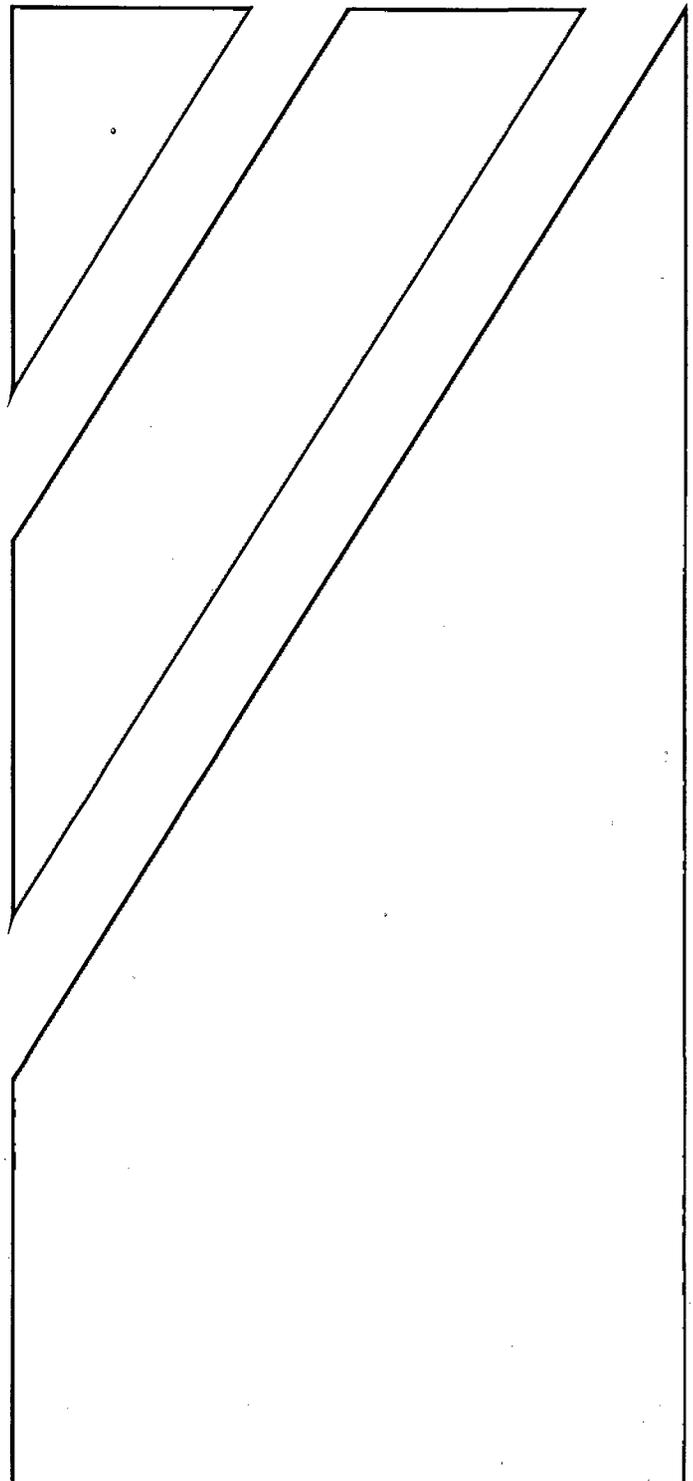
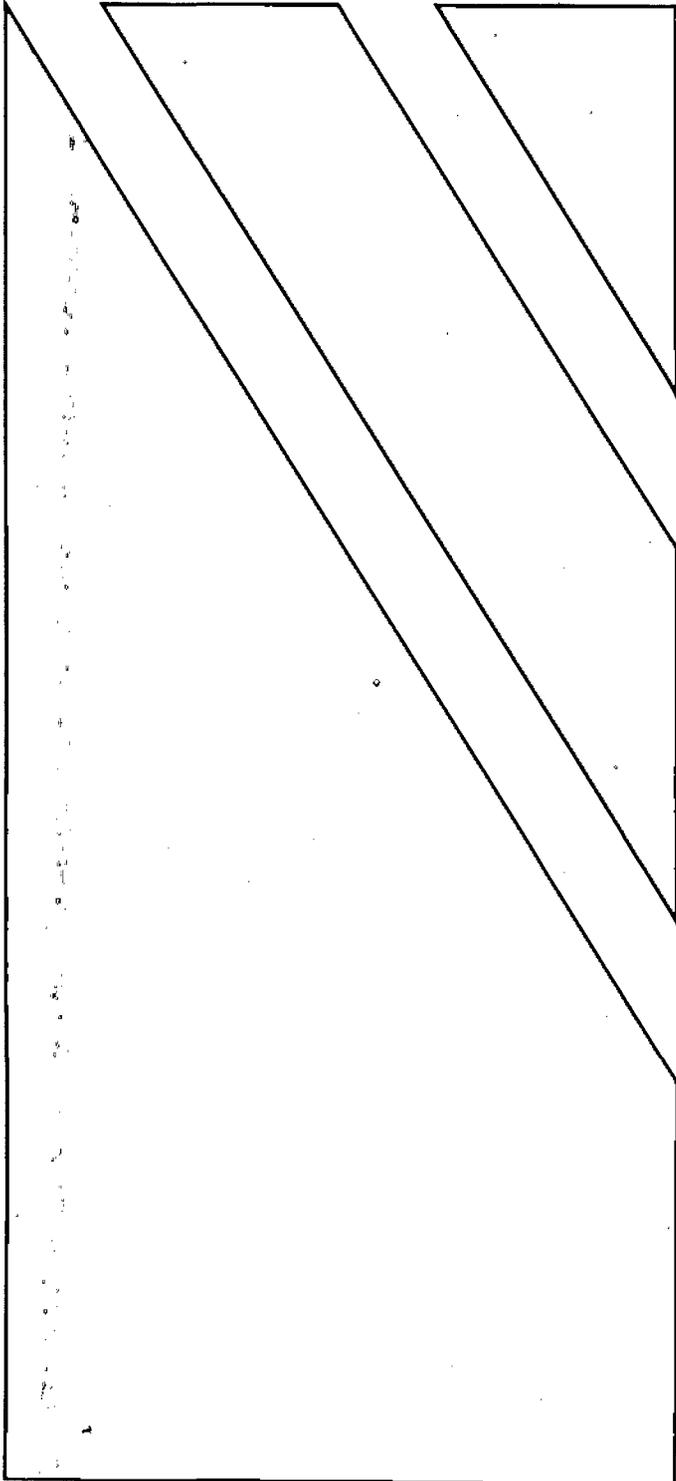
New Northern Townsmen in Inuvik

By A. M. Ervin

MDRP 5

Northern Science Research Group

Department of Indian Affairs and Northern Development, Ottawa



NEW NORTHERN TOWNSMEN IN INUVIK

by

A.M. Ervin

This report is based on research carried out while the author was employed by the Northern Co-ordination and Research Centre of the Department of Northern Affairs and National Resources, now the Northern Science Research Group of the Department of Indian Affairs and Northern Development. It is reproduced here as a contribution to our knowledge of the North. The opinions expressed however are those of the author and not necessarily those of the Department.

Requests for copies of this report should be addressed to Chief, Northern Science Research Group, Department of Indian Affairs and Northern Development, Ottawa.

Northern Science Research Group,
Department of Indian Affairs and Northern Development,
Ottawa, May, 1968

ABSTRACT

Using as analytical devices several social variables which include ethnicity, life-style, age, sex, and social stratification, the social life of the native people of the Delta, and of Inuvik in particular, is studied. Through analysis of these components the degree of success enjoyed by native people in adapting to the new urban environment of Inuvik is assessed. It is found that ethnicity is no longer the prime factor in determining the nature of social interaction in the Delta. A new grouping, in which people from all ethnic groups are included, is emerging. The emergence of this – the "Northerner" grouping – can be understood as a response by its members to a feeling of domination by "Southerners". Analysis also identifies several factors which hinder the successful acculturation of the "Northerner" population to the new town environment. While some of these come from outside, others derive from elements inherent in the pre-urban life ways of the native people. In the former category are to be included the needs of these people for improved economic opportunities, education, job skills, and housing, all of which are necessary for better adaptation to the new town environment. In the latter category are several deeply rooted attitudes about what is good and bad. Notable here are the "sharing ethic" and the "consumption ethic", both vital elements in the "bush" culture.

Accepting all these difficulties, and acknowledging that some involve deeply rooted feelings, it is concluded that many problems may be solved if the "Northerner" grouping becomes more powerful, and if its members can develop greater awareness and pride in their identity.

FOREWORD

The Mackenzie Delta Research Project is an attempt to describe and analyze the social and economic factors related to development in the Mackenzie Delta. Particular emphasis is being directed toward the participation of the native people of the area, and the extent to which they are making effective adjustments to changes brought about by government and commercial expansion in the north.

This study, MDRP 5 by A.M. Ervin, follows the work done by José Mailhot, whose report has been published as MDRP 4 (*Inuvik Community Structure - Summer 1965*)

Mr. Ervin's research is directed toward some of the problems of adaptation which native people experience in Inuvik, and it explores the problems they experience in finding a satisfying identify in the new town setting. Recommendations for action to ameliorate some of their difficulties are also presented.

A.J. Kerr,
Co-ordinator,
Mackenzie Delta
Research Project.

PREFACE

This report is based on my three and one-half months of field work among the residents of the Mackenzie Delta (principally in the settlement of Inuvik), Northwest Territories, Canada. Field work began on June 21 and ended on October 5, 1966. The work was done for the Northern Coordination and Research Center of the Department of Indian Affairs and Northern Development, as a component study of the Mackenzie Delta Research Project. This report is intended primarily as a continuation of J. Mailhot's study (*Inuvik Community Structure - Summer 1965*) and should be read in conjunction with it.

I would like to thank Dr. D.B. Shimkin of the University of Illinois for his advice and encouragement in the writing of this report. However, responsibility for the views and opinions expressed is my own. I am also indebted to my colleagues in the field: Dr. J. Lubart, J. Wolforth, D. Smith, and A.J. Kerr, for their helpful cooperation. I wish to express particular thanks to the residents of the Delta for their hospitality and advice, especially to Victor and Bertha Allen, Johnny Banksland, William and Rebecca Chicksee, John Pascal, Suzy and Peter Sidney, Big Jim and Ida Rogers, Sandy Stefansson, and Dave Sutherland.

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1.0 INTRODUCTION

1.1 THE PROBLEM, AND FIELD METHODOLOGY

As a researcher on the Mackenzie Delta Research Project, my task was two-fold. First of all, I was to conduct an anthropological survey of 'significant social sub-groupings' as part of Phase II in the Project's program of research. Secondly, I was to concentrate on the native population of Inuvik, as a continuation of J. Mailhot's (1966) community study of Inuvik.

Field techniques in this research included informal observation, and intensive interviews with selected native and white informants. The bulk of the fieldwork was done in Inuvik, as this was to be the focus of the problem. However, all of the Delta settlements (except the Arctic Red River) were visited, and several journeys were made to fishing and whaling camps. These trips proved useful in that they provided contrasts which illuminated many of the features of Inuvik.

This report represents the findings from the field research. Two main descriptive sections are presented. The first (Section 2.0: Cultural and Structural Features of Inuvik and the 'Regional Community') is an attempt to view the social life of the Delta, and more specifically that of Inuvik, in the light of certain significant social variables. It includes the factors of ethnicity, life styles, age, sex, settlement patterns, social stratification, and formal community organizations. All of these variables are intended to demonstrate the theme of native adaptation to the new 'urban milieu' of Inuvik, or the degree of successful transition from bush life to that of the town. In this section an attempt has been made to formulate some of the more important social sub-groupings (e.g., factors of ethnicity and styles of life).

The second descriptive section (3.0, Individual and Community Problems) refers directly to Inuvik, describing some rather serious adjustment difficulties and responses for native people, arising from the 'urban' structure of Inuvik.

Inuvik's urban life is summarized in section 4.0, drawing from the material of the two descriptive sections (2.0 and 3.0). Finally, suggestions for the alleviation of some of the problems brought forward in this report are presented in the last section (5.0, Recommendations).

1.2 THE SETTING

Six permanent settlements (Aklavik, Inuvik, Tuktoyaktuk, Fort McPherson, Arctic Red River, and Reindeer Station) constitute the main population centers of the Delta. These communities may be considered as forming a single 'regional community', since they are linked by such economic and political ties as transportation, commerce, administration, health, and education. Migration to and from the various Delta settlements is common, and inter-community kinship bonds are very important for the native people.

Table I

Settlements	Total	White	Métis	Indian	Eskimo
Mackenzie Delta Settlements (Total)	4728	1918		1148	1662
Arctic Red River	109	5	21	83	-
Ft. McPherson	706	70	80	550	6
Aklavik	635	145	60	150	280
Inuvik	2258	1367		245	646
(Hostels)	(486)	(102)		(114)	(270)
Reindeer Station	69	9	-	-	60
Tuktoyaktuk	465	40	19	6	400

Populations of Inuvik Regional Settlements, 1965

Source: Cooper: 9

The inhabitants of Reindeer Station, with the exception of two families, are Eskimo, and are engaged in reindeer herding. Aklavik, a fur-trade town, is ethnically heterogeneous (Eskimo, Indian, Métis, White). Arctic Red River and Fort McPherson, located on the Arctic Red and Peel Rivers respectively, are traditional fur-trade towns, with the populations consisting primarily of Loucheux (Kutchin) Indians. Tuktoyaktuk, located on the coast of the Beaufort Sea to the east of the Delta is predominantly Eskimo, and is the site of a Distant Early Warning Line station.

Inuvik is located on the East Channel of the Mackenzie River Delta. It contains over half of the regional population, dominates the Delta, and is a service community, being the administrative center for the Western Canadian Arctic. It contains various government agencies, a large hospital, a school and hostel complex, a Navy radio station, and an airport with suitable facilities for handling large transport planes from southern Canada.

Inuvik's construction arose out of a decision made in 1952 to replace Aklavik with a new town, since Aklavik was considered unsuitable for further expansion, being subject to floods. As well as providing for the expansion of government facilities, the new settlement was planned to be an area which would have improved educational, health, and welfare facilities. This was to be a model Arctic town, proof that living facilities of southern Canada were viable in the Arctic. Construction began in 1954, and was virtually completed in 1959 (Pritchard: 145-152).

There is still much indignation among the permanent residents of the Delta over the fact that they were not consulted to any great extent in the selection of the Inuvik site, nor in the actual planning of the town. I was told that the residents of Aklavik received their first news of the choice of the town's location from an American radio station in Fairbanks, Alaska. The site seems to have been selected more on the basis of technological and engineering feasibilities than on considerations of the needs which the native population felt were important. Many still feel that the move would have been more acceptable to the local people if Inuvik had been located on the West Channel near adequate fish, game, and fur resources. The present location of Inuvik creates transition problems for the native people, since such resources are inadequate, thus forcing them to depend for subsistence upon either wage-labour or welfare assistance.

Aklavik was expected to die a natural death. Indeed, it seemed that this was going to be the case, since at first many people left the settlement to participate in the construction of Inuvik, and very little government capital remained operative in Aklavik. However, after the initial construction phase at Inuvik, many of the previous residents returned. The government seems now to have recognized that Aklavik is there to stay. Recently, considerable investment money has begun to flow into the area, and construction has picked up in this older town.

On the positive side, many useful and welcome results have come from the construction of Inuvik. With the building of the Sir Alexander Mackenzie School together with its hostel complex, educational opportunities have been increased, most notably in vocational and high school training. The expanded facilities of the hospital complex are a definite asset to the immediate and surrounding area. Natives who are seriously ill (especially T.B. patients) do not have to be removed to Camsell Hospital in Edmonton. Most important, Inuvik provides wage-labour opportunities for the native people. Such employment is critical, since the fur-trading industry cannot support many people to-day, and fur prices tend to fluctuate drastically according to the unreliability of highly competitive world markets, themselves dominated by public taste and fads.

In the future, natural gas, oil, and other mineral resources may be exploited in the Delta region. This suggests future employment opportunities for native persons, but at present, assessments of both the extent of these resources and of the demands from the southern market are unknown (Wolforth: 72).

Consequently, the present economy is a highly artificial one, not dependent on the exportation of natural resources or on manufactured products. Government services and construction, supported by heavy financial 'underwriting' from the south, form the basis of this artificial economy. Most of the permanent and native population are now supported through subsidized seasonal wage-labour and welfare payments.

Inuvik must be viewed in terms of a reference frame based on these economic realities. Furthermore, although many errors were made in the planning and construction of this town, it is there to stay, and it illustrates trends of centralization and urbanization which are becoming increasingly important in the Canadian North.

Jacob Fried has pointed out most succinctly the importance of the time factor in the problems of maladaptation confronting new northern towns such as Inuvik:

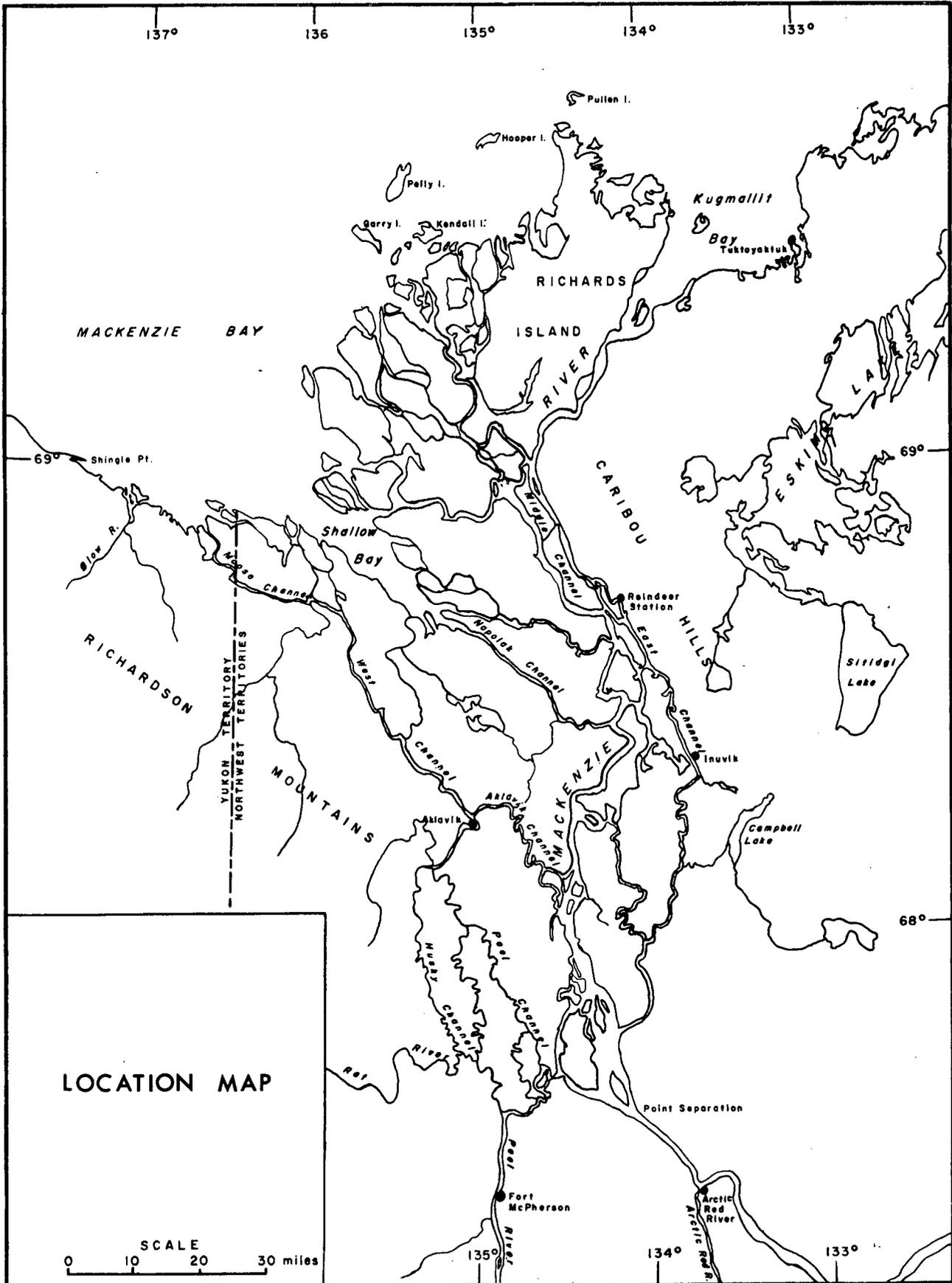
"The culture of new Northern settlements then is not necessarily derived by experience, and does not reflect a historical process of adaptation by settlers... In this early stage of commun-

ity development there is a marked lack of innovation because there has not been enough time to develop the slow and immediate exchange between man and his environment and so create a local culture or style."

(Fried: 94)

The following sections, describing the social life of Inuvik and the Delta, should reflect the validity of the above statements.

MACKENZIE DELTA



2.0 CULTURAL AND STRUCTURAL FEATURES OF INUVIK AND THE DELTA "REGIONAL COMMUNITY"

2.1 THE SIGNIFICANCE OF ETHNIC ORIGIN

Groupings in Aklavik and Inuvik are not so strongly based on ethnic lines as they are reported to be in other Northern communities (e.g., Great Whale River: see Honigmann 1962). At one time, this was not the case, for hostilities and avoidance-behaviour were quite common between the Indians and Eskimos of the Delta. To-day these differences have largely evaporated because of the common position in which the Métis, the descendants of white trappers, the Indians, and the Eskimos, find themselves in the new town-setting of Inuvik. Furthermore, since Aklavik has been quite heterogeneous from its founding, strong ethnic identity has been reduced because of shared interests developing through common residence and participation in the fur-trade.

A growing basis of grouping is that of Northerner versus Southerner, or long-time resident of the Delta, versus the transients from the provinces of Canada. 'Northerner' is a social category which includes Indians, Eskimos, Métis, white trappers, some entrepreneurs, and a few civil servants. The basic criterion for membership in this grouping is that of permanent residence, or, for those born outside of the Territory, a stated commitment to settle in the North, and to have close social ties with the native people. Thus, the category, 'Northerner,' is an emergent phenomenon. It is a local social response to the recent and rapid influx of many transients (including civil service people, navy personnel, construction workers, and so on).

In the eyes of the Northerners, the 'Southerners' fall into various categories. At worst, the Northerners view the Southerners as opportunists and selfish intruders who are a threat to the well-being of the North, coming there to exploit, to exercise power over local people, and to create little or nothing of positive value in or for the area. At best, the Northerners see the Southerners as rather impersonal and disinterested persons, apparently not willing, or giving much indication of trying, to interact with or understand the native peoples.

The latter stereotype would seem the more correct according to the writer's observations of behavioural patterns. At public places and events there seems to be little intermingling or conversation between members of the two groups. Southern transients (except for construction workers) drink almost exclusively in the quiet atmosphere of the Mackenzie Hotel's cocktail lounge, while the groups of native peoples drink in the one beer parlour, or 'zoo,'¹ as it is called by the Southerners. At church assemblies, most of the natives segregate themselves, usually sitting in the back pews; and there are special services given in the Loucheux, or Eskimo languages. This theme of separateness is apparent also at the Hudson's Bay Store, at baseball games and sports events, and such public events as 'Inuvik Sports Day.'

In addition, in comparison with the Northerners, the Southerners have job advantages, and command higher salaries and better housing (see section 2.5). This is normally due to the fact that they have greater and more valued skills and have had the advantage of more extensive education. Northerners (mainly of the native category) lack these housing and job advantages, since they do not possess the educational requisites needed to attain them. They view themselves as having been conditioned by the bush-life, and as being possessed of the Northern values and greater honesty in their relationships. Some Northerners feel that these latter qualities often put them at a disadvantage in the unfamiliar town-setting of Inuvik.

Returning to the question of ethnicity proper, there are of course the legal ethnic classifications: Indian, Eskimo, and 'Other'. (referring to whites and people of mixed ancestry, not classified as Indian or Eskimo). Yet these terms are often meaningless from a biological standpoint, or in considering the style of life of the individual. Strikingly Caucasoid features are frequently found among persons with native legal status, living an Eskimo or Indian trapping style of life. There are also a few native people in town (plus a growing number of adolescents) who have gone through the school-hostel system, whose native ethnic origins are becoming increasingly remote as they become more oriented to town life and the white man's ways. Probably styles of life (see section 2.2) will become more important for group identification in the future.

¹ One time while I was sitting in the cocktail lounge I overheard a waiter say to a navy couple, "Have you ever looked into the 'zoo'? It's quite a wild sight. Come on and see. I'll open the door for you." The man went, but his wife declined. Also it is interesting to note that many native people themselves now refer to the beer parlour as the 'zoo'. To me this indicates a rather distressing sign of feelings of self-consciousness and inferiority on the part of native people.

Ethnic awareness among the permanent population tends to be situational. Indians, Eskimos, or Métis will often speak of 'we natives' or 'we Northerners' in opposition to whites or Southerners. Derogatory references to other ethnic groups within the Northerner population will be displayed in heated moments. For example, an Indian complaining about the government might refer to those 'damn Huskies' (Eskimos) as getting more welfare benefits than Indians; a young Eskimo girl might complain of Indian girls 'ganging up' on her in the school hostel.

Also, it is noticeable that in everyday behaviour, Eskimos tend to associate mostly with Eskimos, Métis with Métis, Indians with Indians, and white Northerners with white Northerners. Phenomena which reflect this include visiting behaviour, drinking and partying, cliques in the work situation, etc. But it should be pointed out that these relationships are based more on kinship or place of former residence than on any specific reference to ethnic origin, as early childhood friendship-ties last long into adulthood. At the same time friendships and marriages frequently cross ethnic lines.

Transient whites appear to favour Eskimos over Indians, considering them to be more amiable and cheerful and reliable on the job. This is probably a preconditioning which they have received even before they arrive in the North, by the popular image of the 'smiling Eskimo.' White stereotyping of different native peoples and the natives' concurrent awareness of these biases have some effect in structuring social relationships, particularly the nature of initial contacts. But there do not appear to be any essential behavioural differences between Indians and Eskimos.

Instead, when placed in the relatively urban setting of Inuvik, Indians, Eskimos, and Métis merge as an indigenous people subordinate in occupation and socio-economic status to the transient whites who are more attuned to the ways and means of urban life. And as was pointed out earlier, this distinction is expressed by the Southerner and Northerner categories. However, as will be seen in the discussion of Inuvik's formal organizations, the Northerner category has not yet jelled into a grouping powerful enough to counteract the influence of Southern transients.

2.2 CONFLICTING NORTHERNER LIFE STYLES

Vallee, in his descriptions of the Eastern Arctic, has suggested the Nunamiut-Kabloonamiut continuum. The Nunamiut are people oriented towards Eskimo land-life, and the Kabloonamiut are drawn to the settlements and the white man's ways (Vallee: 139). The difference, with reference to the Delta, is that the whole scale has to be shifted towards the Kabloonamiut pole. This is so because the inhabitants of the Delta have participated in the Canadian economy, through the fur-trade, for over fifty years. Furthermore, Smith estimates that there are only 150 native people still engaged in bush-life, who are full-time trappers (Smith: 22). Ten years ago the large majority of native people in the Delta were 'bush-oriented,' and active fur trappers. But since the D.E.W. Line construction era, the majority have become dependent on wage-labour.

2.21 The "Bush" or Trapping Style of Life

The economic life of bush Indians and Eskimos revolves around fur trapping, mainly muskrat, with lynx, martin, mink, and beaver of secondary importance. There are a few differences in the Indian and Eskimo patterns of bush life. The Indians tend to be more settlement-oriented, either operating directly from a settlement (Ft. McPherson, Arctic Red River, and Aklavik), or spending several months of every year in one of these settlements. The bush-oriented Eskimos spend almost all of their time either on the coast or in the Delta, with occasional visits to the settlements for supplies and the selling of furs. In both groups, store-bought food is supplemented with game food including caribou, fish, geese, ducks, and whales (the last only in the case of Eskimos). (Smith (11-17) discusses the seasonal cycle more fully than is feasible for this report.

Cash income from trapping is low. Based on 1963-1964 estimates, Wolforth estimates that one third of the Delta's trappers (including part-time) had incomes of less than \$100, with only fifteen having incomes over \$2000

(Wolforth: 13). Yet at the same time, these full-time trappers often feel that the economic disadvantage is compensated for by the psychic well-being of autonomy in the work situation. Many in fact contrast their position with that of the people in the town who are 'pushed around' by 'bosses,' and have to work when they are told. Townspeople often mention how much better off they were in the bush, because they were their own bosses. All the natives I spoke to in the town agreed that they were now more comfortable, economically; but they all referred nostalgically to the bush life, and many said that they would like to go back if they had the equipment.

However, it is doubtful that they would actually return. There has been a recent move among certain native leaders to rehabilitate the virtually-defunct Trapper's Association, with the idea of better equipping trappers already on the land, and of resettling some town natives back into the trapping economy. There are a few in the town who might be better off if they did return to the bush, since their lack of education limits their job potential. When I was about to leave the field, an Eskimo was planning to return to Sach's Harbour to try one more trapping season. But he was going to run into difficulties because he had neither the equipment nor the necessary capital.

Kin ties are very important with bush-people. The usual pattern is for a three-generation unit to be supported by one male (Smith: 20). Children are highly valued, and parents become very lonely in the fall when the children are sent away to the school hostels. In fact, one of the main reasons that so many trappers moved into Inuvik was so that they could be with their children.

Generosity in the sharing of equipment and food resources, as well as indulgence in consumption, are quite prevalent in the bush life. These patterns are, of course, quite functional in the trapping culture as sudden misfortunes may result in starvation for some families. Native sharing which amounts to native 'welfare', is a very personal thing without a cost-accounting. However, such native patterns of indulgence and generosity have created problems in town adjustment.

2.22 Town Life

On the whole, the native people in the bush and the other Delta settlements view Inuvik negatively. To them, Inuvik is an impersonalized, white man's government town. To be fully employed, one usually has to take an 'eight to five job' with the government and in a subordinate position. They also feel that the beverage room of the Mackenzie Hotel ruins native people. As one Aklavik Eskimo put it, "When a person moves to Inuvik, he is as good as dead."

However, there are certain features of town life viewed positively by native people, which help to explain the lure of Inuvik. Jobs or welfare payments insure that they will be well fed, as compared with the uncertainties of the bush. Native people recognize the convenience of the health facilities of the town, especially since disease and accidents have always been central problems in the North. For many it is of intense emotional importance to have their children living at home, rather than being separated from the family life for months in school hostels. Loneliness and fears of alienation are recurrent themes among Northern peoples, especially during the long winter months. Thus, even visiting bush people look for security through companionship. In other words, people attract people to the town. Novelty and excitement is sought through movies, dances, the bars, bingo games, and other forms of entertainment.

Yet the town-dwelling native people have feelings of 'relative deprivation' when they compare their living conditions with the living conditions of the transients, for whom urban services are provided with comparative liberality. The vast majority of natives live in the unserved end of the town, where housing is crowded and living costs are higher than in the subsidized serviced area (see section 2.5 for a fuller discussion). Also, since the native people are unskilled for the most part, large numbers of transients have been introduced into the area to fill administrative and skilled construction jobs. A native person, having at most quasi-vocational training (not fully useful in the bush or in the town), rarely achieves a position other than one of unskilled labour. Wolforth (44) lists 320 whites, 50 Indians, 83 Eskimos, and 36 'Others' as holding steady jobs in July 1965. During that period, 90.3% of the Eskimos, 72.7% of the Indians, and 86.3% of the Métis on the payroll of the Department of Northern Affairs earned between \$300 and \$350 a month; while 81.3% of the whites on the same payroll earned more than this (*Ibid*: 45). Most of the native people on the job market have at best an eighth grade education, since they grew up in a period when formal education was de-emphasized because it was not essential in a fur-trapping economy.

Because of the lack of previous education and town experience, native people are generally unaware of certain values that are associated with town life, as well as the opportunities which might be available to them. Saving is minimal. The ethics of consumption and sharing, appropriate to bush-life, persist in the town. Pressures of kinship and friendship are placed on wage-earners for loans, most frequently for the buying and consumption of alcoholic beverages. Coupled with this, gossip is likely to be employed against those who too eagerly seek material acquisitions and status. Not infrequently too, the holding of certain responsible jobs by natives causes difficulties in relationships with kinsmen and friends. For example, native welfare assistants are sometimes placed in the awkward position of having to decide whether fellow natives applying for welfare help are in actual need of it.

Welfare itself puts the people at a disadvantage. Because of a growing dependence on relief payments, and a corresponding loss of bush skills, some of these people are tending to lose self-reliance, motivation, and basic self-esteem. More seriously, there are many in the younger generation who are growing up knowing only a 'welfare culture,' unlike their parents who at one time or another were engaged in esteemed work. Unless this situation is remedied, these younger people may have little chance to gain any satisfying basis for identity.

On the whole, one gets the feeling that few of the native people have a strong sense of personal identity. The majority were raised in the bush, but now find that most of their former values, skills, and behaviour patterns are obsolete in the town. Associated with this is a confusion as to goals, and how to pursue them successfully. Although identification with the bush life is still strong, and most people, including some of the more successful wage earners, talk of returning, few actually do. This leaves them in the town, but without a total commitment to town life. As a result, such decisions as to getting better jobs, buying a larger house for an expanding family, saving, etc., are difficult to make, let alone to plan.

This report has presented many of the characteristics of town life in a negative way. There are some natives who have achieved quite noteworthy successes in the town, through steady job-holding and the acquisition of certain material luxuries. But these adaptations are remarkable in the light of how the 'cards are stacked' against native people, because of certain features in the town life of Inuvik, and because of certain elements of the old fur-trapping culture which tend to restrain an easy adjustment into town life.

2.3 AGE, THE GENERATION GAP, AND CONTACT EXPERIENCE

Their history of contact with Canadian culture has contributed greatly toward the shaping of the attitudes and the achieving of adaptability to town life, for the native people in the Delta. Partly because of the differences in the intensity of social change over the last fifty years, a rather serious 'generation gap' has developed. Aside from the fact that few of the younger people can identify with the bush culture or speak the native languages, a severe lack of continuity in ordinary communication and attitudes has developed between the generations.

Table II

Age	0-14	14-25	25-50	50+	Not Recorded	Total
Number	383	153	154	45	97	832

Age Structure of Inuvik's Northerner Population, residing in the Unserviced Area, June 1966

Source: Industrial Division, Department of Indian Affairs and Northern Development

It can be seen from Table II that over half of Inuvik's Northerner population is under the age of fourteen. This of course results in profound problems for the welfare and educational administrative authorities, both for now and for the future. However, little of the field work was focused on this generation. Age will be discussed according to the three older categories, in connection with differences in behaviour and attitudes. It should be noted that there

will be some overlap because of certain life-chances that have affected individuals within these generations. But, on the whole, the following generalizations are valid.

2.31 The Old Folks 50 years and Over

This generation is almost entirely bush-oriented. They passed their formative years during the height of the fur trade, and many at one time achieved lucrative returns from trapping. Most of them now depend upon old-age pensions and other government assistance. Understandably, they are confused by the recent and rapid changes. Consequently, they are somewhat on the fringes of town society, and do not occupy as revered a position in their family and community as they might have occupied in the past. This is sad in light of the fact that the bonds of affection used to be especially strong between alternate generations (grandparents and grandchildren). I have been told of instances in which teen-age natives have turned on the radio when old men attempted to tell stories about the traditional culture.

The town has very little to offer the old people, except security in the form of material comforts and health facilities. I recall how animated two elderly Eskimo men became while watching for whales on a hill at Kendall Island. They became rather excited at the prospects of the hunt, and of course recalled many happy memories of the time when they were young men. But in the town, they seemed rather lonely and fatalistic about life.

2.32 The Generation 25 - 50 Years of Age

This generation grew up during the ending of the fur-trade era. Their values were formed in a bush milieu. It is this generation who have the greatest difficulty in adapting, and who represent the crux of the adjustment problem in Inuvik.

With the decline of fur-prices and the introduction of high paying D.E.W. Line construction jobs in the early 1950's, many of these people abandoned their trap-lines and equipment to seek wage-labour. The D.E.W. Line was finished in the late 1950's, but the building of Inuvik had begun, and there was a continuation of construction work. Although a few returned to Aklavik and the bush, the majority remained in Inuvik.

The members of this generation are frustrated because of their lack of education, and because they feel that they are not fully equipped to participate in town life. They resent 'eight to five jobs' and being ordered about in seemingly trivial tasks, missing the independence of the bush. One of them complained to me, "There are too damn many foreman around; they're always pushing us around. Now they've got us working under the pilings at the school, taking out dirt. It's hard, hot work, and we have to crawl on our knees," he said.

Few native people have any desire to become foremen, because it would set them apart from their friends. Furthermore, they can make \$2.05 an hour as labourers, and only \$2.15 as foremen. As a result, the majority of the foremen are whites or Métis.

Job-absenteeism is a chronic problem. This can be partly attributed to the desire for autonomy. But also, many feel that they can live on their pay-checks for a month, perhaps supplemented by welfare assistance, and then return for another job.

The indulgence patterns of the bush have remained, most notably in drinking behaviour. Because of these problems, it is difficult for such people to advise their children who are growing up in a totally different setting, and to provide behaviour models for them. However, a few remarkable individuals have made good adjustments (although they, too, miss many of the features of bush-life). These people were fortunate in that their successes were stimulated by unique life-chances. One Eskimo was given special attention by his foreman, who encouraged and advanced him. An Indian told me of his experiences as a T.B. patient in Edmonton. While convalescing, he attended a local high school and achieved a grade ten education. He was encouraged by a remarkable and compassionate teacher who gave him confidence, showing respect for his bush way of life, and at the same time showing

him how he could succeed in an administrative position. Both of these men now hold steady jobs, and are prominent in native organizations. Deeply personal patronage by white men towards native people can have very rewarding consequences.

2.33 The Young Generation 14 - 25 Years of Age

Most of the members of this generation have experienced little of the trapping way of life, having been brought up in the new town. But since their parents' values are bush-oriented, many of these same values are being passed on to them. Children are still raised in a rather indulgent manner as was the custom in the bush. But in the case of bush life, the environment was the disciplinarian, since the harshness of living conditions forced self-discipline. It is difficult for the present generation to turn to their parents for advice, since many of the parents are ill-prepared to give advice having any application to town life. As a result the children's respect for their parents tends to be low. Similarly, many are ashamed, or at least confused, about their native origins and identities. Few indicated any desire to become trappers.

There is considerable confusion with reference to goals, especially where occupational aspirations are concerned. One pretty and very feminine eighteen-year-old Eskimo girl, entering grade twelve, told me that her desire was to become a lady-wrestler. When I asked her where she got that idea, she replied, "From men's magazines." At a time when the Canadian army was setting up a recruiting station in Inuvik, a twenty-year-old Métis boy told me that he had decided to join the army. He said, "I'm a bum. I'm not doing much good around here. I might as well join up, and go over to Viet Nam and get killed."

As with most adolescents, the young natives direct their attention to activities, such as movies and the latest dances, which generate excitement. Lately, too, there has been considerable drinking among this group, and the occurrence of some juvenile delinquency in the form of petty thefts and assaults.

These problems with the younger generation are further intensified by the lack of continuity existing between the home and the school system. It is with this generation that true social stratification may develop, since only a few will have education and work values reinforced at home, while many others may become 'dependency-oriented.'

2.4 SEX AS A SOURCE OF CONFLICT AMONG NORTHERNERS

Conflict between the sexes is not too noticeable in the two older generations, but has very serious disruptive consequences among young people. The young girls appear to be the most acculturated of all age-sex categories in the Delta. They have made more of their educations, many holding steady jobs (as nursing aides, store clerks, waitresses, baby sitters, etc.). Most are comparatively sophisticated in terms of style-consciousness and general knowledge of urban life, valuing the excitement of Inuvik. This may be a search for emancipation from the hard life implicit in the feminine bush-role.¹ Also, the young girls have an advantage in that the types of occupations they can hold are not in conflict with skilled labour from Southern Canada, as is the case with the males.

The 'Ice Worms' present the most striking and interesting example of this phenomenon. The 'Ice Worms' is the name of a sorority-like association, involving white nurses and native girls hired as nursing aides, and as other hospital help. Most live in the comparatively luxurious hospital residence at low rents. Secret 'initiation rites' are involved, and a softball team is supported. Native girls in the 'Ice Worms' are seen frequently with white males (predominately Navy men), and rarely with native boys. They do most of their drinking in the cocktail lounge of the Mackenzie Hotel, rather than in the beer parlour with the rest of the native people. Less sophisticated girls envy them, but of course also resent them as members of a clique.

Clairmont's statement (1963: 7-11) concerning rejection of native males as mates, and infrequent and late marriages for the girls, holds true, according to my observations. Several girls told me that they wanted to marry white men, especially Navy boys. The attitude towards native boys is neatly expressed by one girl's response,

¹ As a graphic example of this, I had an occasion to watch Eskimo women butcher and dry whale meat on Kendall Island. This appeared to be no mean task.

"We look upon them as little brothers." At a dance, I saw an Indian boy attempt to speak to a Métis girl. She replied, "Get away from me; you can't even speak English right."

This rejection of native males, and the valuing of transient white males, results in a situation of mutual exploitation between the transients and the girls. The girls will go so far as to seek out Navy men, construction and barge workers (both single and married¹), gaining presents from them, most notably in the form of beer. Generally speaking, the girls do not profit in the long run from this mutual sexual exploitation. Many of them are burdened with illegitimate children and contract venereal diseases which are especially prevalent.² Very few of the transients marry native girls.

Surprisingly, the young native males rarely show direct resentment or aggression towards the transients. More often, resentment is indirect, as expressed in this sort of statement, "What the hell do they need all of those sailors for? Where is their ship?" Complaints about the native girls come more often from the older people, who sometimes severely chastize them, even to the point of de-emphasizing the role taken by the transient males.

2.5 INUVIK'S SETTLEMENT PATTERNS

As Mailhot (I. p. 1) points out, the division into 'serviced' versus 'unserviced' areas of town strongly structures the social organization of Inuvik. She further suggests that Inuvik is not a single community, but two communities with differing interests.

There is a shortage of housing at both ends of town, and priority for serviced housing is given to transients. It is argued, with some validity no doubt, that transients can be attracted north only if they are assured the comforts of southern Canada. These services include furnished apartments and housing units at low rents. These are attached to the utilidor system, which consists of running water and a sewage system, enclosed in insulating materials and raised above the ground. Furthermore, many of the transients have rations allowances, permitting them to buy food at wholesale prices from Edmonton outlets.

Most of the facilities used by all of the town's residents (churches, the theatre, hospital, the stores, etc.) are hooked onto the utilidor system, and therefore concentrated mainly in the transient end of town. During the summer of 1966, there was a controversy over the proposed site of the Y.W.C.A. residence for women. The approved location was well within the serviced area. However, the residence was meant primarily for young native girls, to ease the situation of over-crowding in the unserviced area, and to assure the girls better living conditions. Some of the girls objected to the proposed site, asking that the building be placed near the unserviced or native section, where they felt more at ease being near friends and relatives. They started a petition to gain support for their own proposal.

Because the native component consists largely of unskilled people without government jobs, it occupies the unserviced and overcrowded section of town. Here, dwelling units consist of a few arctic-adapted ranch-style houses, of '512's' (prefabricated homes with floor spaces of 512 square feet), of welfare cabins, and of some tarpaper shacks. Few of the occupants have rations allowances, and all must pay heavy oil, water, and electric bills. Sanitary facilities are primitive in comparison with the serviced area. Sewage is disposed of at scattered stations, in the same structures where water also can be obtained in buckets. The absence of a utilidor system in the unserviced area symbolizes racial discrimination for many Northerners.

During June, 1966, there were 414 Eskimos, 130 Indians, and 288 'Others' (a large percentage being Métis and people of Eskimo-white intermixtures) living in the unserviced area.³ Within the unserviced area, ethnic clustering is not rigid. However, taking this region block by block, we find a few interesting clusterings (both ethnic and social) which reflect some common-interest groupings and greater frequency of social interaction. Overlap is much greater within this region than is the overlap of interests between the serviced and unserviced ends of town.

¹ One of the most popular songs among native girls is a Country and Western Song entitled, "Married men who think they are single ... Have broke many a poor girl's heart."

² A local health officer informed me that the venereal disease cycle can be neatly traced to the arrival of the barges during the spring ice break-up. By mid-winter the disease is usually under control.

³ Taken from the census data, compiled from the Housing Survey done by the Industrial Division, Department of Indian Affairs and Northern Development.

Taken block by block the distribution of household heads showing ethnic origin and other social characteristics looks like this:

- (i) 'Co-op Hill' (Block 32) is located on a rise of land in the northeast section of Inuvik. Houses are ranch-style. Sixteen Eskimo and one 'Other' households are located on the hill. All but five are *Pentecostal*. The majority of the town's *Pentecostals* live on the Hill, and they constitute the tighest of Northerner sub-groupings. One of the *Pentecostals* and four of the rest are very prominent in community affairs, providing the bulk of the native leadership and overlap of community interest with the serviced end of town (Town Advisory Committee, Community Council etc.).
- (ii) Two blocks (14 and 19) consisting entirely of 'Others' (ten households) living in 512's near the serviced end of town. Most of these people are rather prominent in the commercial and political affairs of the town.
- (iii) A large number of blocks that are ethnically mixed, with '512's' being the predominant house type.

	<u>Indians</u>	<u>Eskimos</u>	<u>Others</u>
Block 1	-	-	3
Block 2	1	-	2
Block 4	1	3	7
Block 5	2	2	4
Block 6	2	1	2
Block 8	2	6	9
Block 9	-	6	3
Block 10	-	4	1
Block 11	1	1	12
Block 12	1	6	3
Block 13	2	3	4

- (iv) There are two areas of government-owned welfare housing. One (Block 17) is located at the center of the unserviced area, the log-cabin being the standard house type. There are 19 Eskimo and 2 'Other' households.

A second welfare area of prefabricated cabins is located below Franklin Street near the waterfront. The population of this area is temporary. At the time of the survey, it consisted of 3 Eskimo, 2 'Other', and 5 Indian households.

- (v) 'Happy Valley' is located near the waterfront in the vicinity of Twin-Lakes. In the summer of 1966, it was occupied by four households of migrant Indian workers from Arctic Red River, living in temporary tar-papers shacks.
- (iv) The waterfront is occupied by bush-oriented Eskimos in their short visits to Inuvik. During the summer of 1966, the number of tents in this area varied from 2 to 6.

2.6 SOCIAL STRATIFICATION

Social stratification among Northerners is difficult to assess. One runs the risk of applying southern Canadian criteria, based largely on material symbols of success. The desire for material acquisitions and high status seems to be low. However, some native individuals have gained respect and prominence for their occupational successes and roles as 'spokesmen' for native interests in formal organizations. Conversely, those able-bodied people who rely consistently on welfare are held in low-esteem. Yet these criteria for status are quite loose, and there is certainly no tight class-structuring among Northerners.

Although social stratification, within the Northerner grouping, is not of operational importance now, it will undoubtedly be so in the future. Very different attitudes towards education, success, and status will be transmitted to the children of steady job-holders from those handed down to the children of people consistently living on welfare and of the bush-oriented people.

Vallee (125) points out that at Baker Lake the local 'Kabloona' (whites) hold all of the important positions of power, and have the bulk of material wealth in contrast to the Eskimos. Yet this is not a true caste situation, since there are no rules denying Eskimos access to certain occupations, nor are there rules limiting marriages across ethnic lines.

For similar reasons, a true caste situation does not exist in Inuvik and the Delta as a whole. However, there are 'caste-like' feelings developing among members of the native population. Some people feel that they are being prevented from having free access to jobs and other benefits because they are native. One Indian told me, "I lost my job with the Geodetic Survey and they brought a white man in from the south to replace me. It's because I'm black, because I'm an Indian."

This distressing situation forecasts difficulties for integration within the Delta and certainly with regard to moving colonies of Indians and Eskimos south into the industrial cities of Canada (see Jenness: 166-183).

2.7 THE POTENTIAL OF NORTHERNER ASSOCIATIONS

The formal organizations of the native people of the Delta are somewhat weak. As the Honigmanns noted at Frobisher Bay (Honigmann and Honigmann, 1965: 120) a 'vacuum of leadership', so a similar situation exists in Inuvik. Mailhot has reported the proliferation of southern middle class organizations and clubs in Inuvik (Mailhot Chapter II, Table 88). The membership and viable leadership in these organizations is essentially transient white. Native people are found in both the membership and executive lists of these organizations; but as Mailhot has pointed out, they constitute a small minority. They are spread throughout, and not concentrated in any one organization. Thus, the potential for native leadership is spread too thinly for any effective action toward attaining power, and even those organizations which have predominately native memberships suffer from a lack of concentrated attention.

Four organizations will be discussed: Ing-a-mo, the Inuit Housing Cooperative, Advisory Committees, and the Loucheux Band Councils.

2.71 Ing - A - Mo.

Ing-a-mo, the year-old native recreation organization is still in the formative stages, in spite of a sharp rise in membership (presently 256, compared to 51 in the summer of 1965). The effective leadership, before the summer of 1966, was carried out by two white civil servants of 'Northerner' inclinations. However, both these men have been subsequently transferred to other settlements. This winter (1966-67) should reveal whether a native response will meet the challenge of the 'leadership vacuum.' The potential is there, but as previously noted, it is diffuse.

Ing-a-mo was formed with the more traditional native culture in mind, and with a focus on the older people. Ing-a-mo Hall was to be a place where Eskimo drum dances, Loucheux 'tea dances,' and story-telling sessions were to be organized. However, the old people have not responded as hoped. Up until now, Ing-a-mo Hall has been primarily a centre for teen-age dances. The facilities were shut down briefly last summer by the executive because of complaints of drunken rowdiness. During the summer, Ing-a-mo conducted a few playground activities for children. Also, the newly formed 'Inuvik Drummers' (Eskimo Drum Dancers) were planning to use the facilities. Plans have been made to expand the building facilities and the recreation lounges.

Ing-a-mo is far from realizing its full potential. Aside from its primary role as a recreational center, it could serve as an educational outlet in helping new migrants adjust to town life. Most important of all, it is a potential training ground for Northerner leadership and could provide for the emergence of Northerners as an effective power group.

2.72 The Inuit Housing Co-Operative

In some ways, the Inuit Housing Co-operative, predominately Eskimo, can be considered the most successful example of Northerner assimilation to Canadian town life. Seventeen modern houses have been completed, all but one owned by Eskimos. However, the organization is running into some difficulties. Since Mailhot's investigations, there have been no further additions of native-owned or occupied houses. During the summer of 1966, three houses were being constructed, but all of these were being built by whites who had decided to settle in the North. Furthermore, two of the houses were not on 'Co-op Hill,' but were plugged into the utilidor system at great private expense.

So far, no more native people have recently shown much interest in building Co-op Houses. Enthusiasm within the organization has waned since the original spurt of building activity took up so much time. As a result, the executive has found it difficult to organize the group into buying secondary materials and into constructing further interior work. Also, since the building of the houses was expensive, many of the members are deeply in debt, finding it difficult to buy much in the way of furniture and appliances.

2.73 Advisory Committees

The Advisory Committees in settlements in the Delta assist the government in the administration of the settlements. They are usually made up of elected and appointed local people. Advisory Committees are becoming important in that they are considered to be training activities for future self-government in the Territories. Each community in the Delta, except for Reindeer Station and Arctic Red River (where the Loucheux Band Council fills this role), has an Advisory Committee. The following table indicates the ethnic backgrounds of the Advisory Committees in the various Delta settlements.

TABLE III

	<u>Indian</u>	<u>Eskimo</u>	<u>White</u>	<u>Métis</u>
Inuvik	—	1	4	1
Aklavik	1	—	3	2
Ft. McPherson	3	—	3	1
Tuktoyaktuk	—	4	—	—

Ethnic Composition of Settlement Advisory Committees in the Inuvik Region.

The Inuvik Advisory Committee consists of six members with voting powers, with the area administrator acting as secretary. All but one member reside in the unserved area. However, the exception is a Northerner of long standing. 'Bonafide' native membership in the Inuvik Committee is low in comparison with the other settlements, but the orientations and interests of the Inuvik Committee are Northern.

On April 12, 1967, Inuvik is to be granted true village status, with a village council which will gain greater powers, and also more responsibility. Other settlements have rejected village status because they feel that the advantages of increased self-government do not offset the burdens of increased taxation.

One of the options of control and financing that a village council has is the responsibility for sewage and water facilities. Of course, in Inuvik, the greatest expense in this regard would be the maintenance of the utilidor system, which benefits only the non-permanent population of the town. It was decided at a committee meeting

to leave this responsibility with the government, but with the option of the village's taking over responsibility later (presumably when the utilidor system is extended through the whole settlement).

Advisory Committees have the advantage of providing training for self-government in the Territories. They also help to maintain some continuity of administration in the settlements in view of the fact that there is a considerable turn-over of government personnel. The members of these committees are able to inform new civil servants of both individual and community needs.

2.74 Loucheux Band Councils

Inuvik does not have an Indian band council, but the Loucheux residents of that settlement fall under the indirect jurisdiction of the Arctic Red River, Fort McPherson, and Aklavik Band Councils of the Aklavik Agency. In 1921, treaties were signed with the Loucheux people forming the Arctic Red River and Fort McPherson Bands. As a result, the Canadian government received rights to the lands of the Loucheux. Band councils were formed with elected councillors and chiefs. Annual treaty payments were given in the form of \$25 per chief, \$15 per councillor, and \$5 per band member, plus ammunition and fishing allowances (Slobodin, 1962: 40).

Some feel that the roles of the band councils are becoming obsolete today. As there are no reservations in the Territories, the responsibilities of village jurisdiction are minimal. This function has been taken by the government with the assistance of local Advisory Committees. The band councils have some say in the administration of the Indian Housing Programme and in Treaty payments. However, with reference to the latter, many Loucheux feel that these payments are useless, since they were determined by 1921 costs of living. Also, local interest in council functioning tends to be low. Probably in the future, band councils will continue to decrease in importance and Advisory Committees will become increasingly significant.

The recent amalgamation of the Department of Northern Affairs and National Resources with the Indian Affairs Branch of the Department of Citizenship and Immigration has created a great deal of optimism among the Loucheux chiefs and councillors. Now Indians and Eskimos will come under the jurisdiction of the same Department (Indian Affairs and Northern Development). Because of this, the Loucheux feel that the discrepancies in benefits (welfare and housing), formerly to the advantage of the Eskimos, will be eliminated.

3.0 INDIVIDUAL AND COMMUNITY PROBLEMS

3.1 HEAVY DRINKING AS INUVIK'S 'NUMBER ONE' SOCIAL PROBLEM

There can be little doubt but that heavy drinking presents the most serious adjustment problem confronting Northerner townspeople. Campaigns (largely futile) are constantly being directed against drinking by the local churches and the town's newspaper. The greater part of the local R.C.M.P. contingent's activities is directed toward misdemeanours arising from intoxication.

As has been stated, few native people drink in the cocktail lounge of the Mackenzie Hotel, since this is primarily a white man's bar. Those who do drink there on occasion feel rather ill-at-ease, and are usually evicted at the first signs of intoxication. The management seems to have a covert policy of discouraging native drinking there, both by the high price of beer, and by a cold and no-nonsense attitude towards native clientele.

Instead, most native drinking is done in the beer parlour (or the 'zoo'), which is about the only consistent source of native public entertainment. This applies by vicarious extension to the under-age youths who linger on the front porch hoping to take part in the excitement that results from the adults' drinking. Inside, the bar is normally crowded with Indians, Eskimos, and Métis of both sexes, plus male transient construction workers, and an occasional young enlisted Navy man. Friday and Saturday nights, plus the often unscheduled days when long over-due government paychecks arrive, are the times when the drinking is heaviest. Waiters frequently cut off those who have had too much. This usually results in much hassling and protest, but the recalcitrant customer eventually complies with eviction force and retreats to the porch, where he may wait for an opportunity to return. When drinking is heavy, the stage is set for combustible behaviour.

If an individual fight starts, hostilities may flare quickly, stimulating further fights among other drinkers. One uproar I observed involved fifteen people (ten of whom were transient workers). Originally, the fight involved only two people, but others joined, ostensibly to help end the fight, and then found themselves fully involved.

At closing time, many of the bar's patrons arrange private parties in the unserved end of town. Cases of beer are bought over the counter, and the customers then mingle on the porch, waiting for taxis to take them home.

Although heavy drinking can be attributed to a general 'frontier atmosphere,' and the search for good companionship, motivations and causes go much deeper. It is certainly clear that drinking is done for an explicit purpose, to reach a state of euphoria. Responses to my question, "Why do you drink?" included, "To get drunk," "Because when I drink, I feel good", "When I drink, I'm not scared of anybody, including the Mounties."

Underlying this seeking of the solaces of inebriation, are anxieties due to unfavourable conditions arising from the urban setting of Inuvik. Some people, in ascribing motivations to others, say that it is because of "generalized depression", that they feel they "could have been 'somebody' but are 'nobody.'" Therefore, depression, self-dissatisfaction, anomie, and economic frustration present valid explanations for certain group and personal aspects of the drinking (Clairmont, 1962 and 1963).

Also, the prevalence of excess drinking can be partly explained by the persistence of the bush theme of indulgence in consumption. In the bush, when food was plentiful, it was quickly consumed, since the future might not bring such plenty. This also applied to drinking behaviour before the arrival of licensed outlets. One Eskimo, who no longer drinks, told me: "When we used to have home-brew parties, there had to be more than one bottle, otherwise it was not worth our while, since the party would end too quickly." A rather prominent Aklavik Indian me, "When I have booze, I drink it all up, and I don't drink it slowly like white people. I damn well intend to go on drinking this way."

Whatever the causes and motivations, few native people ignore the heavy social costs involved. Social cost implies the sacrifice of certain values in order to satisfy those values associated with drinking, hurting both the individual and the society (Lemert: 367). Many native people in Inuvik very definitely relate the basic causes of their problems to their inability to avoid the Mackenzie Hotel and the Territorial liquor store.

Too, the economic cost is high for the liquor, and for the consequences of excessive consumption. Beer sells for 60 cents a bottle, one of the highest prices in Canada. Beer parties outside of the hotel are usually not planned. As a result, the usual pattern is to buy a case of two dozen bottles over the counter of the bar at \$12.00, rather than at the liquor store, where the price would be \$7.50. Obviously, economic frustration is compounded by these costs.

For example, one bush-oriented Eskimo told me of a schooner which he wanted to buy, costing \$800, and which he felt would be invaluable to him. But he said that he could not purchase it because he had spent too much on liquor. A young town Eskimo felt that he made a very good salary (\$2.50 an hour) but complained that he could not make better use of his money because he could not resist beer.

The sharing ethic holds most strongly in relation to drinking. Those holding steady jobs treat the unemployed. This is reciprocated when the others have the cash. In one sense, this custom can be considered as having positive social value, since it does help to cement social bonds through exchange. Yet many steady job-holders, trying to save money or to pay off debts, complained about this; but they find it difficult to avoid the 'obligation.' Furthermore, these steady job-holders find it necessary either to drink in small groups or to abstain altogether, because many of the local whites tend to equate a 'good' or 'progressive' native with an abstainer. This causes additional converse difficulties, since the steady ones are limited in their good fellowship with the drinking natives, and are often considered 'snobs' by the latter.

Most serious of all, the family suffers from heavy drinking. It is reported that family allowances and welfare payments are sometimes used for the purchase of liquor, with the undernourishment of children often resulting. Furthermore, trouble with the police seems almost entirely associated with drinking, through fights and the theft of liquor, and of money for its purchase.

How do some native people solve their drinking problems? One Eskimo returned to the bush several years ago because he felt that this was the only way that he could escape the hotel, the liquor store, and the associated problems. Others are able to abstain through their membership in the Pentecostal church, which has very strict taboos against drinking. However, very few have been able to solve the problem of heavy drinking through individual self-discipline. It is obvious that liquor has to be absent, or there has to be strong social support for abstinence, since the social milieu of drinking is very hard for native people to avoid. In their frustration, several people told me that they wished the Hotel would burn down so they would not be able to drink anymore. Furthermore, many are confused about the liquor laws, and cannot identify with the morality supporting them. "The white man brought us booze, and then he turns around and arrests us for drinking it. It's not fair."

Although it has been pointed out that not all Northerners are heavy drinkers, heavy drinking is certainly the most dominant problem, and ultimately affects all the residents of Inuvik.

3.2 MARGINALITY

This section will discuss certain variables impinging from the outside that place individuals of the Northerner population in marginal positions. For the purposes of this report, a marginal position is defined as a situation which makes it difficult for an individual to interact consistently with any one group, in that he has some but not all of the qualifications for membership, some lack almost always negating complete acceptancy by any of these groups. This usually results in the marginal person having an ambivalent, if not hostile attitude towards the values of one or all of these groups.

There are, of course, people who have full criteria for membership in a specific group, but who are ostensibly rejected by that grouping because of certain personality attributes, or because of acts committed that are not group-approved. These individual attributes will not be discussed in this report. What will be emphasized are those conditions which create marginality situations for certain people as a result of recent contact and rapid culture change, in other words, the effect of white and southern Canadian culture upon Northerners.

In the town of Inuvik, there are the pulls of the bush versus the ties of the town that place people in a marginal position. This applies to steady job-holders who very often long for the freedom of the bush to which they realize they cannot return. Their association with relatives and friends, living either temporarily in the town or in the bush, has lessened. Some of these people run the risk of being victims of gossip, because of their closer ties with white transients. Of course, although there is a fair amount of friendly interaction with white transients in formal organizations, interaction is largely limited to this sphere.

Others can be placed in marginal positions for the opposite reasons. I spoke to several young men who had come in from the bush and tried to take up wage-labour. They found it difficult to keep jobs, since they were frequently absent. Also, they did not like the kinds of manual work to which they were assigned, and they longed for

the autonomy of the bush. Most of them would linger around town, staying with one relative and then another, borrowing money and spending much time in the beer parlour. After a while many of the towns-people would begin to tire of their presence, especially if it did not seem likely that they would ever be able to repay their debts. Several of these young men told me that they were quite worried about their futures, since they lacked education. They felt that trapping was not a very secure way to make a living, that it held little if any future promise.

The most serious cases of marginality are often evident among those with a mixed racial heritage. Several people I know, living Eskimo bush roles, possess strikingly Caucasoid features. These people are frequently teased and on occasion called "Danig" (derogatory Eskimo term for "white man"). Other legally designated Indians and Eskimos with Caucasoid features frequently find it difficult to know with which group they should interact, often vacillating uncertainly between the Native and the white. This is especially true of younger natives who have spent the early years of their life in the bush, but then were later isolated from it in school hostels. I remember an occasion when one of these people was talking with some old native friends. One of the latter said, "Why don't you see us any more? You spend all of your time with the white people now." It is from people put in such marginal positions that one most often hears bitter remarks about white people, and how "they have ruined the North."

Young unmarried girls with children are the objects of gossip and ridicule by the native community. This is a comparatively recent phenomenon. At one time, especially with three-generation families, these children would easily have been accepted into the girls' families. This still occurs to a certain extent, but there is a growing stigma against illegitimacy, possibly as the result of an incorporation of Canadian middle-class values. Many of these girls at present live alone with their children, often considering themselves social outcasts, since their chances now for marriage seem quite slim.

Many of these factors, as illustrated above, may affect a single individual, and may place him simultaneously into several positions of marginality. Obviously, this results in a great deal of mental suffering, which in turn contributes materially to instability, both individual and social.

3.3 NATIVE RELATIONS WITH WHITE TRANSIENTS

The intensity of native interaction with transients is highest with seasonal construction workers. Since the greater part of native wage-labour is in construction and other manual labour jobs, this is natural. These job associations are continued on into the evenings in the beer parlour of the Mackenzie Hotel, at parties in the bunk-houses, and in homes in the unserved end of town.

On the other hand, native interaction is minimal with transient white collar workers and agents of government who dominate the town, drinking at the cocktail lounge of the hotel and at private parties in the served end of town. There is inter-ethnic interaction on the job, but even here it is more often than not of an indirect nature, through directives delivered first to foremen. Some natives have more to do with these people through the formal organizations and clubs of the town. But, as was noted in the section on formal organizations, these contacts are limited in number.

This situation limits the range of behavioural models for individual native people to draw from in learning about European-Canadian culture. Because of more common interests, the native person is drawn to a working class culture in his daily activities. Interaction is low with the bureaucratic culture of the civil servant because the degree of common interest is presently low.

It is difficult to assess the quality of behaviour learned by the native people from the construction workers. Elements of culture introduced (or at least reinforced) by the construction workers include manual and technical job skills, perhaps certain aspects of material culture, country and western music, pulp magazines, and possibly certain aspects of drinking behaviour, etc. It would be impossible to attribute positive or negative values to these elements without careful and more extended research.

However, since these workers are for the most part transient, and do not have a permanent stake in the North, there is quite naturally no conscious effort on their part purposely to help direct change for the Northern people. Furthermore, since these men come up for a short time only, they rarely bring their wives, and the culture they introduce is that of single working-class males.

There are a few people, not having manual labour occupations, who interact frequently with native people. These include a young doctor, an R.C.M.P. corporal, a few teachers, the editor of the local newspaper, and a few civil servants. Some of these attempt to champion the natives' rights through petitions, the writing of articles, and letters to members of Parliament. As yet, these activist efforts have had little effect, either through establishing reforms or in inducing native interest and participation. Those that gain the most respect from native people seem to achieve the most effectiveness through informal discussions which attempt to show the natives a wide range of alternatives and their probable outcomes, and by explaining values that are associated with Canadian town life.

Little can be said about this topic at this time because of the lack of intensive research. But it is certainly obvious that the make-up of the transient population strongly affects the nature of social change in Inuvik.

4.0 SUMMARY AND CONCLUSIONS

Ethnic factors alone no longer have primary importance in determining the nature of social interaction, or in the defining of tight groupings in the Delta. Faced with the growing threat of dominant southern transients assuming positions of power, Eskimos, Indians, Métis, and long-time white residents are realizing that they all have interests in common. The 'Northerner' category has arisen as a response to this threat and as an opposition to the 'Southerner' category. Style of life has therefore become more important in determining social groupings. The Northerner town life style is akin to a working class one, in which Indians, Eskimos, Métis, and some descendants of white trappers merge together as subordinate in status and socio-economic position to the dominating Southerners. As yet, the Northerner category has not jelled into a grouping powerful enough to counteract Southerner dominance and power. Social stratification within the Northerner population at present is of minimal importance; but it will probably become of increasing significance in the future as differential attitudes towards success, status, and education are transferred to the younger generation.

There are several factors which tend to work against the achieving of a more rapid and successful acculturation of the Northerner population to the new town situation. Among these factors are some that have come in from the outside, and some which have resulted from the structuring of Inuvik. These include the economic, educational, job-skill, and housing lacks which affect the natives, and put them to such disadvantage vis-a-vis the white transients. Other conditions inherent in the former bush culture retard adaptation to the town. These include the sharing and consumption ethics, and a derogatory attitude towards conspicuous status-seeking.

An attempt has been made to demonstrate that the crux of these problems lies with the generation 25-50 years old. These people were raised in a bush milieu with bush values. However, they are now operating in a Euro-Canadian town-setting where these values seem detrimental in nature, at least to initial economic success. Their problems and attitudes are being naturally transferred to their children. It is naive to think that the problems will be solved in the future by considering the children as 'clean slates,' or that their education in the school and hostels will prepare them with job-skills and middle class attitudes.

A further problem is brought about by the more rapid acculturation of young women, resulting in heavy social costs accumulating from the sexual exploitation of these women by the whites, and by the virtual rejection on the women's part of native males as mates. Heavy drinking is the predominant problem in Inuvik. Heavy social and economic costs are apparent, affecting even the non-drinker.

Finally, numerous conflicting pulls act adversely upon individuals. These include 'caste feelings,' conflicts over style of life, mixed ancestries, and gossip brought about by changed values. These pulls bring about marginal situations and attendant mental anguish.

In conclusion, it may be stated that there is a great deal of room for further native adaptation to the Inuvik town culture. Inuvik's existence is still artificial, because of the fact that change was directed without foresighted planning, and the town itself does not blend well with the Northern culture. Also, because of the nature of the social structure of contact, the native population is largely restricted to one element of Canadian culture, that of the working class. This in turn narrows the range of possibilities in the selection of Canadian culture. In the future, many of these problems may be solved if the Northerner grouping becomes more powerful, and its members develop a greater awareness and pride in their identity, realizing that they have the most realistic and permanent stake in the North. This will be enhanced if organizations with Northern interests such as Ing-a-mo and the Advisory Committees become more powerful.

The following section presents recommendations of both a specific and a general nature that might possibly alleviate some of the problems of Inuvik and the Delta.

5.0 RECOMMENDATIONS

Social change in the Mackenzie Delta has been largely directed, rather than undirected. This is so since the crucial and most obvious set of changes is focused around the construction of Inuvik, a planned town. Because of this fact, the native people of the Delta were exposed to a town setting, which thrives in the southern part of Canada. The evidence supports Fried's contentions that there has not been enough time for these natives either to assimilate successfully the behaviour patterns and values which are characteristic of Canadian town life, or to initiate the innovation of a new set of values to which they could more fully adapt and which would meet their own needs and wants (see Fried: 94 and Introduction, page 2).

To be sure, there has been adaptation in respects. A native person can achieve a living by relying on part-time manual jobs, supplemented by relief payments. He can spend part of the time in the bush, part in the town. He can spend a great deal of time in the Mackenzie Hotel, enjoying the company of his friends. But, as the ethnographic sections of this report should have indicated, there is a great deal of general unhappiness contributing to mental and social instability. The native people are unsure of their personal futures, the futures of their children, and of native people as a whole. If the trend continues, they may come to see themselves as a 'caste,' unfavoured by education, missing out on economic benefits, and generally lacking in opportunities.

As a general policy recommendation, it is important that any future changes or policies be made with the idea of maximizing the range of choice available to the native person, that he can be prepared to make more decisions himself, that the means for making the choices are fully available to him, and that he is fully aware of the consequences.

At present, Northerners think of the Department of Indian Affairs and Northern Development as the agency of a colonial power, with its basis of control in a distant office in Ottawa. Having this attitude, they quite naturally resent many of the government's directives, even though these may be well-intentioned. If only for the sake of good-will, it would be best to dispel the image of the government as a colonial power within its own national boundaries. Positive steps have been taken with the growing powers of the Territorial legislature. As a general policy, then, steps should be taken to maximize the range of choice offered to the Territories' native people. This would pay off in two ways. Northerners would be able to create a more realistic adaptation to the now very artificial setting of Inuvik; and internationally, Canada would gain greatly in prestige.

A set of recommendations will now be presented. They have been formed with the above general philosophy in mind, and attempt to relate to the ethnographic section of this report (sections 1 to 4). Some of these will suggest specific governmental policies; others will be of a more general nature. It is fully realized that some may not be realistic for perfectly valid administrative reasons (e.g., present policy guide-lines, financial considerations, etc.), or for other reasons presently unforeseen by the author.

RECOMMENDATIONS

1. An intensive adult education program in Inuvik, stressing the values that accompany town life, should be established. Goal-orientation should be stressed. The program should not be massive in nature, and should be separate from the regular program at the Sir Alexander Mackenzie School; that is, it should be adult in format and include only adults. The teacher-student relationships should be very personal. It is my belief that the only way of assuring the successful adaptation of the children is through reinforcement by the adults at home (see sections 2.22 and 2.3).
2. The Delta Trappers' Association should receive the encouragement and possible financial support of the Delta. At present, the Association is rather dormant, but there has been renewed interest among the native population. The Association could provide a means of better equipping those already on the land, and possibly of rehabilitating a few in the town who are temperamentally more suited to trapping and bush life, but who are inhibited by lack of equipment (see sections 2.2, 2.3, and 3.2).
3. A summer's work program for teen-age native males, held in their home settlements under native leadership, could be instituted. Wages, in whole or in part, could be paid by the government. The program might be similar to

the highly successful Civilian Conservation Corps of the United States, active during the depression era. Work might be oriented to the concept of a community (e.g., building roads, clean-up projects,). This might be a means of insuring a continuity of the education received in the winter time at the schools. This recommendation was made to me by an Eskimo citizen of Aklavik (see section 2.33).

4. A concentrated study of the welfare program, with the view of eventually increasing the margin between welfare payments and wage-labour so that the pay-off of wage-labour would be more realistic, is very much in order. A serious problem is that many children are being brought up in a 'welfare culture,' and consequently may not be fully capable of adapting to a wider range of activities as adults (see section 2.2).

5. An examination of the current practices of hiring administratively capable natives should be undertaken. There is the possibility that some could be voluntarily transferred to other parts of the Arctic and sub-Arctic where they would not be in such anxiety-promoting relationships with kinsmen and friends, but would still have the advantage of being natives dealing with natives (see section 2.2).

6. Cooperation with the Navy and the Hudson's Bay establishments in training and in making more use of native labour should be initiated. Considering the size of these establishments, their present employment of locals is minimal.

7. Potential native leaders should be encouraged to concentrate their efforts in native organizations rather than in white-oriented and white-dominated clubs and organizations (see section 2.7).

8. Possibly band and disc numbers should be abandoned. They could be effectively replaced by Social Security numbers. This recommendation may not be crucial, but I found that some natives found these designations offensive, in that they implied discrimination and a lower status. Apparently, in the case of band numbers, they are useful in the payment of treaty benefits to the Loucheux Indians. A specific solution should be sought in consultation with the band chiefs and councils.

9. With reference to the amalgamation of the Department of Northern Affairs and National Resources with the Indian Affairs Branch of the Department of Citizenship and Immigration, it is highly advisable that the new Department should quickly eliminate the discrepancies between Indian and Eskimo administration (e.g., the handling of housing and welfare benefits). This is recommended since it was found that the Loucheux are highly optimistic over the establishing of the new Department. The failure to capitalize on this for future and continuing good faith and cooperation would be regrettable (see section 2.74).

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Copy for Mr. Stairs

PA 303-1
1009-3-16

Department of
Indian Affairs and
Northern Development

Northern
Administration
Branch

Ministère des
Affaires indiennes et
du Nord canadien

Direction
des régions
septentrionales

ADMINISTRATOR OF THE ARCTIC
DIVISION CHIEFS

date **Ottawa 4, July 29, 1968.**
our file/notre dossier
your file/votre dossier

Mackenzie Delta Research Project

Attached, for your information, is a copy of "The Northern Tammun in Inuvik" by A.M. Brin which was recently received from the Northern Science Research Group. Additional copies, if required, may be obtained direct from the Chief, Northern Science Research Group.

G.F.W. Rylopp,
Assistant Director





*PA
19/9/67
X*

*1009-3-16
Ont J*

ADDRESS REPLIES:
DEPT. PUBLIC WORKS
SIR CHARLES TUPPER BUILDING
OTTAWA, ONT.

OFFICE OF THE FIRE MARSHAL
NORTHWEST TERRITORIES

September 13, 1967.

Mr. L. Adrian,
Fire Inspector,
Government of the Northwest Territories,
P.O. Box 1363,
Inuvik, N.W.T.

Dear Mr. Adrian:

Re: Extension - Mackenzie Delta Construction

I refer to your letter of September 6, 1967 with which you enclosed a piling diagram for an addition to the present building owned by Mackenzie Delta Construction located on lots 23, 24, 25, Block 20.

A plot plan showing the location of the extension and the present building should be submitted before approval can be given.

Our letter of February 23, 1967 indicates that the original building was to be built on lots 13 - 19 or 14 - 20. Your letter states that the building was erected on lots 23, 24 and 25, Block 20. I am not sure from your letter of September 6, 1967 as to whether the extension is to be located on lots 23, 24, 25, Block 20, or the present building is on those lots.

The conditions under which the Bay were permitted to come within 8' of the Utilidor were as follows:

- 5/8" gypsum wallboard, interior face.
- Wood studs.
- 5/8 tongue and groove lumber or exterior grade plywood.
- One layer of 5/8" gypsum wallboard.
- Building paper.
- 3/16 asbestos shingles or cement asbestos board or metal siding.

In addition to the exterior face of the wall being protected by a line of sprinklers at the eave or parapet, the entire interior of the Bay store was sprinklered.

We have no indication whether the existing building and extension will be sprinklered by the Mackenzie Delta Construction. Unsprinklered buildings should be kept 20' distant from the Utilidor.

In our letter of February 23, 1967, we recommended that a 6" line from the hydrant location should be extended from the Utilidor to provide a wall hydrant on the outside of the building facing Mackenzie Road. Could you please advise if this line has been installed.

Yours truly,

R.G. Whatnough,
Fire Marshal.

*14/9/67
this from was
application
of Fire Marshal
via Division
KF*

RGW:lw

000335

C O P Y

Inuvik, N.W.T., Sept. 6, 1967

Mr. R.G. Whatmough,
Fire Marshall, N.W.T.,
Department of Public Works,
Sir Charles Tupper Building,
Ottawa, Ontario.

Dear Mr. Whatmough;

Extension - Mackenzie Delta Construction

I am enclosing a piling diagram for an addition to the present building owned by Mackenzie Delta Construction located on lots 23, 24, 25, Block 20.

The building extension would come within 12 feet of the utilidor. Mr. Wagner is willing to follow the construction pattern the Bay have on their present extension and sprinkle the outside of his building.

Since the commercial property adjacent to the utilidor is very valuable I would recommend that the extension be allowed provided fire proof construction is used on the side facing the utilidor and a dry pipe sprinkler system is installed on the side facing the utilidor and also Peffers Restaurant.

The piles will have to be driven in the next few weeks. Construction would not take place till next spring.

Yours truly,

(Signed)
L. Adrian,
Territorial Fire Inspector.

SENT
JUL 20 A.M.

17
afmly

MR. GRAHAM ROWLEY,
SECRETARY,
ADVISORY COMMITTEE ON NORTHERN DEVELOPMENT

Ottawa, U.

MTJ

1009-3-16
19 July, 1967

Town Planning - Mackenzie Delta

I refer to your memorandum of July 12th, 1967 in which you were noting that Makale, Holloway & Associates Ltd., were engaged by this Department to prepare plans for the settlements of Tuktoyaktuk, Aklavik and Fort McPherson.

We have provided the consultants with all the information which we have received through the Regional Project being carried out by Aasen & Wright at Waterloo University. We have also made arrangements with Mr. Aasen and Mr. Wright through the University to have Mr. Makale visit them on his next trip to this area and discuss town planning for the Inuvik region.

I wish to assure you that wherever any information is available on any settlements in the Northwest Territories we attempt to provide complete information to our town planning consultants, as we want them to be able to use all the information which is available.

[Faint, illegible handwritten notes or scribbles]

K. W. Stairs/bj/D

Director.

[Handwritten signature]

Deputy Minister of
Indian Affairs and
Northern Development

Sous-ministre des
Affaires indiennes et
du Nord canadien

TO: Mr. Bolger

Date 12/7/67

A:

- Approve / Approuver
- Signature
- Comment / Commentaire
- Action / Donner suite
- Direct Reply / Répondre directement
- Copy for this office / Copie pour ce bureau
- Preparation of reply by / Réponse d'ici le

- May we discuss / Discussion avec nous
- As requested / Selon indications
- Note / Noter
- Note and return / Noter et retourner
- Note and forward to / Noter et faire suivre à
- Information

.....

G.W.R.

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 OTTAWA
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Canada

Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

Mr. Stavis
for Mr. Rowley
July 12, 1967

Ottawa,
date July 12, 1967.
our file/notre dossier
your file/votre dossier

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FILE	1004-3-16
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C.M. BOLGER, DIRECTOR,
NORTHERN ADMINISTRATION BRANCH

Town Planning - Mackenzie Delta

I note that Makale, Holloway & Associates Ltd. have been engaged by the department to prepare town plans for the settlements of Tuktoyaktuk, Aklavik, and Fort McPherson.

As you are aware, the Northern Co-ordination and Research Centre has done a good deal of research work in that area, and the Mackenzie Delta Research Project has produced a considerable volume of data and analysis. This includes the work of C. Aasen and W. Wright, which is specifically in planning, as well as the work of P.F. Cooper in technology, and J. Woolforth in economic geography. Provisional reports on some of this research have been circulated but reports on all research done to date have not as yet been published in final form. The scientists concerned are both knowledgeable and very interested in developments in the Delta, and I am certain they would be pleased to help in whatever way they could. It would seem unfortunate to me if Makale, Holloway & Associates Ltd. do not take advantage of work that has already been done, or if the department were to pay for gathering information which we have already secured.

G.W. Rowley,
Secretary,
Advisory Committee on
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Director





Mackenzie Delta Research Project

The Mackenzie Delta— Its Economic Base and Development

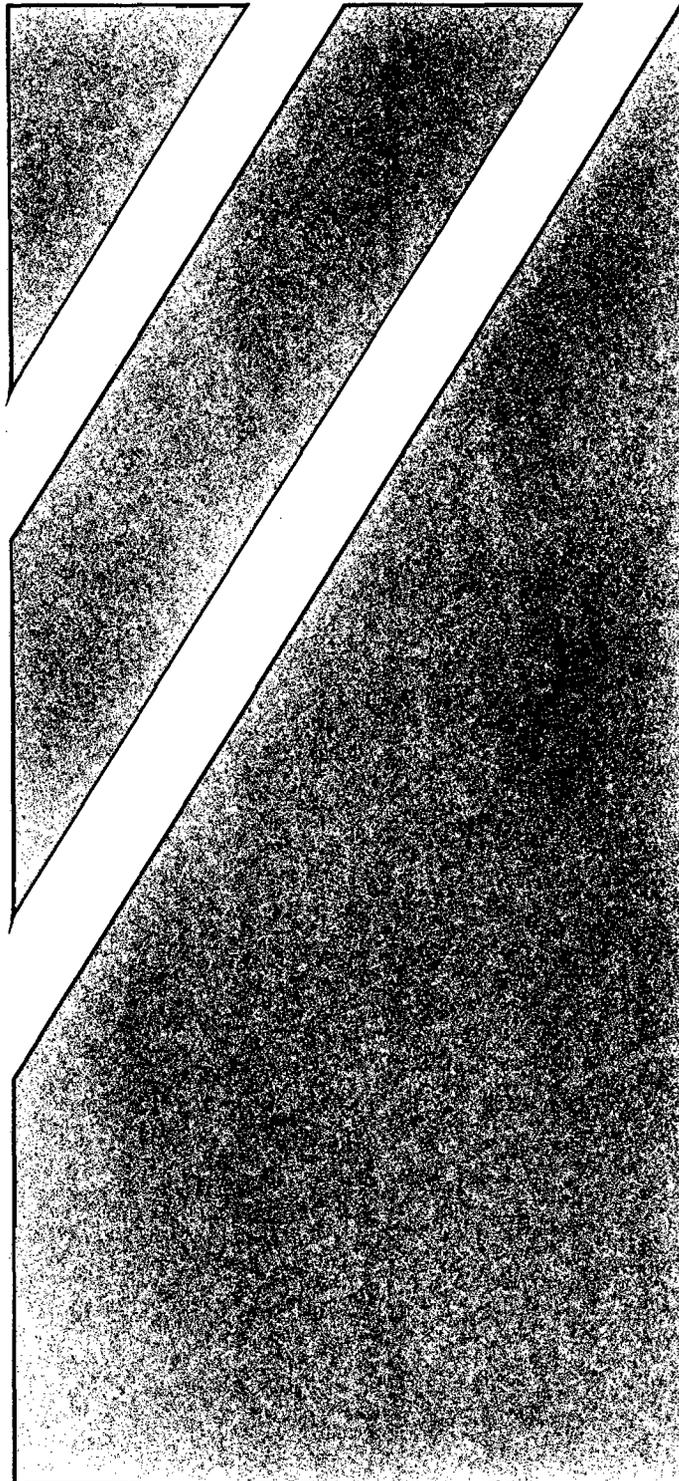
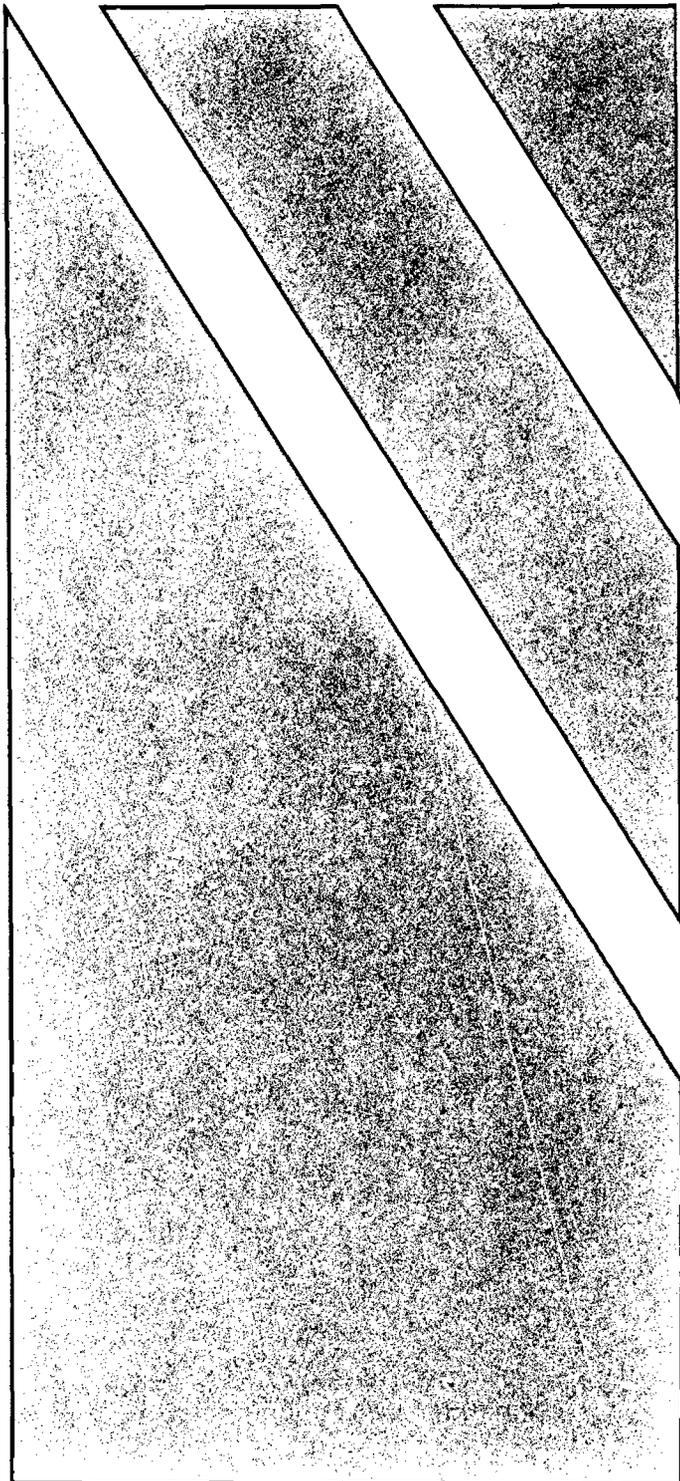
A preliminary study

By John R. Wolforth

MDRP 1

Northern Co-ordination and Research Centre

Department of Indian Affairs and Northern Development, Ottawa



THE MACKENZIE DELTA - ITS ECONOMIC BASE AND DEVELOPMENT

A PRELIMINARY STUDY

by

John Wolforth

This report is based on research carried out while the author was employed by the Northern Co-ordination and Research Centre. It is reproduced here as a contribution to our knowledge of the North. The opinions expressed however are those of the author and not necessarily those of the Department.

Requests for copies of this report should be addressed to Chief,
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FOREWORD

The Mackenzie Delta Research Project is an attempt to describe and analyse the social and economic factors related to development in the Mackenzie Delta. Particular emphasis is being directed toward the participation of the native people of the area, and the extent to which they are making effective adjustments to changes brought about by government and commercial expansion in the North.

The individual studies within the project and the conclusions arising from them will be published in a series of reports. This study, MDRP 1, by John Wolforth, was undertaken to provide background data and analysis necessary for a general understanding of the economic realities of life in the Mackenzie Delta. Its first purpose was to provide other researchers on the project with a basic guide or "outline map" of the economic geography of the area. No other suitable analysis was then available. It contains much of interest to people not directly connected with the Project, and is therefore being produced for general distribution.

A. J. Kerr,
Co-ordinator,
Mackenzie Delta Research Project.

PREFACE

This study is based on field work carried out in the Mackenzie Delta in July and August, 1965. The author spent some time in each settlement and also made brief excursions to Herschel Island and the Richardson Mountains.

Since the time available for gathering data was limited, the author restricted his enquiry to areas which he felt best reflected the total regional economy. Data on the wage and employment structure was gained by interviewing each employer, to whom the author expresses his sincere gratitude.

Thanks are also due to the game wardens, particularly Mr. F. Bailey, for making available the Fur Traders' Record Books and other sources for analysis; and to Mr. S. Johansson for providing data on the Canadian Reindeer Herd.

Information on the region's fisheries was obtained from Mr. W. Smith of the Canadian Fisheries Board, Mr. W. Menzie of Menzie Fisheries Co., and Mr. W. Hill of the Department of Indian Affairs and Northern Development. Mr. Hill also provided much useful information on the region's forestry programme, as did Mr. A. McLeod. The analysis of freight shipments into the region was only possible with the co-operation of Mr. T. Ross of

- iv -

Pacific Western Airlines, and Mr. D. Robinson of Northern Transportation Co. Ltd. The area administrators or acting area administrators, and the regional administrator Mr. T. Butters, are also to be thanked for their freely given assistance.

While gratefully acknowledging the help of all of the above, the author of course assumes sole responsibility for his interpretation of the data which they made available to him.

The author did not concern himself with the domestic economy of the region, since this was to be the subject of a colleague's research. However, he would be remiss in not thanking all the local people, too numerous to mention by name, who provided valuable insights into those sectors of the region's life which are only peripherally linked to the money economy.

Finally, the author would like to express his appreciation for the assistance afforded by Mr. R. Hill of the Inuvik Research Laboratory, and for the companionship and helpful comments afforded by his co-workers, Mr. D. Smith, Dr. P. Cooper, Miss Jose Mailhot and the late Miss Constance Roux.

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INTRODUCTION: THE HISTORICAL BACKGROUND

With a total population of some 3500, the Mackenzie Delta contains about fourteen percent of the people of the Northwest Territories. It is the largest of the two areas in the Canadian Northland where Eskimo and Indian cultures have impinged upon one another for several generations. In addition, it is the most easily accessible part of the Arctic from the south. It is served by regularly scheduled flights from Edmonton, as well as by barges travelling the Mackenzie River during the summer months. As a consequence, on an already complex cultural situation induced by long-standing Indian-Eskimo contact, have been superimposed the processes of acculturation associated with frequent and recurrent White activity in the area. These processes have been accelerated considerably within the last decade.

White contact has taken place in three phases: the whaling economy, the trapping economy, and lately, an economy characterized by an increasing concentration of population in settlements. At the turn of the century, the Beaufort Sea was an area favoured by whalers of many nationalities. This section of the Arctic Ocean abounded with Beluga and Bowhead whales, the latter especially highly valued as a source of baleen. By 1900, summer whaling camps were common

- 2 -

from Point Barrow to Cape Dalhousie and beyond, but the economic conditions which favoured the interest of whalers in the area were short-lived. Whale-bone was replaced by other materials, and the end of the Victorian era brought about changes in fashion which also reduced its potential market.

By the time of Stefansson's second visit to the Arctic, only a small number of whalers was encountered, although only a few years previously, Herschel Island in particular had been a burgeoning summer port filled with schooners. (Stefansson, 1941). Today, it is a bleak and lonely spot whose graves alone give mute evidence of its more exciting past.

The demographic as well as the social changes brought about by the presence of whalers was intense. In the Delta area, for the first time the Eskimo came into contact with White technology and jurisprudence as North-West Mounted Police posts were set up on Herschel Island at the turn of the century to police the activities, not only of the whalers, but of the indigenous population. The introduction of the rifle produced profound changes in the balanced ecology of the Eskimo way of life. The coastal herds of caribou were seriously depleted, as new hunting methods were tried and found successful. In addition, contact with the white man induced new needs and provided the means of achieving them. Many Eskimos at this time became very wealthy and amassed goods for which their fathers would

have found little use: but apart from the phonograph, the mechanical washing machine and similar devices, considerable investment took place in equipment with which to make a living. For example, almost all of the schooners still in use in the Mackenzie Delta today date from this period. As their useful life ends, they are to be seen as grounded hulks on the shores of the Beaufort Sea and along the Delta channels.

The whaling economy had been based on a resource for which the demand was at best transitory. This pattern was to be repeated in later decades with the fur economy. Massive influxes of capital in each case were not sufficient to provide a sound infrastructure for future development, since they were directed towards the exploitation of an ephemeral resource.

As commercial whaling declined on the coast, fur-trading posts reached northwards into the Delta. A post had been established at Fort McPherson as early as 1840, (Hench 1961: 86-103), and in the first decades of the present century others were established at Pokiak Point, opposite the present settlement of Aklavik (1912) and later at Herschel Island, Baillie Island, and Kittigazuit, (Innis 1956: 352).

Just as the coming of the whalers produced changes in Delta society, so also did the establishment of trading posts. Indeed, the changes wrought by the trading posts proved to be more permanent.

The attraction of the trading posts may be illustrated by the case of Fort McPherson. Until 1860, this was entirely an Indian settlement, closely guarded, in fact, against occasional raids by Eskimos from the north. By 1871, the summer population was evenly divided between Indians and Eskimos (Hench 1961) as the latter moved in to trade their furs at the post. As posts were established further north, the Eskimo summer population once more declined until Fort McPherson today is once more an entirely Indian settlement.

The trading post formed the first foci for permanent settlement, although in the initial stages their locations shifted somewhat. Even the most important trading post on Pokiak Point was moved across the Aklavik Channel to the present site of Aklavik in 1924.

Until very recently, a system of small trading posts has served a mosaic of hinterlands, each relatively limited in extent.

Several pertinent generalizations may be made about these trading posts. Almost without exception, they were founded by white trappers and were operated in conjunction with normal trapping activities. Their locations, although transitory in themselves, seem to form a spatial system in which each post had its own distinct trading hinterland. Finally, none formed a basis for permanent settlement.

This last consideration would seem to indicate that trading posts per se are not the root cause of population concentration.

Although the presence of trading posts created new needs, these could easily be satisfied by visiting the post infrequently, as is the case with many people at the present time. It is thought to be more likely that institutions fulfilling more frequently recurring needs were the major causes of population concentration. Such institutions would include the church, the schools, and latterly, the nursing station or hospital. It is significant that in Aklavik, the settlement grew up, not around the trading post established in 1912, but around the Anglican Mission established in 1919. It was the trading post which eventually was forced to relocate in order to provide retail services to the growing settlement about the Anglican mission.

Insufficient data is available to document the settlement-forming elements with any accuracy. However, a brief review of the early stages of each settlement indicates that the establishment of a trading post was a necessary although not a sufficient cause.

A trading post was established on the Peel River in 1840 and received the name Fort McPherson in 1848. Four years later, a group of Indians moved from their previous settlement on the Peel River opposite Stoney Creek, to Fort McPherson, (Hénoch, 1961). Their reasons for doing so were apparently not solely to be close to the post. Anglican and Roman Catholic missionaries came to the settlement at the same time, but in 1895 the Roman Catholic missionary moved with his converts to establish the settlement of Arctic Red River, (ibid).

A trading post was established by the Hudson's Bay Company at Pokiak Point in 1912, but there is no evidence that a settlement of any size developed about it. Some buildings still standing on this site may possibly date from this period. The major settlement developed instead around the Anglican mission and hospital at the present site of Aklavik.

Although a trading post existed opposite the present location of Reindeer Station, no settlement existed here until the Reindeer Depot was moved here from Kittigazuit in the late 1930's.

Thus in each case the establishment of a trading post per se did not lead to the concentration of population, although other institutions did indeed locate close to the trading post. It is difficult then to distinguish the demographic changes induced by the trading posts themselves from those brought about by other institutions which entered the area more or less concurrently and occupied similar locations.

The technological and social changes brought about by the introduction of the fur trade are easier to isolate. As suggested by Black (1961: 62-85) high fur prices in the 1920's did a great deal to stimulate interest in trapping for furs. White trappers moved into the area, bringing with them methods which were soon adopted by the native trapper, and steel traps and the .22 calibre rifle profoundly affected the ecology of the area.

RESOURCE-BASED ACTIVITIES

The natural resources of the Mackenzie Delta are scant. The remarkably persistent view that the North is a "treasure house" of resources has little foundation in the Delta. Even where natural resources do exist, their exploitation is hindered by climatic conditions, and above all by the short navigation season. There are two possible fields for development in the region--metals in the Richardson Mountains, and oil and natural gas in the lower Delta and the Peel Plateau. Mineral prospecting has been engaged in for some time, but with unencouraging results. Although a great deal of activity is under way in oil and natural gas explorations, it is not certain that large strikes would inevitably result in a burgeoning Mackenzie Delta economy. There is however, considerable room for research into the potential economic impact of oil and natural gas exploitation.

Consideration in this report will be limited to natural resources which are being exploited at the present time, or have possibilities for exploitation in the immediate future.

Trapping Today

Trapping was once the economic mainstay of the region. In the 1920's the price of a muskrat pelt reached \$1.30 (Black 1961) and white

trappers moved into the area in fairly substantial numbers. After a temporary drop in prices in the Depression, a further rise in prices was experienced, reaching as high as \$3.00 to \$3.50 for prime extra large muskrat pelts during the 1940's. Probably the region was as prosperous at this time as at any other in its recent history. This prosperity was, however, to be short-lived.

Muskrat, the main fur taken from the Delta, are taken in two ways. The best quality furs are from muskrat trapped during the winter months, but by far the greater quantity derive from muskrat shot in the few weeks following breakup. At the time when fur prices were high, trappers from outside the region were free to shoot muskrat anywhere in the Delta. It was felt at the time that this situation posed a serious risk to the muskrat population, as well as to the economic well-being of the Delta people.

Consequently, in 1948-49, the Delta was blocked off into Registered Trapping Areas, each of which was to be exclusively occupied by one trapper and his family. This system proved successful for a time, but within the last few years most Registered Trapping Areas have been relinquished. Today only a handful of Delta people still maintain their rights to Registered Trapping Areas, although many trappers do in fact still trap the areas previously registered in their names.

The failure of the system may be ascribed to a number of factors.

1. Although the size of the Registered Trapping Areas was sufficient when fur prices were high, as fur prices dropped most Registered Trapping Areas were found to be too small to provide an adequate income.
2. The boundaries of the Registered Trapping Areas were not always drawn to include lakes suitable for trapping. Local environmental changes which have taken place as, for example, lakes have drained or been silted up, were not accompanied by adjustments in the Registered Trapping Area boundaries.
3. Finally, many trappers abandoned their Areas to seek employment in the construction of Inuvik in the late 1950's.

A decade ago trappers were widely distributed over the Delta during the winter months since most of the Registered Trapping Areas were occupied. The southern two-thirds of the Delta in particular was trapped very intensively. The northern part of the Delta is poorer in muskrat than the south due to the greater fluctuation of water levels in the summer as on-shore winds cause the water to back up and flood dens (Stevens 1953). Even here however many trappers were able to make an adequate living. Registered Trapping Areas provided the assurance that conservation measures would bring benefits to the trapper putting them into practice. At this time, for example, some efforts

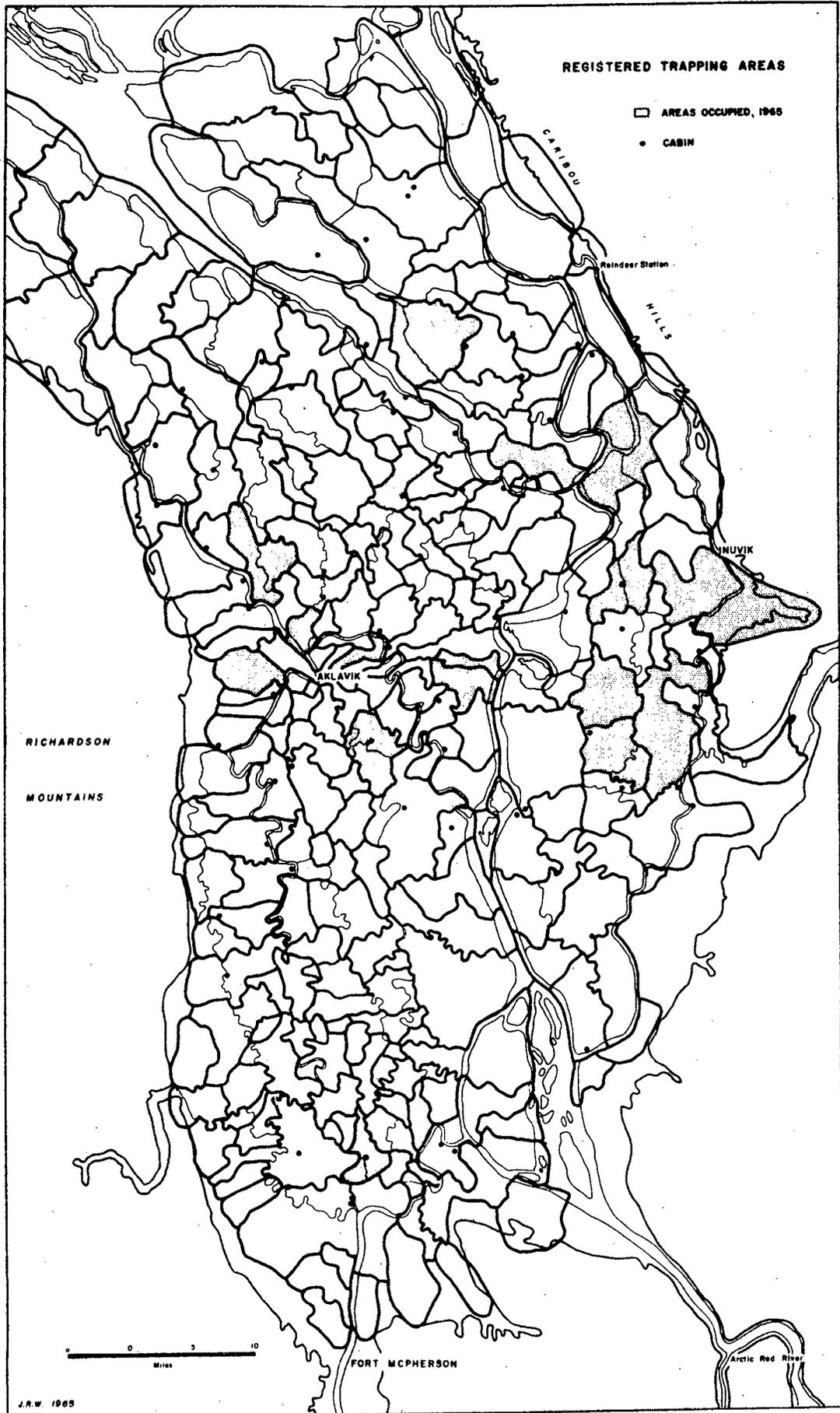


Fig. 1

were made to dam the small creeks draining the lakes into main channels and thus maintain water levels in the lakes. This practice has now been largely abandoned, but may be attempted again experimentally.¹ In addition to attempts at conservation, many trappers built permanent cabins on their Registered Trapping Areas (Fig. 1).

At the present time, most of the Registered Trapping Areas have been relinquished. Only a few trappers have maintained their areas (Fig. 1) and these are generally older people who value the security that occupation of a Registered Area affords. The majority of trappers would seem to prefer a greater freedom of choice in locating their winter camp.

If a comparison is made between the distribution of trappers a decade ago and the distribution today, several features become apparent.

1. There has been an absolute decline in the number of people maintaining winter camps in the Delta. There has not however been a decline in the numbers of persons trading furs into the Delta trading posts. In 1955, there were 386 trappers in the Delta, (Black 1961). In 1965, there were 391. The conclusion must be made that many of these people trap out of the settlements, or get all their furs from muskrat shot after breakup.
2. There has been a recession of the winter population in towards the settlements. The northern part of the Delta is in consequence

1. Frank Bailey, personal communication.

largely untrapped. While in the past camps were occupied all winter long, many trappers and their families now make frequent journeys to the settlements during the winter months. This would not of course be possible were they to maintain camps a long distance from the settlements.

3. The Delta now is divided into three discrete trapping hinterlands occupied by people from Aklavik, Inuvik, and Fort McPherson.
4. Within these hinterlands distinct nodes of concentration have appeared. The reasons for this tendency to concentration have not as yet been determined but are likely to be social rather than economic. Given the fact that most trappers operate along a 7 or 8 mile dayline, local concentration must surely result in over-trapping of the areas immediately adjoining the concentration node.

During the decade in which Registered Trapping Areas were maintained, considerable variation was experienced both in the annual muskrat take of each area and in the spatial distribution of the muskrat harvest. In the latter case, variation would seem to be due to the attributes and skills of individual trappers rather than to some spatially determined ecological variable.

Trapping today is for many people a source of "pocket money" in the slack winter months when less wage employment is available. Very few Delta people may be regarded as professional

- 13 -

trappers in the sense in which this term would be used even ten years ago. One-third of the trappers¹ of the Delta had incomes from trading furs of less than 100 dollars.² These people are maintaining a seasonal movement which seems to have little economic rationale at the present time. It is hardly surprising that for many the feeling of frustration is very evident and what little cash does derive from trapping is regarded as a "bonus" and spent accordingly.

Only fifteen trappers had incomes from trapping exceeding 2000 dollars. Of these, one alone had an income of almost \$10,000, but the income of no other trapper nearly approached this amount. These few people alone may be regarded as professional trappers at the present time, but it is significant that many did not trap the Delta at all but moved further afield to the Anderson or Firth rivers to trap the more lucrative marten. However, to set up for the winter in these more distant areas requires a cash outlay which few are able to make.

One of the more successful trappers who did trap the Delta outlined his annual sequence of activities as follows.

1. He moved to his winter camp in the northern part of the Delta in October. From October 1 until Christmas, he fished first in the still ice-free main channels and later by "jigging" under the ice.

1. The term "trapper" is here defined as a person trading furs into Delta trading posts.

2. Based on data for 1963-64, Trader's Fur Record Books.

2. In December and continuing into January, he trapped for mink along day-lines operated from his cabin. Trapping was slow until the end of February.

3. From March 1 until mid-June, he took most of his muskrat, first by trapping from day-lines and later by shooting from a canoe. The greater number were taken by this latter method.

Black (1961) has commented upon the greater proportion of furs taken from muskrat shot after breakup. This trend was perhaps more evident in 1964-65 than when observed by Black. By far the greater majority of muskrat pelts were traded in May and June, 1965. (Table 1). Significantly, the price differential between shot muskrats and trapped muskrats was slight. There is thus little economic encouragement for trapping as opposed to shooting. Shooting for muskrat after breakup may be carried on by any General Hunting Licence holder from the settlement with little capital outlay in special equipment.

It is not then surprising that the majority of trappers do a little trapping from the settlements, but derive the majority of their income from shooting muskrat after breakup.

Fort McPherson

In Fort McPherson, trappers went in the past to the Group Trapping Area in the Middle Peel valley for marten. However, in the last few years, the high costs of transportation have evidently deterred many from doing so. A few trappers will go up the Peel River by canoe in the Autumn, and return after the earlier breakup to shoot muskrat in the Delta.

INCOME FROM TRADING FURS

1963-1964

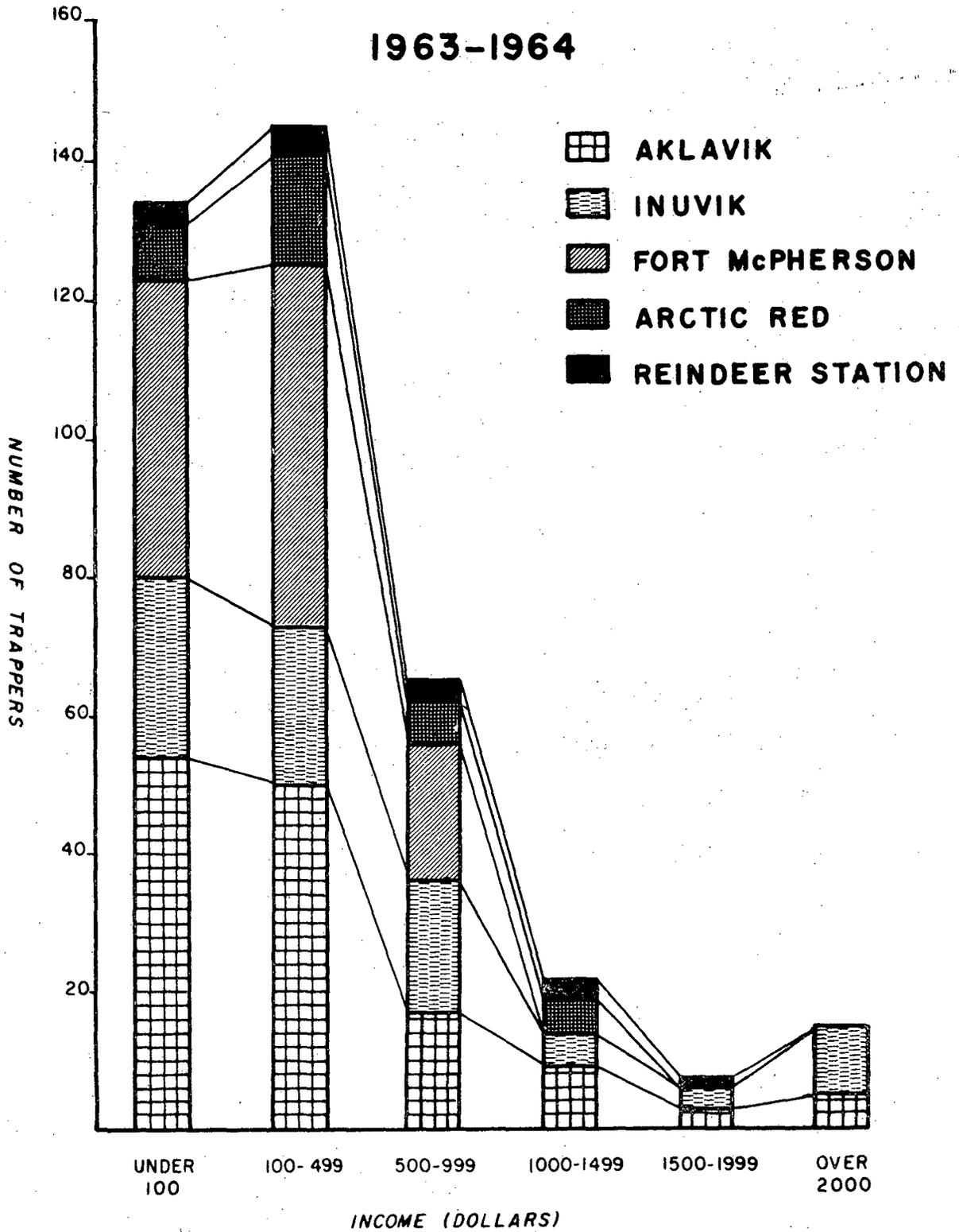


Fig. 2

A total of 226 marten, 59 beaver, and 24 mink were taken by Fort McPherson people in the middle Peel valley in the 1964-65 season.¹ This relatively small take is likely to discourage trapping in this area in the future.

Arctic Red River

No camps are maintained in the Delta proper by Arctic Red River people, although three families spend the winter at Indian Village on the mouth of the Peel River. Most trappers from this settlement move up the Arctic Red River or to Marten House. A few families from Arctic Red River (including the band chief) have taken up permanent residence at the mouth of the Tree River a few miles up the Mackenzie.

Aklavik-Inuvik

The majority of Aklavik trappers trap the Delta, although four were on Herschel Island in the 1964-65 season. The greater proportion however, operate trap lines from the settlement itself. More trappers move further afield from Inuvik in the winter than from other settlements. During the 1964-65 season, three were on Herschel Island, four on Travailant Lake, and five on the Anderson river.

¹ Monthly records of Game Ordinance Licenses, RCMP, Ft. McPherson.

Table 1--Muskrat Furs Traded Into Delta Settlements, 1964-1965

	Aklavik	Inuvik	McPherson	Others	Total	Avg. Price
July		482			482	.56
August		181			181	1.58
September		12			12	.90
October						
November		11	13		24	.78
December			9		9	.50
January	71		46		117	.70
February	428	47	69	111	655	.88
March	3,101	1,809	1,978	909	7,797	.79
April	3,122	5,626	2,791	893	12,432	1.15
May	3,599	1,538	3,035	335	8,507	1.18
June	16,613	10,681	12,285	2,964	42,543	.99

Source: Trader's Fur Record Books.

Reindeer Herding¹

The Mackenzie Reindeer Grazing Reserve is an area of some 17,900 square miles extending from the Mackenzie Delta eastward to the Anderson River. Much of this area is underwater, especially in the north where lakes cover from 30 to 50 percent (Mackay 1961: 98). The northern and eastern sections of the reserve are within the Arctic tundra and the southern and western sections are covered with a low spruce forest.

Reindeer herding was introduced into this area in 1935, when a herd of 2370 head was driven overland from Alaska.

1

The account of Reindeer Herding is based largely on conversations with Mr. Sven Johansson, Manager, Canadian Reindeer Project.

The first years of herding reindeer were very promising and the herd more than trebled in numbers between 1935 and 1942. This rapid growth may be ascribed to the fact that the range had been unused. After 1942, some problems were experienced.

1. Two herds had been set up under the control of natives, but these were returned to the Government herd after the accidental death of both owner-managers.
2. Some Eskimos left reindeer herding to return to trapping, a fact which may be ascribed to economic as well as cultural determinants.
3. Unlike the Lapps, Eskimos had not been used to animal husbandry. While for the Lapp, living reindeer have intrinsic value as a measure of wealth, for the Eskimo this value resides only in the cash income which the reindeer carcass represents.
4. Unfortunately, during the 1940's this income was always less than could be expected by a capable trapper. Fur prices were higher than at any other time (Black 1961), while the wages paid to reindeer herders were low, and the work boring and arduous.

It is little wonder that small interest was stimulated in reindeer herding during this period.

After 1947, a summer school programme was set up, and attempts made to re-establish native herds. Once again, these attempts met with little success. Each of the four native herds set up between 1949 and 1954 diminished in numbers in a very short time, and was eventually relinquished.

The practice of close herding had been borrowed from the Lapps, but was evidently not suited to Canadian conditions. The herds were much larger than those found in Scandinavia, and when confined to a small area were unable to make maximum use of available grazing. These herding techniques were favoured because they were considered to minimize losses due to straying. However, losses due to malnutrition and resulting "soft-bone sickness" were undoubtedly great.

Mr. Sven Johansson, the present manager of the Reindeer project, considers the losses by strays are likely to be slight, although small groups of animals may leave the main herd for a short time. From detailed observations, it seems unlikely that these small groups leave the Reserve, although it is possible that some mixing with caribou takes place east of the Anderson River.

Although adult caribou and reindeer are similar in appearance, reindeer fawns are born early in the spring and are dark in colour, while caribou fawns are born later and have a reddish-brown colouring.

Little variation in colouring has been observed either in the young of reindeer or of caribou in adjacent areas, as would be expected had inter-breeding occurred. Conclusive evidence is not available on the problem of strays, but it seems likely that the losses from this source are not high.

Since the inception of reindeer herding, large numbers of animals have been unaccounted for (Table 2). Heavy losses are common

Table 2--Mackenzie Reindeer Herd: Size and Numbers Unaccounted For, 1939-1964

Year	Herd Size	Unaccounted	Percent
1939	5342	588	11
1940	6635	219	3
1941	8157	70	1
1942	9374	329	3
1943	9231	1180	12
1944	8609	1224	14
1945	no record		
1946	6568	2225	34
1947	6343	1271	20
1948	6679	708	11
1949	7219	780	11
1950	7560	1111	14
1951	8522	550	6
1952	7697	1763	23
1953	7814	736	9
1954	7844	715	9
1955	6595	1206	18
1956	6075	872	14
1957	5941	558	9
1958	5571	1239	22
1959	4138	265	6
1960	4926	140	2
1961	5012	951	19
1962	5613	775	13
	(7736) ^a	(1272) ^a	16
1963	5073	1036	20
1964	5942	466	8

Source: Data provided by Mr. Sven Johansson, Manager of Canadian Reindeer Project. Those from 1939 through 1958 include all herds, from 1959 through 1964 include government herds only, annual roundup figures. Figures in brackets from 1963 include government herd and Native Herd Number 4.

Reindeer Range

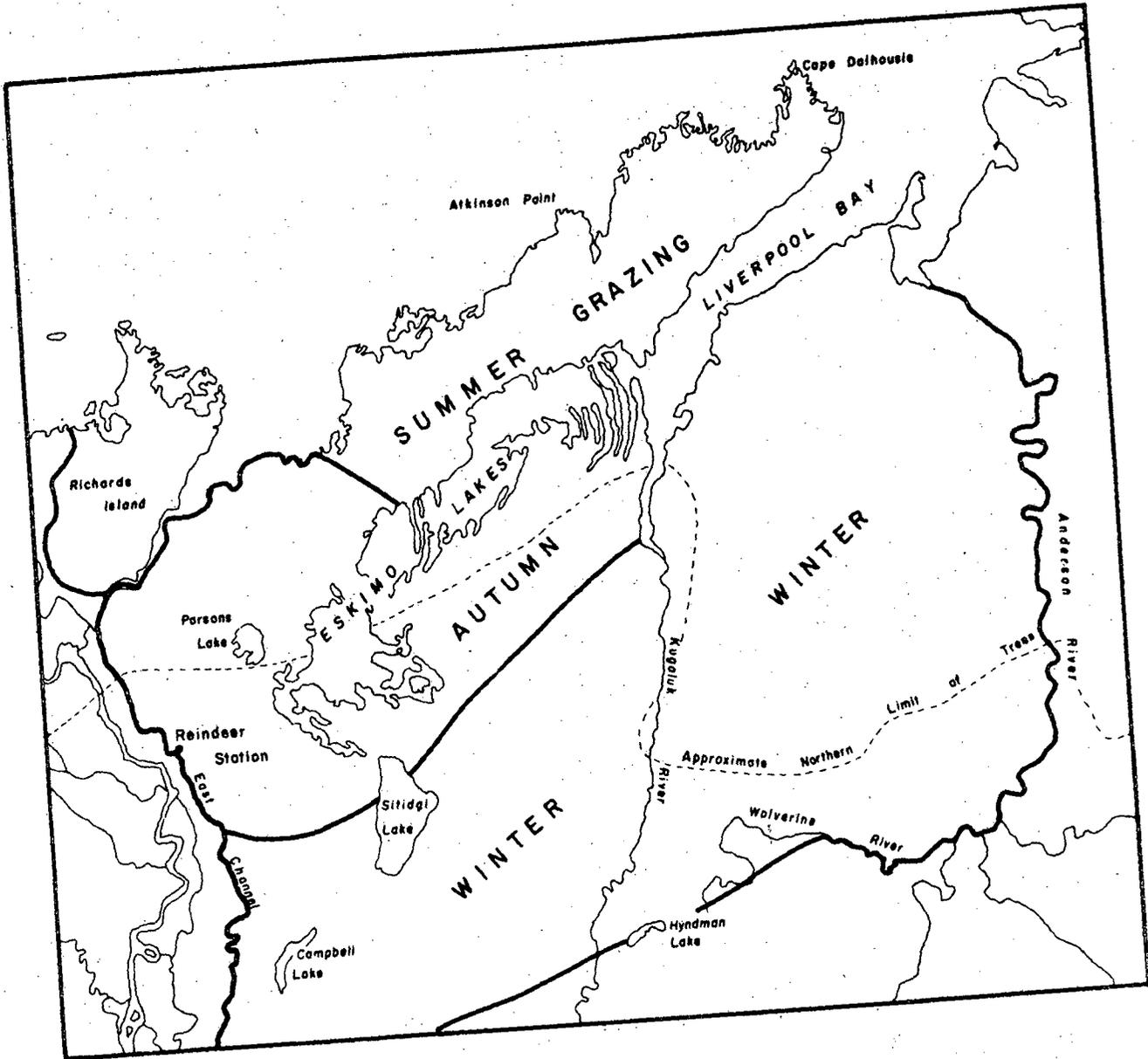


Fig. 3

in other countries, however, and previous experience on the Mackenzie Reserve indicates that close herding is not the solution to this problem.

Since March, 1963, reindeer herding has been carried on under contract to the Department of Northern Affairs and National Resources, and open herding has been substituted. Under this system, the reindeer are allowed to roam freely over an extensive area, the boundaries of which are patrolled to prevent straying. Aerial reconnaissance is used extensively to check on movements of the herd. This system, although only used for a short time carries several advantages.

1. Less labour is required to control the limits of an extensive area than was required to keep the reindeer in close herds.
2. More efficient use is made of the Reserve since the animals are free to select the best grazing and less likely to destroy potential food by trampling.
3. The natural seasonal movements of the herd may be exploited with greater ease.

In general, the herd movements are expected to follow a sequence from the northern part of the Reserve in the summer to the southern part in the winter (Fig. 3). Limits upon the potential size of the reindeer herd are likely to be set by the summer rather than the winter range. The summer range has been utilized in the past to such an extent that the potential grazing has been much depleted. With the extremely slow growth rate associated with the Arctic barrens,

replenishment will take some years of less intensive use. In addition, the total grazing potential is substantially reduced by the large percentage of the area in lakes. In August, high temperatures on the summer range have deleterious effects on the herd. In contrast, the winter range has been little used to date, and grazing conditions are very good although some of the winter range was destroyed by fire a decade ago. Research is presently under way by the Canadian Wildlife Service to determine the maximum number of reindeer the Reserve may be expected to support. With evidence presently available, 25,000 to 30,000 head does not seem an unreasonable estimate. A program drawn up by Mr. Sven Johansson envisages a herd of 30,000 by 1969. A herd of this size would probably require additional summer grazing east of the Anderson River, which might well have effect on the trapping in this area. At present, laws forbidding the taking of reindeer or caribou in the Reserve deprive the few trappers in this area of a potential source of meat.

It might be advantageous in this area to permit hunting of rangifers in the winter, especially if it were to become necessary to extend the Reindeer Reserve eastwards.

The future success of reindeer grazing in the Mackenzie area is more likely to be a function of economic than of physical determinants.

At present the majority of reindeer meat is consumed

locally, although small amounts are shipped elsewhere in the territory. The use of a "Canada Approved" slaughter house would be a necessary condition to marketing outside the North West Territories. At present, all production is disposed of, and there is at most times a local shortage of reindeer meat (Table 3).

Table 3--Sales of Reindeer Meat, March, 1964-March, 1965

Reindeer carcasses		74,015 lbs.
Fawn carcasses		11,129 lbs.
Organs		2,052 lbs.
Legs		1,309 lbs.
Tongues		544 lbs.
Heads		559 lbs.
	Other Sales	
Skins		800 lbs.
Antlers		638 lbs.
Live fawns		20 lbs.
Herders' meat issue		7,320 lbs.

Source: Sven Johansson, Manager, Canadian Reindeer Project.

*In 1966, trappers were able to take caribou between the Kugaluk and Anderson rivers if they obtained a permit to do so.

The present production of meat is about 1200 pounds per 100 reindeer in the herd which does not compare favourably with operations in other countries. However, in the opinion of Mr. Sven Johansson, this could be increased to 5000 pounds per 100 reindeer. With a herd of 30,000 head this would require finding the market for

1,500,000 lbs. of reindeer meat each year. Sales of this amount, it must be mentioned, are based upon optimistic estimates both of the potential herd size and production. Economic management of the herd is not necessarily dependent on selling this quantity of reindeer meat. However, even on the basis of more conservative estimates, considerable expansion of the market for meat would be required if the Reindeer Project is to become economically viable.

Table 4--Reindeer Herd Reduction, 1964-65

	Slaughter	Live Export	Sickness	Predators	Camp Meat
April	-	-	2	3	2
May	-	-	2	-	2
June	41	-	-	-	-
July	-	20	4	-	4
August	-	-	2	7	7
September	-	-	-	6	12
October	-	-	-	-	-
November	5	-	-	11	12
December	4	-	7	-	17
January	442	-	4	6	2
February	78	-	2	5	3
March	21	-	3	12	3
Year	691	20	26	50	64

Source: Sven Johansson, Manager, Canadian Reindeer Project.

The continued operation of the Reindeer Project is to be desired. Its present impact on the regional economy is almost entirely beneficial. The inconvenience caused to trappers not being able to

take rangifers on the Reserve is small when weighed against the fact that the Reindeer Project provides a secure economic support for the community at Reindeer Station.

Reindeer Station

The community at Reindeer Station was established a few years after reindeer herding was introduced to the Western Canadian Arctic. It succeeded Kittigazuit as the centre of operations for Reindeer herding and at the time of its establishment was the only settlement on the Eastern side of the Delta. In the first year of operation, the herders and their families followed the herd, and lived the year round on the range, but more recently the families have remained in Reindeer Station, while only the herders are working on the Reserve.

Whether Reindeer Station remains a viable community following the establishment of Inuvik is an open question. An argument could be made for the abandonment of Reindeer Station, and the relocation of the herders and their families at Inuvik. The operating expenses of the settlement are a not inconsiderable portion of the project's expenses and the major market and shipping point for reindeer meat is in Inuvik. However, the present location of Reindeer Station is more accessible to the projected summer, autumn, and winter ranges than Inuvik would be.

In addition, Reindeer Station acts as a service centre for the north-eastern portion of the Delta. The capital investment

in Reindeer Station's present location may represent the most potent economic argument against its relocation.

Quite apart from purely economic considerations are the desirable social relationships which have evolved in Reindeer Station, the dislocation of which could have unfortunate consequences. Reindeer Station appears to have a greater degree of social health than other Delta settlements. The worker in the Reindeer Project makes a sufficiently high wage to maintain a satisfactory standard of living. Either directly or indirectly the settlement supports a dozen households with a combined population of about 60 persons. The social and economic health of the community is reflected in the fact that social welfare payments are minimal. Stability in the labour force of the Reindeer Herding Project is encouraged by the fact that residence in the settlement depends on job tenure. Were the operation transferred to Inuvik it is doubtful whether this situation could be maintained.

Apart from the permanent employees at Reindeer Station, casual labour is employed at various times of the year during round-ups. Wages for such casual employment represent a not inconsiderable benefit to Delta families.

Forestry

The Reindeer Project represents an attempt by government to provide employment based on the exploitation of the only semi-domesticated animal which may thrive in this area. Although the natural

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vegetative cover offers little encouragement for commercial exploitation, forestry has been treated recently in rather the same way.

The forest resources of the Delta have little potential use other than that of fulfilling some local needs for poor quality lumber. Although the timber up the Peel and Arctic Red River is of better quality. The forest cover in the Delta is generally stunted, the two principal species of potential economic value, the white spruce (Picea glauca) and, to a lesser extent, black spruce (Picea mariana) seldom exceeding fifty feet in height. As would be expected so close to its northern limits the maturation period is extremely slow, and reforestation, even if it were technically possible, would need to be based on a renewal period greatly in excess of that common in the south. A further consequence of slow maturation is the extremely close grained nature of the timber, fifty rings to the inch being by no means unusual. In addition, since branching occurs closer to the ground than in southern forests the lumber produced from Delta trees is often knotty. These two factors alone will prevent it competing successfully with sawn lumber imported from the south.

Distribution of Forest Growth

Within the Delta itself, the spruce forest appears to be extensive when viewed from the channels. Appearances are however deceptive, since the spruce seldom extends far from the levées, and

conceals a more generally widespread cover of low willow and alder, neither of which is of economic value.

The amount of land in spruce increases southward from ten percent in the vicinity of Aklavik to forty percent on the southern edge of the Delta (Mackay 1963: 167).

The distribution of spruce is linked to conditions of flooding and fluctuation in the depth of permafrost. Thus the northern limit of spruce, according to Mackay (ibid, 172) corresponds to a levee height of about ten feet above sea level. On levees below this height, as of course in the low lying land behind the levees, flooding following break-up prevents the establishment of spruce.

Exploitation of Forest Resources

These limiting factors have certain corollaries for exploitation.

Since the spruce cover is most dense on the levées, trees may be removed with relative ease and with little or no expensive equipment. Dog teams have been found quite adequate for hauling small timber from the levée on to the frozen channels to await breakup. This method however does place a limit on the size of logs. More areally extensive exploitation of spruce would be limited, not only by the lack of appropriate equipment, but by the linear nature of the spruce cover itself.

There is little possibility of a forestry programme in the

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area which would serve any purpose other than: (i) fulfilling some local need for lumber, especially for squared logs, pilings, rough boards for sidewalks, and similar uses, and (ii) providing employment in logging and saw-mill operations.

These purposes must not be depreciated, however. Certainly, in the southern part of the Delta, forestry operations are contributing to the regional economy at present, and may be expected to do so in the future.

Logging

Logging, as opposed to the gathering of driftwood for fuel, has been carried out on an ad hoc basis for many years.

The Department of Northern Affairs has actively encouraged Forestry more recently, initially under the auspices of Educational Division and Welfare Division. The original purposes for government entry into this field were two-fold: to provide employment, and to provide training. Thus, its economic operation was secondary to spreading the available funds through as many families as possible. In the winter of 1960-61, ninety-one men were employed in logging and earned a total of almost \$21,000. After 1963, the work was transferred to Industrial Division in the hope that it had now become economically viable. In contrast with the earlier operations, in the winter of 1964-65, sixty-four men were employed in logging and earned a total of about \$18,000. Thus,

although fewer men were employed, each earned more, and was able to regard logging as a more useful supplement to any other winter earnings. This tendency is likely to continue in future years.

Logging has been more significant as a source of employment for the southern Delta settlements, both under the jurisdiction of Educational Division and of Industrial Division.

Table 5--Numbers Employed in Logging in Delta Settlements

Settlement	1961-62	1962-63	1963-64	1964-65
Aklavik	22	24	n.a.	17
Inuvik	19	16	n.a.	=
Fort McPherson	44	57	n.a.	28
Arctic Red River	6	10	n.a.	9

Source: W. Hill, pers. comm. (n.a. = not available)

Here, because of the lack of other employment opportunities, the need for employment in logging is greatest. Many men in the Delta are quite familiar with logging practices, and represent a reservoir of elementary skills which should not be permitted to go untapped. However, the expansion of the logging programme would be dependent upon the expansion of sawmill facilities which in turn would depend upon the stimulation of the local market.

In addition to the logging project of the Department of Northern Affairs, some logging is stimulated by the house-building program of the Indian Affairs Branch in Fort McPherson, and by a limited number of contracts for piling.

Sawmilling

At present, about six sawmills are in existence in the area in various states of repair. Only two of these have been operating recently on any extensive scale, although one has been used downstream from Fort McPherson on the Peel River for cutting lumber used by the owner for building his own house. Apart from this one small exception, sawmilling is entirely a government preserve at the present time.

The Aklavik Sawmill

The Aklavik Sawmill is the largest operation, and is at present under the direction of Industrial Division.

The sawmill is located on the Pokiak Channel, across the Aklavik Channel from the main settlement. This site, which is close to the original location of the Pokiak Point Hudson's Bay Company post set up in 1912, has a major disadvantage at the present time. Separated as it is from the main settlement, it is reliant upon its own source of power. This is not a major inhibition at present, when the equipment in use consists of one sawmill and one planer, the latter only used intermittently. However, if the expansion of facilities were to take place, inaccessibility to the facilities of NCPC would present some limitations. In addition, the transportation of mill employees to work ties up canoes which could be used for other purposes.

However, the major asset to the mill's present location is that logs floated down from the Esau Channel may be boomed here

with greater facility than would be possible across the Aklavik Channel. It is significant that the same feature was appreciated by the local private sawmill, which had a similar location¹. Some account of the sequence of transportation methods in use will be appropriate at this point.

1. Timber is cut on the banks of the Esau Channel and the Peel River during the winter and hauled by dog team on to the ice. About fifteen Aklavik men were employed in the winter of 1964-65 on the Esau Channel and their earnings totalled \$6618.00. Thirty-two Fort McPherson men were employed on the Peel River and their earnings totalled \$6800.00.
2. At break-up, the logs are either hauled to the mill by canoe, or by the Northern Affairs vessel, Iqaluppik in booms, or allowed to float down with the current. Some difficulties have been experienced in the past due to booms breaking and considerable quantities of logs being lost.
3. The logs are stored in the Pokiak Channel, adjacent to the mill, until they are required for sawing.
4. Sawed lumber is loaded onto a small barge and taken on the Iqaluppik to its markets, which at present are found in Inuvik, Aklavik, and to a small extent at some oil camps in the coastal islands.

1. Roy Wright, Fort McPherson, personal communication.

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Since over one-half of the forest resources currently being exploited are within 21 miles of Aklavik, it would seem that a small portable mill would be able to function more economically than at the present fixed location without serious inconvenience to the labour force. This would reduce the cost of booming and transporting logs, which at present accounts for about 25 per cent of the total cost of the lumber f.o.b. millsite.

An alternative would be to locate the mill at the largest market (i.e., Inuvik), but if this were done, considerable problems would be experienced in transporting logs to this location from the present exploitation area. However, a portable mill would enable sawn lumber to be stockpiled in Inuvik rather than at its present rather inaccessible location, in order to facilitate marketing.

At present there appears to be a somewhat justifiable prejudice against locally produced lumber. It is true that it is unsuitable for many purposes, but a more accessible lumber yard would undoubtedly encourage its competitive position with regard to imported lumber.

The sawmill at present employs nine local men working a seven-day week during the summer months. All are largely unskilled, with the exception of the sawyer. The mill is under the supervision of a skilled operative from outside.

From an initial production in 1961 of some 86,000 board feet of rough lumber production has risen to 316,000 board feet

in 1964 plus 61,000 board feet of planed lumber. However, the fact that about 500,000 board feet are stockpiled at the mill suggests that sales have not been able to meet production.

Thus, an essential requirement of the continued operation of the sawmill is the expansion of local markets.

Fort McPherson Sawmill

A sawmill has been operated sporadically at Fort McPherson in connection with the house construction work of the Indian Affairs Branch. Although Fort McPherson is close to better stands of spruce, the settlement does not furnish the suitable site for a sawmill. The mill in operation in the summer of 1965 was located behind the settlement, logs being hauled by truck or tractor from the waterfront.

The operating procedures in Fort McPherson were quite different from those used in Aklavik. Logs were cut and transported to the mill by individuals interested in constructing their own houses. Thus, the operations here were carried out as a service provided by the Indian Affairs Branch, and not as a commercial enterprise.

Fishing

Although many fish are taken for domestic use from the Delta and adjacent parts of the Beaufort Sea, large scale fishing has not as yet been attempted commercially.

Estimates as to the quantity of fish available vary considerably. The amount of fish taken for domestic purposes is difficult to determine. Black estimated the total consumption by dogs as somewhat under one million pounds (Black 1959), and it seems likely that dogs account for the major portion of consumption. In the light of Ferguson's findings that each family uses 20 pounds of fish per day in the Tuktoyaktuk (Ferguson 1961), it does not seem unreasonable to suggest a total annual consumption of between 1,500,000 and 2,000,000 lbs. for the Delta and adjoining coastal areas. The following tentative estimates have been made by the Canadian Fisheries Board (Table 6).

Table 6--Fish Caught Annually for Domestic Use

Settlement	Catch
Inuvik	350,000 lbs.
Aklavik	500,000 lbs.
Ft. McPherson	555,000 lbs.
Reindeer Station	100,000 lbs.
Arctic Red River	110,000 lbs.
Tuktoyaktuk	600,000 lbs.

Source: Wes. Smith, pers. comm.

Fishing is undoubtedly an important subsistence activity for a large number of people in the Delta and small quantities of fish enter the local market commercially.

Commercial fishing will only be economically sound if;

1. It can be shown that the present catch may be substantially exceeded without risking depletion, and,
2. Access may be found to outside markets large enough to encourage favourable freight rates. Some attempts have been made recently by the Department of Northern Affairs and National Resources to encourage commercial fishing. These attempts as yet have met with little success. In the summer of 1964, 88,655 pounds of Whitefish were caught in the vicinity of Holmes Creek.

Whitefish Taken
 July 16-August 18, 1964

Good	42,450
Culls	<u>34,904</u>
Total	77,354
Weight	88,655 lbs.
(Rough Fish)	11,301 lbs.)

The products obtained for this summer's activities were whitefish fillets, frozen whole whitefish and fish meal concentrate.

Products Obtained from Whitefish Project, 1964^a

Fillets	2,200 lbs.
Frozen Whole Whitefish	26,460 lbs.
Fish meal concentrate	5,000 lbs.

^aW. Hill, pers. comm.

The operation was carried on in conjunction with whaling activities at Whitefish Station, and the fish were purchased from local

people in the vicinity. The cost of purchase formed the major part of both fillets and frozen whole fish, so that the cost of the finished product in both cases was sufficiently high to render competition with other sources of fish difficult. Much of the frozen whole fish remains unsold to the present time.

The fish meal concentrate, in addition, carried a price which would not appeal to local consumers, even although it was offered on the market at a considerable reduction. In order to be used as dog food, the concentrate had of course to be mixed with corn meal, the purchase of which added further to the cost. At present the fish reducing plant, which is mounted on a barge, is located at Reindeer Station where it is used for producing dog food from reindeer offal.

The Whitefish project supplied a total of eleven men with employment in the freezing, filleting and reducing operations for one month. In addition, it provided a source of cash for some families staying on the coast. Each of these two benefits was, however, obtained at high cost.

Commercial fishing, whether organized by government or by private fisheries, is likely to be beset by several problems.

The fishing season ends close to freeze-up. Thus ships fishing late into the season run the risk of being frozen in. In addition,

ships providing transportation to the South for fish products run similar risks, a factor which may be expected to increase transportation costs. If commercial fishing were to be attempted in Liverpool Bay, a road from Eskimo Lake to Tuktoyaktuk would reduce this risk, since the shipment point could be transferred to the latter location, where freeze-up is generally later.

3. Capital expenditure in processing equipment is likely to be high.

The approximate cost of a blast freezer and refrigerator mounted on a barge is of the order of \$150,000¹. Few private operators are likely to be ready to invest this amount of capital in what is at best an uncertain commercial enterprise.

4. Transportation costs are likely to remain sufficiently high to discourage the export from the area of any but the best quality fish. Arctic Char and Jumbo Whitefish would seem to offer the best opportunities for future development if for this reason alone.

1.

W. Menzies, Edmonton, personal communication.

THE ECONOMIES OF THE SETTLEMENTS

The exploitation of local natural resources contributes little to wage employment. The majority of wage earners, both white and native, are employed in what may be loosely classified as "service activities". The status attached to the wage-earner has resulted in a reversal of the traditional value system which is regretted by many local people. In general, the man who is self-employed and makes his living by exploiting natural resources and thereby contributing to the economic self-sufficiency of the region, receives less for his efforts in terms of prestige as well as income than the wage-earner. The fact that the latter appears to make little real contribution to the economic growth of the region is the result of much hard feeling among trappers in particular.

Employment in Inuvik

Wage employment is of course almost entirely confined to the settlements. Only very few wage-earners have jobs which carry them outside Inuvik, Aklavik, or Fort McPherson. The only major exceptions to this generalization are the reindeer herders of Reindeer Station who spend a large part of their time on the Reserve.

Of these settlements, Inuvik provides by far the greatest number of permanent jobs. It is significant, however, that

these are occupied predominantly by whites (Table 7). The role of Inuvik in northern development has often been distorted. Far from being a centre of change, where the native has access to a wide range of job opportunities, his role is often that of a bystander of the economic scene. The majority of jobs and especially the high paid jobs are occupied by whites from "outside".

Table 7--Employment in the Settlements by Ethnic Status

Settlement	White	Indian	Eskimo	Other ^a	Total
Inuvik	320	50	83	36	489
Aklavik	23	7	19	3	52
Fort McPherson	30	25	-	4	59
Arctic Red River	2	-	-	2	4

a. The term "other" is used in this report to designate those of mixed blood.

Inuvik of course is the centre of government activities, and thus of employment in government service. But in addition, the large and relatively affluent white population has enabled service activities with a high threshold¹ being able to survive. Thus, Inuvik has retail functions which would certainly not be present in a village of similar size outside. Inuvik is frequently pictured by the more discerning local people as a place where "people take

1.

"Threshold" is used in the urban geographical literature in the sense of "the minimum population required to support a given type of establishment".

in each others' washing". In a sense, this is true. Wage employment is almost entirely in the nonbasic¹ sector. The inputs provided by the basic sector of the economy, of which trapping is the major example, are very small. However, it must not be forgotten that many of the service functions of Inuvik serve not just the local population, but also people from other settlements and from the Delta staying "in town" temporarily, and the summer influx of visitors from outside. The money spent by these people represents a very real input into the area which, with the data presently available, it is not possible to document. The majority of these service functions are provided by private enterprise. Thus, although government jobs provide the major source of employment, the number of those in the private sector is by no means negligible.

Of the total number of jobs available 66.5 percent are in the government sector, excluding the RCMP and HMCS Inuvik service personnel (Table 8).

1. Basic" activities are those which bring money into a settlement through the services its inhabitants perform for a wider region. In contrast, "nonbasic" activities involve an exchange of money derived from basic activities through services rendered by one member of the community to another.

Table 8--Inuvik Employment, July, 1965

Government Departments	White	Indian	Eskimo	Other
Dept. of Northern Affairs				
Civil Servants	21	-	1	-
Permanent Employees	8	3	18	7
Casual Employees ^a	12	9	37	20
Teachers	49	-	-	-
Inuvik Research Laboratory	3	1	-	-
Dept. of Public Works	6	-	-	-
Dept. of Transport	23	1	-	-
Citizenship and Immigration	3	-	-	-
National Health and Welfare	75	11	12	1
Dept. of National Defence ^b	-	1	1	2
Total Government	200	26	69	30

Service Industries	White	Indian	Eskimo	Other
Barber Shop and Beauty Salon	2	-	-	-
Canadian Imperial Bank	4	-	-	-
Hudson's Bay Company	15	-	-	-
Imperial Oil	5	-	-	-
Inuvik Development Corp.	5	-	-	3
Mackenzie Hotel	12	2	1	-
F. L. Semmler	1	-	2	-
Tuk Traders	1	-	1	-
Government Laundry	2	3	2	1
Territorial Liquor Commission	1	-	1	-

^a Classificatory term.

^b Excluding service personnel.

Other Industries	White	Indian	Eskimo	Other
Douglas Trucking	2	-	1	-
Great Northern Airways	3	-	-	-

Norris Contracting	4	-	-	-
Northern Transportation	3	-	1	-
Pacific Western Airlines	7	-	-	-
NCPC	26	10	3	-
Radio Station CHAK	2	2	1	2
Reindeer Air Service	1	-	1	-
Wiederman Taxi	3	-	-	-
Gordon Campbell Construction	2	-	-	-
Hostels				
R.C. Hostel	13	4	2	-
Anglican Hostel	6	3	7	-
<hr/>				
Total Wage Employment	320	50	83	36 489

Not included in survey: Royal Canadian Mounted Police, service personnel attached to HMCS Inuvik, religious functionaries excluding nuns and priests serving in the hostels, workers in the Rehabilitation Centre.

A tradition of wage employment among the native population was initiated during the construction of the DEW line sites, and with the construction of Inuvik itself. Unfortunately, neither of these activities is self-sustaining. The not altogether unjustified opinion exists today that many jobs are created in order to absorb a labour force which, with the redundancy of DEW line sites and the completion of major construction in Inuvik, would be largely unemployed.

Wage Employment in Government Service

Among government employees, there are distinct differences in income according to ethnic status. Of all employers, however, government seems most sensitive to this problem. The fact remains that in spite of good intentions, native employees but rarely have skills which would fit them for responsible administrative

posts. Thus, the exclusion of natives from the higher wage brackets is de facto rather than de jure. The fact that native people perform well in a limited number of responsible positions indicates, if indication is indeed necessary, that this is the result of the lack of acquired rather than of innate characteristics.

In Inuvik, 90.3 percent of the (52) Eskimo men on the Department of Northern Affairs payroll, 72.7 percent of the (11) Indian men, and 86.3 percent of the (22) Metis men earned between \$300 and \$350 per month. In comparison, 81.3 percent of the (16) white men on the payroll earned more than this amount. In addition, salary earning civil servants are almost entirely white. Thus, even in the Department of Northern Affairs, although more natives are employed than whites, they generally occupy "prevailing rate" jobs (Table 9).

Table 9--Inuvik Employment, By Income and Ethnic Status, July, 1965

Department of Northern Affairs and National Resources

	Monthly Income ^a											
	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
Permanent Employees												
White	-	-	-	-	1	1	3	-	2	-	1	-
Eskimo	-	-	-	1	15	1	-	-	-	-	1	-
Indian	1	-	-	-	1	1	-	-	-	-	-	-
Other	-	-	-	-	3	4	-	-	-	-	-	-

Table 9--Continued

Temporary Employees											
White	-	-	-	3	2	-	5	-	2	-	-
Eskimo	-	-	2	1	32	-	2	-	-	-	-
Indian	-	-	1	1	7	-	-	-	-	-	-
Other	-	1	1	-	16	-	1	-	-	-	1

Civil Servants												
White	-	-	-	1	1	1	1	1	4	-	11	1
Eskimo	-	-	-	-	-	-	1	-	-	-	-	-

^a Based on hourly wage for a 40-hour week. In fact, most employees will work longer than this. Totals exclude northern allowances.

In addition, the security of job tenure is generally greater among whites. In part, this is a function of the nature of the local economy. Many natives wish wage employment only during the months when they are not in their winter camps. The burden imposed by the seasonality of much northern employment is in the main borne by the native employee. Among native wage employees, the number of jobs available and the total earnings are less in the winter months than in the summer. This tendency is if anything more marked in the smaller settlements where much of the employment is in projects (Table 10).

Table 10--Winter and Summer Employment, Department of Northern
Affairs and National Resources

	Jan. 1-15, 1965		July 1-15, 1965	
	Number	Earnings (dollars)	Number	Earnings (dollars)
Inuvik				
Eskimos	27	6262	47	10,387
Indians	3	501	10	1,923
Others	27	6740	36	8,011
Aklavik				
Eskimos	4	765	8	1,849
Indians	3	705	23	3,169
Others	2	260	10	2,166
Fort McPherson				
Indians	2	477	7	1,371
Others	-	-	2	190

Source: Department of Northern Affairs, Inuvik.

Of course, as has already been stressed, many natives employed only in the summer months will be engaged in trapping in the winter and will thus have an additional source of income. However, it is clear that income from trapping is almost always very small indeed and thus considerable seasonal adjustment in patterns of consumption must be made by such people.

In government departments other than the Department of Northern Affairs, the bias towards white employment is even

greater (Table 11). Of a total of employees in other government departments, 78.6 percent are white. Once again, natives are generally employed at prevailing rates and thus earn between \$300 and \$350 per month.

Table 11--Inuvik Employment, By Income and Ethnic Status, July, 1965

Government Departments Other than NA&NR^a

	Monthly Income											
	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
White	-	10	3	14	7	4	5	23	7	3	33	1
Eskimo	3	7	-	1	13	-	-	1	-	-	-	-
Indian	-	9	1	1	7	1	-	-	3	-	1	-
Other	-	1	-	1	1	-	-	-	2	-	-	-

^a Department of Public Works, Department of National Health and Welfare, Department of National Defence (excluding service personnel), Inuvik, Research Laboratory, Northern Canada Power Commission.

School Hostels^b

White	-	-	1	-	1	-	-	6	1	4	5	1
Eskimo	-	-	-	6	-	2	-	1	-	-	-	-
Indian	-	-	-	5	-	1	-	1	-	-	-	-
Other	-	-	-	1	-	-	-	-	-	-	-	-

^b Including priests, nuns, and ministers working in the hostels.

The Private Sector

A similar bias is apparent in the private sector, although the reasons given for not employing native people are generally quite specific. Many employers would seem to be prejudiced against

employing natives by unfortunate experience in the past. Since their operations are somewhat marginal,¹ they cannot afford to take risks with employees whom they consider unreliable. Thus they will show a preference to recruit workers from the fairly sizeable pool of employable whites in Inuvik. This pool is in the main made up of wives of government employees and service personnel, but includes also a few servicemen who wish to make extra income by "moonlighting".

In fairness to the local entrepreneur, it must be noted that the turnover in native employees is marked--a fact which may give some substance to the claim of unreliability. In Tuktoyaktuk, where available employment is limited in any case, the local Community Association has taken some initiative in preparing a list of available (and by implication "reliable") workers which it plans to circulate among local employers. This is a step which may well be recommended for Delta settlements. Although no definite evidence can be presented at this stage, the impression remains that there are several skilled and reliable workers in Inuvik who would wish to be permanently employed but are unable to find jobs because their good reputations are not well known to potential employers.

It is often claimed that young native girls are particularly undependable. Of course, many teenage girls only recently out of

¹ Based on credit ratings given in the Dun and Bradstreet directory.

school are by no means committed to a wage-earning career. It is no surprise that this group in particular only hold down a job for a few months.

Even among other groups, employment presents a fairly fluid picture. The fact that certain jobs exist is no indication that they are occupied by the same individuals during the course of a year, or even a period of only a few months. A deficiency of the present survey is that it has made no attempt to link specific jobs with specific individuals. Further evidence would be required to assess the validity of the fairly widespread belief that the native works for wages to fulfil immediate needs, and quits his job when these needs are fulfilled. Specifically, rigorous comparison of the reasons given by both the employer and the employee for an individual's leaving his job would be helpful in this respect.

Table 12--Inuvik Employment, By Income and Ethnic Status, July, 1965

Service Industries^a

	Monthly Income											
	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
White	-	4	1	5	-	-	2	-	3	1	11	4
Eskimo	--	1	-	-	-	-	-	-	2	1	-	-
Indian	-	3	-	-	-	-	-	-	-	3	-	-
Other	-	2	-	-	-	-	-	-	-	1	-	1

Barber Shop and Beauty Salon, Canadian Imperial Bank of Commerce, Imperial Oil, Inuvik Development Corporation, Mackenzie Hotel, Tuk Traders, Laundry. Retail Stores (i.e. Hudson's Bay Company, F.L. Semmler, and Territorial Liquor Commission) are excluded.

Other Non-Government Industries^b

	Under 250	250-300	300-350	350-400	400-450	Over 450
White	-	-	1	--	1	12
Eskimo	-	-	1	-	1	2
Indian	-	-	1	1	-	-
Other	-	-	1	1	1	-

^b Douglas Trucking, Great Northern Airways, Northern Transportation, Pacific Western Airlines, Radio Station CHAK, Reindeer Air Service, Gordon Campbell Construction.

The attitudes of private employers tell a great deal about the present and potential economic development of the region. It is possible that these attitudes conform to a typology of the entrepreneurial group itself. A tentative division may be made between the "old-timers" and the "newcomers". The former generally entered the area as trappers, and during the course of long careers in the North have attempted activities ranging from mink-ranching to coal-mining. In general, their attitudes seem to be more conservative than would be expected by the evidence of their past enterprise. They seem as a group more aware of their dependence on government activity than the newcomers.

Although substantial incomes were to be made from private enterprise in the past in this region, opportunities are undoubtedly decreasing (or what is perhaps more important, appear to those concerned to be decreasing) as government assumes a greater role in the region's economy. Many of the older members of the entrepreneurial

group express the view that their function has been usurped by government activity, or their enterprise hindered by government restrictions. In a few cases this view is justified. An example may be taken of the local contractor who developed a coal mine northwest of Aklavik during a period of about twenty years, only to find that his sole market disappeared due to a government decision to install oil burning furnaces in the building he supplied. What is important here is not whether this or any other action on the part of government may be defended or criticized, but that it has induced willy-nilly some fairly consistent attitudes on the part of many who in the past saw themselves as controlling to a large degree the economy of the region.

The impression is widespread among this group that government could stimulate private enterprise in the region by, for example, encouraging the use of local retail activities by government employees from outside, awarding contracts locally for hauling gravel and lumber rather than using government facilities, or by removing restrictions which tend to discourage investment. In all cases, individual initiative seems to have been watered down by a feeling that success is only possible with government blessing.

It should be said that the entrepreneurs who hold these views are generally long established in the area and fairly traditional in their business attitudes. The newcomers, on the other hand,

represent a class of business activity which has developed concurrently with growing government interest in the area. These people seem (with some qualifications) to accept and indeed welcome the role of government. They have evidently profited from the fact that less capital investment is required to start a business in the North than is required outside. In addition, business methods have not necessarily to be as aggressive as those which would guarantee success outside.

Inuvik in Comparison with the Other Settlements

The newcomers are more apparent in Inuvik than in the other settlements for just as the growth of government activity has been greatest here, so also has the growth of the entrepreneurial sector.

The structure of the wage economy in Inuvik may attract criticism on the grounds that (a) it emphasizes the service activities which do not contribute to the settlement's potential economic growth, and (b) that it favours white employees in the higher paid occupations. However, it is unlikely that had Inuvik not come into existence the opportunities for wage employment would have expanded to their present degree.

Of the employment opportunities survey (Table 13), 54 percent are at present occupied by whites. Of these, 36 persons are in occupations for which the income exceeds \$450 per month. Eskimos are employed in 24 percent of the available jobs (men, 18

percent and women, 6 percent), and Indians in 12 percent (men, 5 percent and women, 7 percent). Of these jobs, the greater number by far command a monthly income between \$300 and \$350 per month.

Table 13--Inuvik Employment^a--By Income and Ethnic Status,
 July, 1965

	Monthly Income											
	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
White	-	14	5	23	13	6	16	31	24	8	73	8
Eskimo	3	8	2	9	61	3	3	2	3	1	3	-
Indian	1	12	2	7	14	4	1	1	3	3	1	-
Other	-	4	1	2	20	5	2	-	3	1	1	1

^aDepartment of Northern Affairs (excluding teachers), Inuvik Research Laboratory, Department of Public Works, Department of National Health and Welfare, Department of National Defence (excluding service personnel), Barber Shop and Beauty Salon, Canadian Imperial Bank of Commerce, Imperial Oil, Inuvik Development Corporation, Mackenzie Hotel, Tuk Traders, Government Laundry, Douglas Trucking, Great Northern Airways, Northern Transportation, Pacific Western Airlines, Northern Canada Power Commission, Radio Station CHAK, Reindeer Air Service, Gordon Campbell Construction, R.C. Hostel, Anglican Hostel.

It is to be expected that as the amount of training received by native peoples increases the necessity of importing skilled workers from outside will diminish. Natives should be expected to move in increasing numbers into the higher paid occupations at present filled by whites from outside.

The discontinuity between high-paid jobs occupied by whites and low-paid jobs occupied by natives is more apparent in the smaller settlements than in Inuvik. In Aklavik in particular, virtually

WAGE EMPLOYMENT, BY INCOME & ETHNIC STATUS

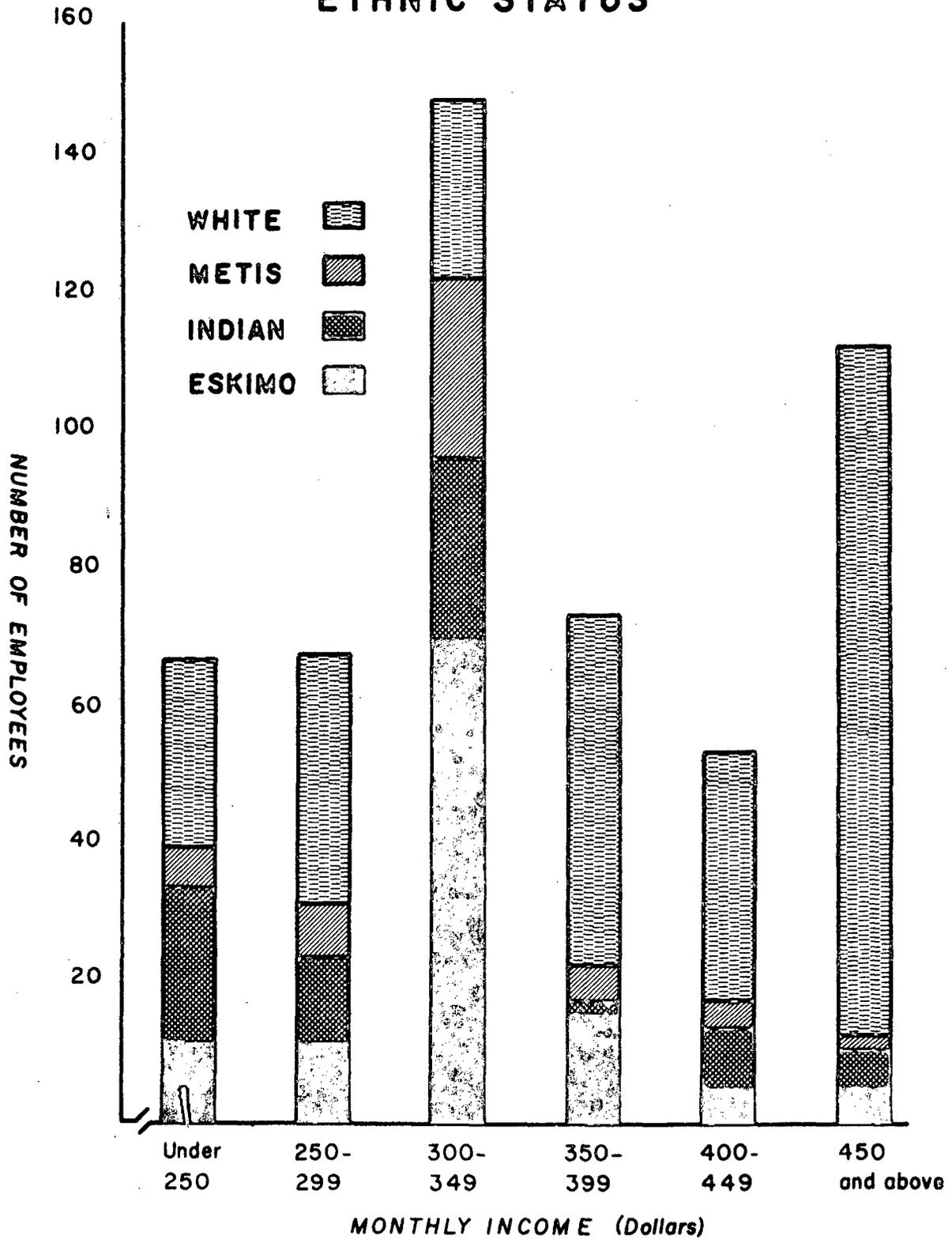


Fig. 4

all the higher income jobs are occupied by whites, and virtually all the lower income jobs by natives. In Fort McPherson, in slight contrast, five Indian people are in jobs with a monthly income exceeding \$450.

Table 14--Aklavik Employment, July, 1965

	White	Indian	Eskimo	Other
Dept. of Northern Affairs	2	3	6	1
School	6	-	-	-
Sawmill	1	4	4	1
NCPC	2	-	3	-
National Health and Welfare	2	-	3	-
RCMP	3	-	1	-
Hudson's Bay Company	4	-	-	1
Peffer's Store	1	-	1	-
Imperial Oil	1	-	-	-
Restaurant	1	-	3	-
Total	23	7	19	3

Table 15--Aklavik Employment^a, By Income and Ethnic Status, July, 1965

	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
White	-	-	-	-	-	-	1	-	-	-	5	2
Eskimo	-	1	-	1	6	-	5	-	1	-	2	-
Indian	-	-	1	1	5	-	-	-	-	-	-	-
Other	-	-	1	-	-	-	-	-	-	-	1	-

^aDepartment of Northern Affairs (excluding teachers), NCPC, Department of National Health and Welfare, Peffer's Store, Imperial Oil.

Table 16--Fort McPherson Employment, July, 1965

	White	Indian	Eskimo	Other
Northern Canada Power Comm.	6	8	-	2
Dept. of Northern Affairs	8 ^a	-	-	1
Citizenship and Immigration	1	1	-	-
National Health and Welfare	1	1	-	-
Game Branch	1	1	-	-
RCMP	2	-	-	-
Fleming Hall (Anglican)	4	8	-	1
Hudson's Bay Company	2	3	-	-
Roy Wright	3	-	-	-
Alex Forman	1	1	-	-
Mike Krutko	1	2	-	-
Total	30	25	-	4
^a Teachers				

Table 17--Fort McPherson Employment^a, By Income and Ethnic Status, July, 1965

	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
White	-	-	-	-	1	1	-	1	2	-	9	1
Indian	-	9	-	1	3	1	-	-	3	-	5	-
Metis	-	-	1	-	-	-	1	-	-	-	-	-

^a Northern Canada Power Commission, Department of Northern Affairs (exc. teachers and including Game Branch), Department of Citizenship and Immigration, Department of National Health and Welfare, Fleming Hall, A. D. Forman, M. Krutko.

Table 18--Delta Settlements Employment^a, July, 1965

	Monthly Income											
	Under 250		250-300		300-350		350-400		400-450		Over 450	
	M	F	M	F	M	F	M	F	M	F	M	F
White	9	18	10	26	14	7	19	32	28	8	89	11
Eskimo	3	9	2	10	67	3	14	2	4	1	5	-
Indian	1	21	3	9	22	5	1	1	6	3	6	-
Other	-	6	4	4	20	5	5	-	3	1	1	1
Totals	13	54	19	49	123	20	39	35	41	13	101	12

^aInuvik, Aklavik, Reindeer Station, Fort McPherson, Arctic Red River. Excluded are service personnel of HMCS Inuvik, RCMP officers and special constables, teachers with Department of Northern Affairs and National Resources, Religious functionaries apart from those serving in student hostels. Also excluded, due to lack of data, were Department of Transport, Department of Citizenship and Immigration, F.L. Semmler, Territorial Liquor Commission, Norris Contracting, Weiderman Taxi, Mackenzie Delta Construction, Inuvik Painting and Decorating (all in Inuvik); Roy Wright (Ft. McPherson); recently opened restaurant (Aklavik).

The opportunities for wage employment are fewer in the smaller settlements than in Inuvik. As a result, many of the more ambitious or better skilled workers have either moved to Inuvik permanently, or move there temporarily for the summer months. In Fort McPherson and Aklavik, a few men have been able to obtain jobs recently with oil companies carrying out exploratory activities in the Delta and adjacent areas. Two men from Fort McPherson have obtained such jobs on a permanent basis, but for the most part this work has been very irregular. The major oil companies were polled as part of the survey on which this report is based, but none had employed Delta people for other than casual work, nor saw the possibility of doing so in the future.

Other employment is available in the smaller settlements in winter work programmes and in guiding.

In Fort McPherson for example, 16 men were employed in the winter of 1964-65 in building a winter road to Arctic Red River, 31 in logging projects, 13 in building an ice bridge across the Peel River, and 25 in miscellaneous winter projects of the Indian Affairs Branch. The total earnings from all these projects were small however, with the result that the men employed had to seek other employment or subsist on welfare payments. In addition, the small amounts of capital invested in some winter projects (in particular the winter road to Arctic Red River) resulted in the work being inadequately performed.

In Aklavik, some work was available for women in the Fur Garment Co-operative, but due to management difficulties this has since temporarily ceased to operate.

Local guiding has offered few opportunities at present, although about 30 guides from the Delta have been employed in Great Bear Lake during the summer months. The training of guides would of course be a suitable prerequisite for any expansion of the tourist industry which takes place.

However, casual or seasonal work of this kind carries with it the disadvantages that it neither provides sufficient income for year round subsistence, nor conditions the employee to accept eventual permanent wage employment. Unfortunately, this has been

the pattern of employment for many Delta people up until the present time. As a result, many have accepted a partial commitment to wage employment and have relinquished traditional patterns of living off the land. The resulting gap between the earnings of these people and their annual requirements for subsistence must be met out of welfare payments. In the first six months of this year, (1965) welfare payments totalled about 90,000 dollars from all sources in the Delta settlements.

FREIGHT MOVEMENTS

The costs of freighting materials into the Mackenzie Delta will provide a barrier to development in the foreseeable future. In many ways, the region is more fortunate in this respect than other parts of the North in that the Mackenzie River provides the means of bringing freight into the region fairly cheaply during the summer months.

There is of course a great discrepancy between amounts of north-bound and south-bound freight on the river. In 1964, a total of 29,698 tons of freight was imported into Mackenzie Delta ports including Tuktoyaktuk (Table 19). Of this, 53 percent was unloaded at Inuvik, 5 percent at Aklavik, 7 percent at Fort McPherson, and 6 percent at Arctic Red River. The remainder went on to Tuktoyaktuk, much of it to be unloaded on to boats serving the Arctic coast. In contrast, 685 tons of freight were shipped south in 1964, 27 percent from Inuvik, 13 percent from

Fort McPherson¹ and 19 percent from Arctic Red River, and the remainder from Tuktoyaktuk and Aklavik.

In 1965, 29, 69 tons of freight were imported into the Delta ports, 65 percent to Inuvik, 7 percent to Aklavik, 13 percent to Fort McPherson, and 8 percent to Arctic Red River (Table 19). Again, only 795 tons were shipped south, 23 percent from Inuvik, 35 percent from Fort McPherson, and 29 percent from Arctic Red River.

Table 19--Freight Shipped into Mackenzie Delta by Barge, 1964 and 1965 (in tons)

To-	1964				
	Inuvik	Aklavik	Tuk	Arctic Red	McPherson
Refrigerated Goods	328	33	-	3	57
Oil Products	11,327	1,136	1,558	1,254	3,696
Building Materials and other freight	4,009	321	571	608	4,797
1964 Total	15,664	1,490	2,129	1,865	8,550
	1965				
Refrigerated Goods	228	26	10	4	50
Oil Products	14,861	1,456	1,598	1,744	2,220
Building Materials and other freight	4,185	572	621	565	1,729
1965 Total	19,274	2,054	2,229	2,313	3,999

Source: per. comm. D.S. Robinson, Northern Transportation Co. Ltd.

The discrepancy between incoming and outgoing freight of course results in higher freight rates, since the carrier has to bear most of the costs of the return trip.

¹ Much of this is accounted for by a drill rig shipped to Fort McPherson from Hay River.

The greater proportion of incoming freight consists of oil and oil products from Norman Wells. In Inuvik in 1965 72 percent of the incoming freight was oil, 76 percent in Aklavik, 43 percent in Fort McPherson, and 67 percent in Arctic Red River. Oil forms the major fuel input of the Delta settlements, although in Fort McPherson in particular most of domestic heating is from wood-burning stoves. Electrical energy is also derived almost entirely from deisel generators, although once again in Fort McPherson at least one domestic wind-generator is in use.

Refrigerated goods are also shipped into the Delta by barge and in this case, no return freight is possible. The expansion of the Reindeer Project and the introduction of commercial fishing would of course provide return cargo for refrigerated barges.

Most outgoing freight consists of equipment being sent out for repairs, personal effects of personnel returning south and empty oil drums to Norman Wells.

Inuvik is served by three scheduled flights per week from Edmonton by commercial aircraft, together with some privately chartered flights and service aircraft. The smaller settlements are served by feeder services originating out of Inuvik.

By far the greatest amounts of air freight are bound for Inuvik itself. Inuvik received 88 percent of the total freight entering the region in 1964-65 (Table 20). Amounts of air freight

reach a peak in the winter months when barge services are not available. In the summer months, when air freight is less, the number of passengers carried is, of course, greater.

As in the case of water-borne freight, outbound freight is much smaller in quantity than inbound (Table 21), which once more results in the carrier having to meet the costs of the return trip with higher rates than would be possible were amounts of ingoing and outgoing freight more equal.

Table 20--Freight Carried on PWA Scheduled Flights to Inuvik
(in lbs.), June 1, 1964-May 30, 1965.

Month	Destination					Total
	Inuvik	Aklavik	Fort McPherson	Arctic Red River	Tuktoyaktuk	
June	59,402	1,673	1,129	97	-	62,301
July	54,340	1,747	775	70	-	56,980
August	56,482	2,820	1,408	95	-	60,805
September	52,790	2,223	3,109	-	1,097	59,219
October	58,041	3,195	2,042	112	1,623	65,013
November	62,402	3,192	6,755	103	2,773	75,225
December	85,484	5,226	4,479	2,029	3,362	100,580
January	70,683	7,540	1,651	24	2,689	82,587
February	74,425	4,812	3,467	592	3,374	86,670
March	76,035	4,145	2,947	46	4,085	87,257
April	83,895	4,215	4,429	41	6,455	99,035
May	86,564	1,667	799	-	2,852	91,882
Year	820,543	42,455	32,989	3,209	28,358	927,554

Source: Telex messages describing each flight leaving Norman Wells.

Table 21--Air Freight from Inuvik (lbs.), 1964

	Destination					
	Edmonton ^a	Aklavik	Fort McPherson	Arctic Red River	Tuktoyaktuk	Others ^b
January	4,819	1,473	723	598	285	1,433
February	4,736	1,406	3,038	111	118	1,215
March	3,897	741	711	66	687	1,044
April	5,762	759	777	161	174	823
May	8,026	1,023	329	476	680	2,796
June	15,851	967	1,203	28	47	897
July	19,043	1,245	1,505	532	923	2,243
August	28,872	3,053	1,014	57	396	2,707
September	11,263	1,296	937	699	1,926	2,723
October	8,323	907	828	83	732*	2,911
November	5,516	2,891	570	135	1,292	3,674
December	6,920	2,110	1,216	154	1,548	2,811
Year	123,028	17,871	12,851	3,100	8,808	25,277

Source: Freight Manifests held by Inuvik office of Pacific Western Airlines.

^aPoints outside the Mackenzie District via Edmonton.

^bOther points in the Mackenzie District.

CONCLUSIONS

The Economy of the Mackenzie Delta

It is apparent that the resource base of the Mackenzie Delta is insufficient to support the present population. The region is not however unique in this respect. Many other parts of Canada experience the same problems, but elsewhere, the remedy may be sought through out-migration. In the Mackenzie Delta constraints are placed upon out-migration by the relative isolation of the area and the necessity for cultural adaption which must precede a move to the south. The decision to leave the Delta for Edmonton involves a greater range of variables even than that to leave a Newfoundland outport for Toronto. The fact that many Delta people have successfully accomplished this transition augurs well for the future, especially since the younger people are on the whole better able to make the adjustment than their parents. It has often been said that the problem generation of the North is that which comprises those young enough to be affected by the impact of the southern socioeconomic system, but too old to have been prepared for this impact by a training based upon the southern value system. It is likely that the economic well-being of this generation at least must be based upon the patterns of exploitation of local resources to which they are accustomed.

The resources which have been exploited to date are characterized by (1) an extensive distribution, and (2) their generally marginal character.

The exploitation either for cash income or for subsistence, of fur-bearers, game, fish, and forest resources demands a population distribution which is both dispersed, and experiences major seasonal adjustments. Different locations are required for the exploitation of caribou, of fish, and of the muskrat. If a trapper has the equipment and the skill to trap for fine furs he must often be prepared to be away from his family for several months. In contrast to the demands imposed by the geographical distribution of resources, forces of population concentration have been active to a greater or lesser degree for the past fifty years at least. Until fairly recently, these have been insufficiently persuasive to encourage large numbers of people to reside permanently in the settlements. Even a decade ago, a large portion of the native population was evenly dispersed throughout the Delta during the winter months. The economic inducements to maintain trapping camps have since declined, while centripetal forces have seemingly increased in intensity. Schools, hospitals, movie theatres, beverage rooms, and other urban amenities exercise a strong inducement for the individual to remain in the settlement. In contrast, the arguments for living "on the land" seem flimsy.

The income to be expected from trading furs has declined in recent years both for the individual and for the region as a whole. In the 1964-65 season, the value of furs traded into the settlements

was in the neighbourhood of 160,000 dollars¹ by some 390 individuals.

Although there may be some small hope that a small group of professional trappers will continue to harvest the furs of the Delta, it is unlikely that this sector of the economy will ever regain its former stature.

The harvesting of furs formed the keystone in a human eco-system which persists to the present. Successful trapping is intimately associated with the use of the other local resources of fish, used as food for both dogs and people, and wood, used for fuel and building materials.

For the people who cannot hope to derive sufficient income from trapping, two alternatives present themselves.

1. Either they may maintain the seasonal movements originally based upon the trapping economy, but with an emphasis which has shifted from harvesting furs for cash income to harvesting fish and game for subsistence, or
2. they may take up permanent residence in the settlements and, if unable (or unwilling) to find employment, subsist on welfare payments.

In fact, many people compromise between these two alternatives by staying in the settlement for much of the time, but spending some weeks on the land, trapping, fishing, or hunting in a rather haphazard fashion.

¹ Some of this amount was accounted for by furs traded into Inuvik from Sachs Harbour. (9,842 dollars, pers. comm., P. Usher).

The tendency in recent years has thus been for the number of people living permanently in the settlements to increase. In some cases this has given rise to extreme pressure on available housing and resulted in the growth of shack towns. Perhaps the worst example of this development is found in Inuvik's "tent town", which had, however, decreased in size somewhat by 1965.

Significantly, the population of the settlements has altered little since the construction of Inuvik (Tables 22 and 23). Thus the number of people living in settlements represented by the Inuvik population is accounted for by the excess of births over deaths, but also by people moving off the land.

Table 22--Population in the Settlements, 1956-58

Settlement	White	Metis	Eskimo	Indian	Total
Aklavik (1958)	560		c250	c170	c980
Reindeer Station (1958)	14	-	61	-	75
Fort McPherson (1956)	29	36	-	400	465
Arctic Red River (1956)	10	13	-	85	108

Source: Dept. of Nat. Health and Welfare, Edmonton.

The net increase of population, it must be noted, is higher in the native sector than the Canadian Average (6-9 percent compared with 2 percent). However, even taking this source of increase into account, it is apparent that the centripetal forces have exceeded the centrifugal forces in the Delta.

Table 23--Population in the Settlements, 1965

Settlement	White	Metis	Eskimo	Indian	Total
Inuvik ^a	1367		646	245	2264
(Hostel)	(102)		(270)	(114)	(486)
Aklavik	105	134	277	158	674
Reindeer Station	9	-	60	-	69
Fort McPherson	29	158	12	315	514
Arctic Red River	5	21	-	83	110

^a Including children living in the hostels, but excluding single navy men living in barracks.

Thus, regional planning must almost inevitably seek to strengthen the economic base of the settlements, since this is evidently where the greater number of people prefer to live.

Supplying the Needs of the Settlements from Local Resources

There is no doubt that the costs of maintaining the settlements, which are largely met from Federal funds, could be reduced by supplying more of their needs from local resources.

Two possibilities exist for the future.

1. The exploitation of local food resources may be reoriented from a subsistence to a cash economy in order to supply the needs of the increasing numbers of persons living in the settlements.

This reorientation would of course provide an additional source of cash income for those continuing to live on the land. At present, this shift of emphasis is exhibited on a limited scale as, for example, when traders purchase fish from local fishermen for resale.

2. Local needs for building materials may be met increasingly from the expansion of the forest industry.

At present, the low standards of living prevailing in the settlements are, in part at least, a function of the high costs of living. Amelioration of living conditions would be produced by a reduction in, for example, food costs, either by the application of direct subsidies, by the subsidization of transport costs, or by a greater emphasis upon locally produced foods.

Continued Resource Exploitation

These measures are of course dependent upon the continued exploitation of the slim resource base. Two concomitant problems have been experienced in this context to the present time.

1. Too many people have been occupied in exploiting local resources and, as a result, only very few have been able to make an adequate income from doing so. It is true certainly that fishing, hunting, and trapping are labour-intensive activities but they could probably yield greater returns for less effort were they engaged in by fewer people.
2. Activities based upon the use of local resources are seasonal. Some attempts have been made recently to fill the gaps in the annual cycle of activities in order to provide income in otherwise slack periods. The Forestry Projects currently in operation is an example of this, and commercial fishing may be regarded in this way also.

In government sponsored activities, it is often not clear whether the natural or human resource is to be developed. Thus, conflicts arise as to whether a particular industry's primary function is to provide economic support for the families of those it employs, or to make a profit. Unfortunately, the marginal nature of industrial activity in the North usually precludes the possibility of doing both.

Commercial fishing perhaps holds more promise of both providing economic support for Delta families while operating on a profit making basis. However, this development must at present be viewed with some caution.

1. The U.S. markets may be penetrated only with the co-operation of the U.S. fish marketing organizations. Access to these markets may well be a necessary prerequisite to commercial fishing in the Mackenzie Delta.
2. A danger exists that local fishermen would soon find themselves overly dependent upon commercial fishermen, should these enter the region. The dispersed nature of the local fisheries would demand that the commercial fishermen purchase fish from local people, who may well trade fish which they would otherwise require for their own use. Given the ever-present tendency for cash income to be dissipated in ways which produce no permanent improvement in the economic well-being of the individual, it is possible that transactions of this kind could have ill effects on those engaging in them.

The Energy Resources of the Delta

Paradoxically, the greatest potential for development in the Delta lies in its energy resources. Oil and natural gas are likely to occur in the region, and even the Mackenzie River represents a source of energy which elsewhere would undoubtedly be harnessed. While in the south, energy resources provide a sound basis for economic development, it is not likely that they will do so in the Delta. Processing oil products in situ, for example, might well prove uneconomic. If exploitation of these resources does take place it is more likely that it will result in their export from the region in crude form either by pipeline or by water.

FUTURE RESEARCH DIRECTIONS

Future research should seek to analyse the natural and human resources of the Mackenzie Delta, and the potential interaction between them. Research which has an implicit predictive quality will evidently be of greater use in the determination of policy directions than that which has purely academic aims. However, since relatively little is known of the human resources in particular of the Mackenzie Delta, some empirically derived framework should form an essential prelude to predictive work.

Research of this kind will be concerned above all with the present human ecology of the region and with its potential for change. The region has within two generations been subject to external economic stimuli -- the whaling and trapping economies for example -- which have brought about profound readjustments in the ways of life of its people. A greater understanding of the specific ways in which these readjustments have taken place in the past will lead to a more rational appreciation of the capacity for change of the area's population, and will enable those sectors in which change is most likely to occur to be identified.

Economic Growth

Since the region contains little significant self-generating economic activity, its economic growth will be entirely dependent, at least initially, upon capital inputs from outside. Unfortunately, the nature of the resource base has not encouraged

such inputs by the private sector in the past, since both whaling and trapping were essentially exploitive activities which did not require a complex economic infrastructure. Thus, capital inputs have derived almost entirely from the government sector and have been directed largely towards the strategic and administrative establishments.

It is impossible to view economic growth in the Mackenzie Delta outside of the context of economic policy for Canada as a whole. It is thus relevant to consider the goals stated by the Economic Council regarding the reduction of regional disparities.

As stated in the Council's Second Annual Review:

There are . . . two main inter-related considerations involved in moving towards a better regional balance. The first is the importance of reducing the relative disparities in average levels of income as they presently exist among the regions . . . The second consideration is the need to assure that each region contributes to total national output, and to the sustained long-run growth of that output, on the basis of the fullest and most efficient use of the human and material resources available to the region (Economic Council of Canada 1965: 98-99).

The human and material resources of the Mackenzie Delta have not to the present been put to their fullest and most efficient use due to both environmental and cultural constraints.

Environmental Constraints

The environmental constraints do not require detailed description since they have been fully documented elsewhere (Mackay 1963).

Further research into the physical landscape will contribute to the solution of remaining problems concerning construction techniques in permafrost (Muller 1945),¹ and of floral and faunal adjustments to an Arctic environment. Although studies of this nature will continue to be of use in the solution of specific local problems, they are unlikely to present startling alternatives of large scale regional development.

Broadly, the characteristics of the physical environment are sufficiently well understood at present for the constraints they impose upon economic growth to be identified. These would include;

1. The high cost of construction in permafrost areas and the difficulties involved in constructing and maintaining roads;
2. The unlikelihood of fostering a large-scale forestry program in an area where an extremely short growing season inhibits the rapid growth of conifers;
3. The difficulty of servicing a population which is dispersed, in part because of the past and present patterns of resource exploitation; and
4. The isolation of the region from the mainstream of Canadian economic activity and the consequent high cost of supplying materials from the South.

1. Intelligence Division, August, 1945. This represents¹ an early statement of the problem, based upon reports of research conducted in the USSR. Specific information on Mackenzie Delta locations is provided in the Terrain Site Analyses of the Department of Mines and Technical Services.

Cultural Constraints and Cultural Research

The rate of regional economic progress will depend in large measure upon the view the region's people have of their physical and social environment.

In this context a purely ethnic differentiation of the population has decreasing relevance. The distinctions between White, Eskimo, Indian and Metis people is of less importance in the economic context than those between what could be called the native and non-native sectors. The native sector would include members of all ethnic groups who were born in the region or in other northern regions, and whose style of life is related to a greater or lesser extent to the northern environment.

The non-native sector would include those who have entered the region from outside, and whose style of life is not very dissimilar from that of the southern Canadian.

With regard to future growth, two alternatives would seem to be possible. Either the major decision-making processes will fall increasingly into the hands of the non-native group resulting in the native group assuming an economically subservient and unproductive role: or the native group will be able to adjust sufficiently to the demands of a more complex socio-economic situation and itself assume the decision-making role.

Within these two major divisions of the population, a more complex typology can almost certainly be recognized. Indeed it should be an aim of future research to identify the elements of this typology in quantitative terms. Cultural differentiation among the population produces problems in predicting the response to economic stimuli, since this response is always conditioned by the perception the individual has of his physical and cultural environment.

It is upon the contents of a decision-maker's mind that both his manner of sizing up his environment, and his subsequent response depends. He does not respond to an environment as such. Instead he responds to his image of that environment, to an image that is conditioned by his map of the somewhat larger and more inclusive but seemingly relevant world (Spengler 1961).

The varying perceptions that the people of the Delta hold of their region and of the wider universe of which it is a part have undoubtedly resulted in much confusion and misunderstanding. To be specific, different sectors of the population have views on such matters as welfare payments, the role of the Department of Northern Affairs, the purposes of education, etc., which are completely at variance.

Future research should attempt to solve these problems in a clearly defined sequence as follows:

1. The identification of the main cultural groupings.

The resulting typology would be based upon the life-styles and degrees of acculturation exhibited rather than on the basis of ascribed ethnic identity.

2. The analysis of the perception of the physical and cultural environment held by each subgroup within the typology.

The stated attitude of members of each subgroup may contribute to this analysis, as would also the ecological pattern exhibited by each subgroup.

Predictive economic models will only have meaning when seen in the context of the cultural framework. Thus, the identification of the diverse elements of the region's cultural matrix must precede, or at least accompany, the formulation of policies related to economic growth.

Establishing Goals

In the past, goals have not always been clearly established. The failure to distinguish between economic and social goals has bedevilled both the Reindeer Project and the Forestry Project, to name two examples.

Long range economic goals as opposed to day to day administrative procedures, have in the past and will in the foreseeable future, be set up by external decision-makers in the government or private sectors. That this is a source of frustration for local people is unfortunate, but perhaps inevitable, since it is in some measure the result of the workings of an established chain of authority which is likely

to persist. Advantage may however lie in this fact, since external decision-makers may be able to maintain a degree of objectivity impossible for those more closely involved in the region's economy.

In essence, goals for the region could include the following alternatives:

1. Goals related to a fully integrated and self-sufficient economic growth as advocated by the Economical Council (Economic Council of Canada, 1965). It should be recognized from the outset that the economic base of the region as it is known at present is probably insufficient to support growth of this kind. Few resources exist in the region which would generate capital sufficient for the stimulation of new economic activity.
2. Goals related to population movement
Given the slim resource base, out-migration might be encouraged as a long-term policy. Since this is a policy which has been advocated fairly recently (D. Jenness 1964), it may be worth examining in more detail. Essentially, a policy of this kind would depend upon (a) an educational programme which would prepare young people for easy^t assimilation into the wider Canadian community, (b) the reduction of the influence of geographic barriers in the form of reduced air fares in order to encourage more frequent contact

with the "outside," and (c) an adult training programme related to the employment needs of Canada as a whole rather than to those of the North.

With regard to the last mentioned factor, it may be necessary to view the resource base in a changed light. For example, although a viable forest industry is unlikely in the region, it may be possible to regard forest exploitation as a vehicle for vocational adaptation.

3. Goals related to social health

Some attempt has been made to achieve goals of this kind. Certainly, the public conscience is more easily stirred by evidence of social than of economic ills. Unfortunately, the remedies used often have the effect of obscuring rather than relieving root causes. For example, the policy of equalizing incomes in the form of welfare payments is unlikely to result in real social gains.

Descriptive and Predictive Models

Once goals have been established at least in general terms, it may be possible to predict the directions of economic growth. The following may be mentioned as examples of regional analysis techniques which have achieved a degree of acceptance.

1. Regional Input-Output Analysis

In this technique, a matrix of regional inputs and outputs is constructed. This may be used as a descriptive device which records the relevant information pertaining to the region's economy and reveals gaps in data. More significantly, the input-output approach offers a technique for projection (Isard 1960).

2. Linear Programming

This represents a model in which economic growth policy may be represented by a set of relationships between dependent and independent variables. Some function of the dependent variable (e.g. regional output) may be maximized subject to known constraints placed on other variables.

The assumption of a closed system reduces the applicability of this type of model in its simplest form where fluctuating capital inputs are received from outside the system as the result of (a) external administrative policies, or (b) interregional trading relationships.

In some ways it would be preferable to regard the Mackenzie Delta as a subsystem within the Canadian Economy, or at least within the economy of the Mackenzie District. A refinement of the linear programming model has been suggested (Rahman 1963) in which capital inputs from a more

productive sub-region (e.g. Yellowknife-Hay River) are allowed to stimulate economic growth within a less productive region (e.g. the Mackenzie Delta).

3. Regional Accounts

Techniques which consider social as well as economic benefits may be described as benefit-cost analysis. It is possible to consider benefits and costs using techniques known as "regional accounting" (Hochwald 1961). Such techniques provide the rigorous framework required for the evaluation of the effects which may be expected from capital inputs from various sources upon the region's social and economic development. Two approaches are possible (Hoover & Chinitz 1961) -- the horizontal and the vertical -- of which the latter would appear to be more suited to the analysis of the Mackenzie Delta. In this approach, "events or influences emanating from the outside world (are regarded) as exogenous (and the approach) merely seeks to provide a mechanism for evaluating the internal impact of certain types of event that may be assumed to occur" (ibid). Prediction may thus be made upon the basis of such varied elements as altered welfare administration procedures, the impact of an oil and natural gas exploitation economy, changes in the pricing and/or marketing procedures of furs, etc.

Conclusions

To recapitulate at this point, future research related to policy should follow a sequence of clearly defined procedures.

1. An empirically derived description of the resource utilization of the region, related to human ecological patterns both at present and in the immediate past, in order to assess the dimensions of change.
2. The formulation or identification of broad policy guide lines defining the long range goals of regional development in terms of economic and/or social needs, accompanied by,
3. The quantitative description of the present economy of the region by some model in which social and economic events are systematically related and by which predictions may be made.

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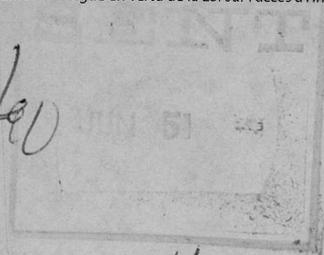
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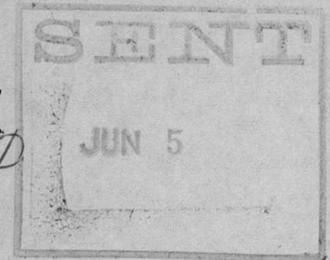
Ottawa *h*, June 5, 1967. *X*

Mackenzie Delta Research Project

-- Enclosed herewith are 15 copies of "The Mackenzie Delta - Its Economic Base and Development" a preliminary study by John R. Wolforth. Please inform me if you require additional copies.

[Handwritten signature]
Director

G. Smith/cl/D



COMMISSIONER OF THE NORTHWEST TERRITORIES Ottawa 4, June 5, 1967.

Mackenzie Delta Research Project

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Attached is a copy of "The Mackenzie Delta - Its Economic Base and Development" a preliminary study by John R. Wolferth. If additional copies are required please direct your request to the Chief, Northern Co-ordination and Research Centre.

Director

G. Smith/cl/D

1009-3-16

PA/EL
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DW

MR. HYSLOP

Ottawa 4, 8 March, 1967.

Mackenzie Delta Studies

While I was at Inuvik recently Mr. Butters suggested to me that we need the same kind of study in the Mackenzie Delta as Mr. Usher has recently done for Sachs Harbour. I said that I thought under the Mackenzie Delta Research Project we were studying all aspects of the economic, social and political situation in the Delta but Mr. Butters still felt that a study similar to the Sachs Harbour one would be desirable and that Mr. Usher is prepared to do it. Would you please have Mr. Evans pursue this matter with NCRC and see if there is any action we should take or suggest.

CMB/dw

Director

P. A. M.

D



Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

Mr. K.W. Stairs,
Engineering Division.

Ottawa 4, 1 March, 1967. X

our file/notre dossier
your file/votre dossier

North Admin Br. Ottawa, Ont.
MAR 2 1967
File No. 1009-3-16
Refer To: K. Stairs

I enclose a copy of the Minutes of the Second Mackenzie Delta Research
Project Conference, held in Ottawa on December 6.

May I take this opportunity to thank you for your participation in the
Conference.

A. J. Kerr

A. J. Kerr,
Northern Co-ordination and
Research Centre.



SECOND MACKENZIE DELTA RESEARCH PROJECT CONFERENCE

The second Mackenzie Delta Research Project Conference was held on December 6, 1966, in the Centennial Tower, Ottawa. The Conference, called to discuss preliminary reports of field work undertaken during the summer of 1966 as well as future planning needs, was attended by members of the research team, and by other scientists and administrators with special interest in the Project.

PRESENT:

Mr. A.J. Kerr (Chairman)
Northern Co-ordination and Research Centre,
Department of Indian Affairs and Northern Development

Mr. C. Aasen
Faculty of Engineering
University of Waterloo

Mr. G. Angers
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. D. Bissett
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. C.M. Bolger
Director, Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. Noah Carpenter
Student, University of Manitoba

Dr. P.F. Cooper
Peabody Museum
Salem, Massachusetts

Mr. J. Cox
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Dr. J.B. Ellis
Faculty of Engineering
University of Waterloo

Mr. A.M. Ervin
Department of Anthropology
University of Illinois

Mr. R.J. Green
Education Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

- 2 -

- Mr. S. Hancock
Inuvik Regional Administrator
Department of Indian Affairs and Northern Development
- Mr. R. Helbeque
Indian Affairs Branch
Department of Indian Affairs and Northern Development
- Mr. R.M. Hill
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development
- Mr. S.M. Hodgson
Deputy Commissioner of the Northwest Territories
- Dr. J.J. Honigmann
Institute for Research in Social Science
University of North Carolina
- Mr. L.A.C.O. Hunt
Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. C.T. Hyslop
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Dr. Joseph Lubart
College of Physicians and Surgeons
Columbia University
- Mr. J. Maher
Principal, Inuvik School
Department of Indian Affairs and Northern Development
- Miss S. McBain
Resource and Economic Development Group
Department of Indian Affairs and Northern Development
- Mr. F.J. Neville
Welfare Division
Northern Affairs Branch
Department of Indian Affairs and Northern Development
- Dr. N.S. Novakowski
Canadian Wildlife Service
Department of Indian Affairs and Northern Development
- Mr. G.W. Rowley
Secretary, Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. D.W. Simpson
Education Division
Department of Indian Affairs and Northern Development
- Mr. W. Slipchenko
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

- 3 -

Mr. D. Smith
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

Mr. K.W. Stairs
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. E. Weick
Resource and Economic Development Group
Department of Indian Affairs and Northern Development

Mr. J. Wolforth
Department of Geography
University of British Columbia

Mr. W. Wright
Faculty of Engineering
University of Waterloo

Mr. G.F. Parsons
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern
Development.

(Recording Secretary)

I. INTRODUCTORY REMARKS

1. Mr. A.J. Kerr explained that the Mackenzie Delta Research Project was a multi-discipline program, being carried out in three stages by the Northern Co-ordination and Research Centre. The first stage had been completed in 1965 when preliminary studies were made and certain key problem areas identified. The second stage, undertaken in the summer of 1966 and designed to explore these problem areas in greater depth, involved a team of specialists in economic geography, community planning, anthropology and psychiatry. While most of the field work of the second stage was completed, one anthropologist would continue his current research until the autumn of 1967. The purpose of the present conference was to hear and discuss preliminary reports from the field workers, to seek recommendations for further research, and generally to provide a forum for the exchange of ideas between researchers and administrators.

II. PRESENTATION AND DISCUSSION OF REPORTS

2. Mr. Kerr regretted that it had been impossible to circulate in advance of the conference copies of the reports which would now be presented. Most of the scientists had completed their field work so recently that there had not been time to prepare and distribute formal papers. He called on the researchers to present their reports, and invited the other participants to comment and ask questions after each presentation.

(a) Economic Prospects of the Mackenzie Delta -

by John Wolforth

3. Mr. J. Wolforth said that in the course of his research in the summer of 1966 he had focused his attention on processes of economic change. There were prospects for the exploitation of oil and gas resources in the Mackenzie Delta, but his studies had led him to the conclusion that such developments were unlikely to have much effect on the local economy apart from providing territorial revenues. There was little chance that oil or gas exploitation would provide large scale employment opportunities for the local labour force. Future local employment possibilities rested rather on using the known renewable resources of the area.

There had appeared to be good possibilities for the establishment of an integrated fur products industry in the Delta, designed to meet the production and marketing needs of both primary producers and fur processors. The present Aklavik tannery operation might have formed a nucleus for establishing such an industry, but in spite of its promising beginnings the tannery now appeared to be in difficulties. In spite of these practical problems, a fur products industry did appear to fulfil certain important requirements which any secondary industry in the Delta must meet. These requirements included labour intensiveness, low energy consumption, and a finished product which had high money value and was light to transport to markets.

There was also potential for a forest products industry. Plans had been proceeding in this direction, but a debate had developed over the proposed location of a sawmill. One suggestion had been to place the sawmill at the timber site on the Arctic Red River, while a counter-suggestion was to locate the mill at Aklavik, close to the people who might benefit most from new employment opportunities. If the purpose of establishing a sawmill was to provide jobs, then it should be located so as to provide maximum benefit to the local inhabitants.

A development program for the Delta must take into account the differing economic needs of different local groups. Older people who wished to follow the more traditional way of life should be helped with the means to do so, while local wage employment should be made available for people in the middle-age group, in government service jobs, and in fur and forest products industries. Such jobs should provide opportunities for training and advancement. The generation presently at school should at least be given the choice of emigrating to southern Canada if they wished. This involved preparing them for adjustment to life in the south, which might be accomplished in part by conducting some of the educational program in schools outside the north.

4. Dr. J.B. Ellis suggested there was a need for more information on the proportions of native people who wished to remain in the north, who wished to continue in traditional economic pursuits, and who wished to migrate to southern Canada. It seemed possible that a review of studies already conducted might provide some information in this regard.

5. Dr. J. Lubart said it was a mistake to think that all Eskimos who might be assisted to relocate in southern Canada should be placed initially in middle-class or white-collar positions. There was no reason why they could not, like other "immigrants", take un-skilled jobs at the start, and be given an opportunity to work their way into higher socio-economic levels. Socio-economic mobility was a major feature of southern Canadian life in which native peoples should be given the opportunity, and indeed be encouraged, to participate.

6. Mr. N. Carpenter said that, speaking as an Eskimo resident of the Delta, he agreed with Dr. Lubart.

(b) A Report on Anthropological Field Work -

by A.M. Ervin

7. Mr. A.M. Ervin explained that his assignment had been to explore significant sub-groupings in the Delta population, as a follow-up to a preliminary study conducted by Miss J. Mailhot in the summer of 1965. During his research, Mr. Ervin had considered such factors as ethnicity, styles of life, age and sex groupings, community organization, social stratification, and formal organizations. He had found that in general, social groupings in the Delta were not as strongly defined on the basis of ethnicity as has been reported for other northern areas. Instead, a growing basis of distinction was that of "northerner" versus "southerner", or of the long-time resident of the Delta versus the transient from the provinces. Included among those who identified themselves and were identified as northerners were Indians, Eskimos, Metis, white trappers, entrepreneurs and a few civil servants. In general, these people tended to view the southerners as opportunistic intruders. While ethnic differences remained, they were becoming less important as bases of social distinction.

In Inuvik many native people lacked the education and experience for successful adjustment to town life. Many in the younger generation were growing up in a "welfare culture", and there was a confusion of goals, and lack of any strong sense of identity. Heavy drinking seemed most importantly an expression of psychological depression and economic frustration. Native leadership was weak, and most of the voluntary associations were dominated by transient whites. Many of the younger people were ashamed of their native origins, and a growing number

had become "marginal men" caught between two cultures. Of all the age and sex groupings considered, the young girls appeared to be most acculturated. They placed a high value on town life, and many were rejecting native males and aspiring to marry white men. This led to sexual exploitation by transient white workers, and to attendant social problems.

8. Mr. G. Anders said he was struck by the many parallels between problems and behaviour patterns in Inuvik and in many of the older northern mining communities, and suggested that it might be useful to explore the implications of this parallelism.

9. Mr. R.M. Hill observed that while Inuvik did have social problems, conditions in the town were not all bad. He suggested that further analysis and quantification of data would perhaps serve to bring about a somewhat different perspective on Inuvik.

10. Mr. Wolforth pointed out that the focus of a scientist's attention might well be on pathological factors in a community, and if so these would tend to be emphasized in his report.

11. Dr. J. Lubart said it was his observation that there was even greater social pathology at Inuvik than Mr. Ervin's data had suggested. He added that it was better to over-emphasize the pathology than to ignore it.

(c) A Study Mental Health of Native People in the Delta -

by Dr. J. Lubart

12. Mr. Kerr explained that Dr. Lubart had been concerned with gathering material pertaining to the mental health of the native population, with a view to gaining insights into the causes and effects of psychological stress in a situation of rapid social change. For several reasons, Dr. Lubart had found it necessary to focus attention on the local Eskimo population.

13. Dr. Lubart described his research methods as including participant observation, intensive interviews with selected native people, and analysis of material in police and court records. He questioned the notion that all problems of individual adaptation to social change could be adequately dealt with in quantifiable terms. He summarized a number of values, attitudes, and institutionalized practices which had served socially integrative and psychologically adaptive functions in traditional Eskimo society, but which might be disintegrative or non-adaptive in an urban milieu. These included patterns of sharing, child adoption, permissive child rearing, suppression of rage and overbearing activity, emphasis on shame rather than guilt as a mechanism of social control, and emphasis on equality among adult males and of dominance over females.

It could be hypothesized that in the past, factors in the social and physical environment had contributed to a certain restriction in the range of imaginative and creative thought. New social conditions were permitting women to overcome their traditional inferior status, and women were expressing their resentment of that status by rejecting Eskimo men and aspiring to unions with white men. The Eskimo female aspired to be like the white female, and might seek self-validation

through bearing a white child. Many males were faced with a tremendous sense of failure. They had lost their sense of usefulness and of pride. Unable to compete economically and socially with the white man, and faced with rejection by their women, the Eskimo men often experienced serious psychological disturbance, and tried to curb their anxieties and to enhance their unfavourable self-images by excessive use of alcohol.

Dr. Lubart expressed concern regarding the attitudes of many transient whites toward the local native people. These attitudes ranged from fear and contempt to good-natured indifference; the ethnic stereotypes associated with either of these extremes could contribute to the establishment of a caste system. Dr. Lubart stressed the need for a study of the factors influencing the psychological development of pre-school Eskimo children, with particular emphasis on factors which might stimulate or inhibit the capacity for creative thought. It was his impression that creative activity in children was restricted largely to the making of objects, and that there was relatively little other creative activity of a more imaginative or "philosophical" kind.

14. Mr. Maher endorsed Dr. Lubart's suggestion for a study by a child psychologist.

(d) Functional Evaluation of the Inuvik Settlement Plan -

by C. Aasen and W. Wright

15. Mr. Kerr said that the study by Messrs. Aasen and Wright had been aimed at developing a method for town planning which might have applicability not only in the Mackenzie Delta, but more widely in northern Canada. Because of the large amount of relevant data available for the area the Delta offered special opportunities for developing a methodology.

16. Mr. C. Aasen said that in developing a conceptual framework for planning, he and Mr. Wright were attempting to take into account as many as possible of the variables in the physical and social environment which might be significant for community planning. This was being done with the help of specialists in other disciplines who were participating in the Mackenzie Delta Research Project.

17. Mr. W. Wright said that on the basis of data gathered in the field and using computer techniques, nearly one hundred variables had been subjected to factor analysis, with the object of establishing, if only tentatively, significant relationships between them. This analysis had made it possible to prepare several charts and maps showing graphically the relationships between several empirically identified variables and clusters of variables. Results had been quite promising so far, although further analysis had yet to be done.

18. Mr. J. Cox said he was pleased with the progress made in the study, and thought that the method promised to be useful for community planning in the north. Many problems had to be faced in this field, including the alleviation of overcrowding, and the discovery of alternatives to the "sub-division" type of development, in current use. The physical form of a settlement had a special impact on the way of life of its people, and it was not realistic to separate settlement planning from community development planning.

19. Mr. Anders observed that the social health of an unplanned community was sometimes better than that of a planned community, and therefore it was not entirely facetious to ask if provision should be made in northern settlement planning for slums. It was a known fact that people of similar backgrounds and socio-economic status tended to live together in their own residential areas, apart from people possessing unlike social characteristics. The mingling of unlike types in a single residential area had been attempted in planned communities in the past, but the various groups had not interacted and serious tensions had developed, which were only reduced when people were allowed to form their own residential groupings. It seemed necessary to provide a physical area for the failures, and for those who could not compete in the mainstream of community life.

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23. Mr. Cox said that attempts had been made recently to hold public meetings in some areas to obtain local views, but with indifferent success. He agreed with Mr. Carpenter that opinion surveys were needed, but staff had not been available in the past.

(e) Field Work in Progress -

24. Mr. Kerr invited Mr. D.G. Smith to describe the general nature of the research he was conducting at the present time in the Delta.

25. Mr. Smith said that his current work was an extension of a preliminary study undertaken in the summer of 1965. He expected that his present period of field work would extend over one year, during which time he hoped to develop an ethnography of the Mackenzie Delta. He would examine in some depth the attitudes and values underlying the Delta's social structure. As one technique to study this, he planned to formulate a set of questionnaires and to administer a series of tests to school children in selected age groups, in order to learn more about native values and preferences with regard to different occupations and ways of life. One of the primary objectives of research was to discover how native people responded to the opportunities provided and to the restrictions imposed by the white-dominated social milieu. It was too early as yet to report general findings.

III. DISCUSSION OF FUTURE PLANNING NEEDS

26. Mr. Kerr pointed out that the purpose of the Mackenzie Delta Research Project was to produce findings which could be significant for future planning and policy formation. A number of problem areas which had been touched upon required further consideration in the hope of finding practical solutions, and of determining possible future research needs. It was clear that a central problem in the Delta had to do with the socialization of native peoples to an increasingly urbanized way of life. Whether or not they made effective adjustments depended in no small measure on the direction of change in their value system, and on the values and behaviour they encountered in the white transient population. Therefore, a discussion of future planning needs might profitably begin with a consideration of the importance of white behavioural models, and of the qualities to be sought when recruiting southerners for northern service.

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28. Mr. F.J. Neville agreed with Dr. Lubart that Eskimos needed a sense of personal security, and that officials should recognize this.

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31. Mr. S. Hancock thought that the qualities most needed in officials dealing with native peoples were frankness and personal integrity.

32. Mr. R.J. Green thought such qualities were necessary in working with people anywhere, and those who demonstrated these qualities in other settings probably would do well among the native peoples of northern Canada.

33. Dr. Lubart said some personality types could be harmful in a northern context. These types were not always easily identified. By way of example, he mentioned the "romantic" who used the native person in order to fulfil his own psychological need for others to be dependent upon him, thus bolstering his own ego.

34. Mr. Wolforth suggested that certain educational institutions might be asked to provide appropriate training and orientation for civil servants and others who were being posted to the north.

35. Mr. Simpson said at the present time both the University of Saskatchewan and the University of Alberta had courses for teachers who expected to be working with children of other cultures.

36. Mr. Maher said attempting to recruit "nice people" was not enough. Most Canadians were so conditioned by their culture that they could not understand or tolerate cultural values which differed from their own. Therefore, they needed some orientation before going into a cross-cultural situation, regardless of how admirable their personal qualities might be.

37. Mr. Kerr invited comments on the subject of behavioural models and their significance for socialization.

38. Mr. Ervin considered that whites in the north presented two basic models for native people to emulate. First was the model of the white construction worker; this reinforced many of the existing indulgence patterns, especially in drinking and sexual activity, which needed to be de-emphasized for effective adjustment. The second model was that of the administrator, or in native terms the "paper pusher". In fact, the administrator was not really a model at all, because he had so few points of contact with native people and was not in a position to transmit values or attitudes. A wider range of behavioural models was therefore needed in the north, to acquaint the native people with the various behaviour patterns which were acceptable in white society, but which they had little opportunity to observe.

39. Dr. Ellis noted that television was a possibility in the Delta in the fairly near future. He suggested television could provide a wide variety of behavioural models, and thought it could be a very influential medium in future.

40. Mr. Smith said that already other popular media were strongly influencing the values and behaviour of the Delta's young people, not always in desirable directions.

41. Dr. Lubart questioned the idea that commercial television would have beneficial effects in the Delta.

42. Dr. Lubart stressed the necessity of adequate parental behaviour models for inculcating values in small children. The unemployed or sporadically employed father made a very poor model, especially if this pattern was combined with permissive child rearing practices. Where there was an inconsistent work pattern, there was little opportunity for a child to internalize work discipline as a value. Boys in particular needed adequate parental models, and their absence could pose serious problems for the future.

43. Mr. Hancock said he had heard much criticism of the hostel system. However, if the home environment of children was commonly as inadequate as Dr. Lubart suggested, then perhaps the influences of the hostels on children were favourable by comparison.

44. Dr. Lubart observed that children who had lived on the land with their families did better in school than children who came from town families. The children from the land had been exposed to the model of an integrated and functioning family, which served to instill in the child the belief that work was a virtue. Thus the significance of the availability of work could not be understated.

45. Mr. Kerr thought it significant that Dr. Lubart, although a psychiatrist and not an economist, viewed economic considerations as central in the solution of pressing human problems in the Delta. It seemed that the starting point for other change must be the provision of employment to local people, and that employment and not production should be the prime objective of any plan for industrial development.

46. Mr. Green thought that if this approach were adopted as policy, a limit would have to be established beyond which purely economic considerations would have to prevail.

47. Mr. Kerr asked if it would be feasible to make an estimate of the future costs of failing to provide jobs.

48. Mr. Green thought this would be feasible as a research project.

49. Miss McBain suggested that such a study could compare the future costs of training people for jobs, with the probable costs of keeping these same people on relief.

50. Mr. Hyslop agreed that such a study could be very useful to the administration.

51. Mr. Anders said that any development plan should have three objectives: more employment, better living standards, and greater exploitation of renewable resources. This constellation of aims raised the question of the extent to which the population should be dispersed or concentrated. It challenged planners to consider how resource exploitation needs could be accommodated in town planning.

52. Dr. Ellis suggested that one way to approach this problem might be a study to determine which people should be encouraged to stay on the land, and which should be encouraged to enter wage employment. He was making this suggestion on the assumption that there were ways to identify those characteristics needed to perform different kinds of jobs in different settings.

53. Mr. Wolforth said that while a great deal of criticism was levelled at Inuvik, it was nevertheless true that the town had created much wage employment. In the past, critics had overstressed the lack of an economic base for the town. In fact, the administrative function provided an economic base in itself, as it did in Ottawa. The difficulty in the north was that government provided the economic base for too many areas. Employment for native people should be stable, should provide opportunities for upward mobility, and should provide training in skills usable outside the north.

54. Mr. Hancock suggested that job satisfaction would be low if employees knew that their local industry was less productive or less efficient than known alternatives for supplying the same market.

55. Mr. Wolforth said that if the differential between costs of local and outside production was too great, some dissatisfaction might result, but even this was open to question. In choosing an industry intended initially to create employment, planners should be guided in part by the prospects for future economic viability. There would be an element of risk not unlike that involved in the building of development roads, with the prospect but not the guarantee of an economic payoff.

56. Mr. Carpenter thought that the Government had felt guilty over its treatment of Indians in the past, and was seeking to compensate by being overly generous toward the Eskimos. He favoured an approach to industrial development which stressed the need for economic viability, rather than an approach which gave overriding consideration to creating jobs, without regard to productivity.

57. Mr. Neville wondered if full advantage was being taken of opportunities to employ native peoples in government positions.

58. Mr. Hunt suggested that initially, the government should be prepared to accept a lower standard of efficiency in order to employ local people in administrative jobs.

59. Mr. Hyslop said it was the aim of the Department to fill 75% of all positions in the north with northerners by 1971. Efforts were also being made to persuade other government departments and private companies to set the same objective.

60. Mr. Kerr referred back to the point made earlier by Dr. Lubart, that without the model of a working father, children might not be motivated to work as adults. He asked if the government could afford not to provide work at subsidized cost, in view of what the lack of jobs seemed to be doing to the

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people now. Already there were a number of well planned training programs, but perhaps because of influences in the home environment, young people lacked motivation to accept training. He questioned the advisability of letting people go jobless now if it was hoped to have people available for jobs in the future.

61. Mr. Green expressed the opinion that when opportunity came, seemingly dependent people would rise to the occasion.

62. Mr. Anders agreed that compared with the problem of motivation, the task of teaching vocational skills was minor.

63. Mr. Hancock said that many Eskimos and Indians in the north seemed to have the attitude that they were doing the Department a favour by accepting employment. He agreed that there was a serious lack of motivation.

64. Mr. Smith said the fundamental problem was a basic difference between the values of native groups on the one hand, and of the white middle class on the other. However, he did not know how it was possible to inculcate values in another cultural group.

65. Mr. Kerr thanked those present for their participation. The conference had provided an opportunity for discussion and exchange of ideas, and had indicated some areas in which future research might be conducted. Hopefully, it had also highlighted certain problems requiring consideration by administrators and planners engaged in all aspects of northern development.

G.F. Parsons,
Recording Secretary.

January, 1967
Department of Indian Affairs and
Northern Development.



Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

Mr. C.M. Bolger,
Director, Northern Administration
Branch,
Dept. of Indian Affairs & Northern
Development,
Centennial Tower.

Ottawa 4, 1 March, 1967.

Handwritten: 03.67

our file/notre dossier
your file/votre dossier
date

Handwritten signature: M. A. I.

North Admin B.
Ottawa, Ont.
8807
MAR 2 1967
File No. 1009-376
Refer To Director

I enclose a copy of the Minutes of the Second Mackenzie Delta Research
Project Conference, held in Ottawa on December 6.
May I take this opportunity to thank you for your participation in the
Conference.

Yours sincerely,

Handwritten signature: A. J. Kerr

A. J. Kerr,
Northern Co-ordination and
Research Centre.



SECOND MACKENZIE DELTA RESEARCH PROJECT CONFERENCE

The second Mackenzie Delta Research Project Conference was held on December 6, 1966, in the Centennial Tower, Ottawa. The Conference, called to discuss preliminary reports of field work undertaken during the summer of 1966 as well as future planning needs, was attended by members of the research team, and by other scientists and administrators with special interest in the Project.

PRESENT:

Mr. A.J. Kerr (Chairman)
Northern Co-ordination and Research Centre,
Department of Indian Affairs and Northern Development

Mr. C. Aasen
Faculty of Engineering
University of Waterloo

Mr. G. Angers
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. D. Bissett
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. C.M. Bolger
Director, Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. Noah Carpenter
Student, University of Manitoba

Dr. P.F. Cooper
Peabody Museum
Salem, Massachusetts

Mr. J. Cox
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Dr. J.B. Ellis
Faculty of Engineering
University of Waterloo

Mr. A.M. Ervin
Department of Anthropology
University of Illinois

Mr. R.J. Green
Education Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

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- Mr. S. Hancock
Inuvik Regional Administrator
Department of Indian Affairs and Northern Development
- Mr. R. Helbeque
Indian Affairs Branch
Department of Indian Affairs and Northern Development
- Mr. R.M. Hill
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development
- Mr. S.M. Hodgson
Deputy Commissioner of the Northwest Territories
- Dr. J.J. Honigmann
Institute for Research in Social Science
University of North Carolina
- Mr. L.A.C.O. Hunt
Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. C.T. Hyslop
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Dr. Joseph Lubart
College of Physicians and Surgeons
Columbia University
- Mr. J. Maher
Principal, Inuvik School
Department of Indian Affairs and Northern Development
- Miss S. McBain
Resource and Economic Development Group
Department of Indian Affairs and Northern Development
- Mr. F.J. Neville
Welfare Division
Northern Affairs Branch
Department of Indian Affairs and Northern Development
- Dr. N.S. Novakowski
Canadian Wildlife Service
Department of Indian Affairs and Northern Development
- Mr. G.W. Rowley
Secretary, Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. D.W. Simpson
Education Division
Department of Indian Affairs and Northern Development
- Mr. W. Slipchenko
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

- 3 -

Mr. D. Smith
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

Mr. K.W. Stairs
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. E. Weick
Resource and Economic Development Group
Department of Indian Affairs and Northern Development

Mr. J. Wolforth
Department of Geography
University of British Columbia

Mr. W. Wright
Faculty of Engineering
University of Waterloo

Mr. G.F. Parsons
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern
Development.

(Recording Secretary)

INTRODUCTORY REMARKS

1. Mr. A.J. Kerr explained that the Mackenzie Delta Research Project was a multi-discipline program, being carried out in three stages by the Northern Co-ordination and Research Centre. The first stage had been completed in 1965 when preliminary studies were made and certain key problem areas identified. The second stage, undertaken in the summer of 1966 and designed to explore these problem areas in greater depth, involved a team of specialists in economic geography, community planning, anthropology and psychiatry. While most of the field work of the second stage was completed, one anthropologist would continue his current research until the autumn of 1967. The purpose of the present conference was to hear and discuss preliminary reports from the field workers, to seek recommendations for further research, and generally to provide a forum for the exchange of ideas between researchers and administrators.

II. PRESENTATION AND DISCUSSION OF REPORTS

2. Mr. Kerr regretted that it had been impossible to circulate in advance of the conference copies of the reports which would now be presented. Most of the scientists had completed their field work so recently that there had not been time to prepare and distribute formal papers. He called on the researchers to present their reports, and invited the other participants to comment and ask questions after each presentation.

(a) Economic Prospects of the Mackenzie Delta -

by John Wolforth

3. Mr. J. Wolforth said that in the course of his research in the summer of 1966 he had focused his attention on processes of economic change. There were prospects for the exploitation of oil and gas resources in the Mackenzie Delta, but his studies had led him to the conclusion that such developments were unlikely to have much effect on the local economy apart from providing territorial revenues. There was little chance that oil or gas exploitation would provide large scale employment opportunities for the local labour force. Future local employment possibilities rested rather on using the known renewable resources of the area.

There had appeared to be good possibilities for the establishment of an integrated fur products industry in the Delta, designed to meet the production and marketing needs of both primary producers and fur processors. The present Aklavik tannery operation might have formed a nucleus for establishing such an industry, but in spite of its promising beginnings the tannery now appeared to be in difficulties. In spite of these practical problems, a fur products industry did appear to fulfil certain important requirements which any secondary industry in the Delta must meet. These requirements included labour intensiveness, low energy consumption, and a finished product which had high money value and was light to transport to markets.

There was also potential for a forest products industry. Plans had been proceeding in this direction, but a debate had developed over the proposed location of a sawmill. One suggestion had been to place the sawmill at the timber site on the Arctic Red River, while a counter-suggestion was to locate the mill at Aklavik, close to the people who might benefit most from new employment opportunities. If the purpose of establishing a sawmill was to provide jobs, then it should be located so as to provide maximum benefit to the local inhabitants.

A development program for the Delta must take into account the differing economic needs of different local groups. Older people who wished to follow the more traditional way of life should be helped with the means to do so, while local wage employment should be made available for people in the middle-age group, in government service jobs, and in fur and forest products industries. Such jobs should provide opportunities for training and advancement. The generation presently at school should at least be given the choice of emigrating to southern Canada if they wished. This involved preparing them for adjustment to life in the south, which might be accomplished in part by conducting some of the educational program in schools outside the north.

4. Dr. J.B. Ellis suggested there was a need for more information on the proportions of native people who wished to remain in the north, who wished to continue in traditional economic pursuits, and who wished to migrate to southern Canada. It seemed possible that a review of studies already conducted might provide some information in this regard.

5. Dr. J. Lubart said it was a mistake to think that all Eskimos who might be assisted to relocate in southern Canada should be placed initially in middle-class or white-collar positions. There was no reason why they could not, like other "immigrants", take un-skilled jobs at the start, and be given an opportunity to work their way into higher socio-economic levels. Socio-economic mobility was a major feature of southern Canadian life in which native peoples should be given the opportunity, and indeed be encouraged, to participate.

6. Mr. N. Carpenter said that, speaking as an Eskimo resident of the Delta, he agreed with Dr. Lubart.

(b) A Report on Anthropological Field Work -

by A.M. Ervin

7. Mr. A.M. Ervin explained that his assignment had been to explore significant sub-groupings in the Delta population, as a follow-up to a preliminary study conducted by Miss J. Mailhot in the summer of 1965. During his research, Mr. Ervin had considered such factors as ethnicity, styles of life, age and sex groupings, community organization, social stratification, and formal organizations. He had found that in general, social groupings in the Delta were not as strongly defined on the basis of ethnicity as has been reported for other northern areas. Instead, a growing basis of distinction was that of "northerner" versus "southerner", or of the long-time resident of the Delta versus the transient from the provinces. Included among those who identified themselves and were identified as northerners were Indians, Eskimos, Metis, white trappers, entrepreneurs and a few civil servants. In general, these people tended to view the southerners as opportunistic intruders. While ethnic differences remained, they were becoming less important as bases of social distinction.

In Inuvik many native people lacked the education and experience for successful adjustment to town life. Many in the younger generation were growing up in a "welfare culture", and there was a confusion of goals, and lack of any strong sense of identity. Heavy drinking seemed most importantly an expression of psychological depression and economic frustration. Native leadership was weak, and most of the voluntary associations were dominated by transient whites. Many of the younger people were ashamed of their native origins, and a growing number

had become "marginal men" caught between two cultures. Of all the age and sex groupings considered, the young girls appeared to be most acculturated. They placed a high value on town life, and many were rejecting native males and aspiring to marry white men. This led to sexual exploitation by transient white workers, and to attendant social problems.

8. Mr. G. Anders said he was struck by the many parallels between problems and behaviour patterns in Inuvik and in many of the older northern mining communities, and suggested that it might be useful to explore the implications of this parallelism.

9. Mr. R.M. Hill observed that while Inuvik did have social problems, conditions in the town were not all bad. He suggested that further analysis and quantification of data would perhaps serve to bring about a somewhat different perspective on Inuvik.

10. Mr. Wolforth pointed out that the focus of a scientist's attention might well be on pathological factors in a community, and if so these would tend to be emphasized in his report.

11. Dr. J. Lubart said it was his observation that there was even greater social pathology at Inuvik than Mr. Ervin's data had suggested. He added that it was better to over-emphasize the pathology than to ignore it.

(c) A Study Mental Health of Native People in the Delta -

by Dr. J. Lubart

12. Mr. Kerr explained that Dr. Lubart had been concerned with gathering material pertaining to the mental health of the native population, with a view to gaining insights into the causes and effects of psychological stress in a situation of rapid social change. For several reasons, Dr. Lubart had found it necessary to focus attention on the local Eskimo population.

13. Dr. Lubart described his research methods as including participant observation, intensive interviews with selected native people, and analysis of material in police and court records. He questioned the notion that all problems of individual adaptation to social change could be adequately dealt with in quantifiable terms. He summarized a number of values, attitudes, and institutionalized practices which had served socially integrative and psychologically adaptive functions in traditional Eskimo society, but which might be disintegrative or non-adaptive in an urban milieu. These included patterns of sharing, child adoption, permissive child rearing, suppression of rage and overbearing activity, emphasis on shame rather than guilt as a mechanism of social control, and emphasis on equality among adult males and of dominance over females.

It could be hypothesized that in the past, factors in the social and physical environment had contributed to a certain restriction in the range of imaginative and creative thought. New social conditions were permitting women to overcome their traditional inferior status, and women were expressing their resentment of that status by rejecting Eskimo men and aspiring to unions with white men. The Eskimo female aspired to be like the white female, and might seek self-validation

through bearing a white child. Many males were faced with a tremendous sense of failure. They had lost their sense of usefulness and of pride. Unable to compete economically and socially with the white man, and faced with rejection by their women, the Eskimo men often experienced serious psychological disturbance, and tried to curb their anxieties and to enhance their unfavourable self-images by excessive use of alcohol.

Dr. Lubart expressed concern regarding the attitudes of many transient whites toward the local native people. These attitudes ranged from fear and contempt to good-natured indifference; the ethnic stereotypes associated with either of these extremes could contribute to the establishment of a caste system. Dr. Lubart stressed the need for a study of the factors influencing the psychological development of pre-school Eskimo children, with particular emphasis on factors which might stimulate or inhibit the capacity for creative thought. It was his impression that creative activity in children was restricted largely to the making of objects, and that there was relatively little other creative activity of a more imaginative or "philosophical" kind.

14. Mr. Maher endorsed Dr. Lubart's suggestion for a study by a child psychologist.

(d) Functional Evaluation of the Inuvik Settlement Plan -

by C. Aasen and W. Wright

15. Mr. Kerr said that the study by Messrs. Aasen and Wright had been aimed at developing a method for town planning which might have applicability not only in the Mackenzie Delta, but more widely in northern Canada. Because of the large amount of relevant data available for the area the Delta offered special opportunities for developing a methodology.

16. Mr. C. Aasen said that in developing a conceptual framework for planning, he and Mr. Wright were attempting to take into account as many as possible of the variables in the physical and social environment which might be significant for community planning. This was being done with the help of specialists in other disciplines who were participating in the Mackenzie Delta Research Project.

17. Mr. W. Wright said that on the basis of data gathered in the field and using computer techniques, nearly one hundred variables had been subjected to factor analysis, with the object of establishing, if only tentatively, significant relationships between them. This analysis had made it possible to prepare several charts and maps showing graphically the relationships between several empirically identified variables and clusters of variables. Results had been quite promising so far, although further analysis had yet to be done.

18. Mr. J. Cox said he was pleased with the progress made in the study, and thought that the method promised to be useful for community planning in the north. Many problems had to be faced in this field, including the alleviation of overcrowding, and the discovery of alternatives to the "sub-division" type of development, in current use. The physical form of a settlement had a special impact on the way of life of its people, and it was not realistic to separate settlement planning from community development planning.

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36. Mr. Maher said attempting to recruit "nice people" was not enough. Most Canadians were so conditioned by their culture that they could not understand or tolerate cultural values which differed from their own. Therefore, they needed some orientation before going into a cross-cultural situation, regardless of how admirable their personal qualities might be.

37. Mr. Kerr invited comments on the subject of behavioural models and their significance for socialization.

38. Mr. Ervin considered that whites in the north presented two basic models for native people to emulate. First was the model of the white construction worker; this reinforced many of the existing indulgence patterns, especially in drinking and sexual activity, which needed to be de-emphasized for effective adjustment. The second model was that of the administrator, or in native terms the "paper pusher". In fact, the administrator was not really a model at all, because he had so few points of contact with native people and was not in a position to transmit values or attitudes. A wider range of behavioural models was therefore needed in the north, to acquaint the native people with the various behaviour patterns which were acceptable in white society, but which they had little opportunity to observe.

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44. Dr. Lubart observed that children who had lived on the land with their families did better in school than children who came from town families. The children from the land had been exposed to the model of an integrated and functioning family, which served to instill in the child the belief that work was a virtue. Thus the significance of the availability of work could not be understated.

45. Mr. Kerr thought it significant that Dr. Lubart, although a psychiatrist and not an economist, viewed economic considerations as central in the solution of pressing human problems in the Delta. It seemed that the starting point for other change must be the provision of employment to local people, and that employment and not production should be the prime objective of any plan for industrial development.

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52. Dr. Ellis suggested that one way to approach this problem might be a study to determine which people should be encouraged to stay on the land, and which should be encouraged to enter wage employment. He was making this suggestion on the assumption that there were ways to identify those characteristics needed to perform different kinds of jobs in different settings.

53. Mr. Wolforth said that while a great deal of criticism was levelled at Inuvik, it was nevertheless true that the town had created much wage employment. In the past, critics had overstressed the lack of an economic base for the town. In fact, the administrative function provided an economic base in itself, as it did in Ottawa. The difficulty in the north was that government provided the economic base for too many areas. Employment for native people should be stable, should provide opportunities for upward mobility, and should provide training in skills usable outside the north.

54. Mr. Hancock suggested that job satisfaction would be low if employees knew that their local industry was less productive or less efficient than known alternatives for supplying the same market.

55. Mr. Wolforth said that if the differential between costs of local and outside production was too great, some dissatisfaction might result, but even this was open to question. In choosing an industry intended initially to create employment, planners should be guided in part by the prospects for future economic viability. There would be an element of risk not unlike that involved in the building of development roads, with the prospect but not the guarantee of an economic payoff.

56. Mr. Carpenter thought that the Government had felt guilty over its treatment of Indians in the past, and was seeking to compensate by being overly generous toward the Eskimos. He favoured an approach to industrial development which stressed the need for economic viability, rather than an approach which gave overriding consideration to creating jobs, without regard to productivity.

57. Mr. Neville wondered if full advantage was being taken of opportunities to employ native peoples in government positions.

58. Mr. Hunt suggested that initially, the government should be prepared to accept a lower standard of efficiency in order to employ local people in administrative jobs.

59. Mr. Hyslop said it was the aim of the Department to fill 75% of all positions in the north with northerners by 1971. Efforts were also being made to persuade other government departments and private companies to set the same objective.

60. Mr. Kerr referred back to the point made earlier by Dr. Lubart, that without the model of a working father, children might not be motivated to work as adults. He asked if the government could afford not to provide work at subsidized cost, in view of what the lack of jobs seemed to be doing to the

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people now. Already there were a number of well planned training programs, but perhaps because of influences in the home environment, young people lacked motivation to accept training. He questioned the advisability of letting people go jobless now if it was hoped to have people available for jobs in the future.

61. Mr. Green expressed the opinion that when opportunity came, seemingly dependent people would rise to the occasion.

62. Mr. Anders agreed that compared with the problem of motivation, the task of teaching vocational skills was minor.

63. Mr. Hancock said that many Eskimos and Indians in the north seemed to have the attitude that they were doing the Department a favour by accepting employment. He agreed that there was a serious lack of motivation.

64. Mr. Smith said the fundamental problem was a basic difference between the values of native groups on the one hand, and of the white middle class on the other. However, he did not know how it was possible to inculcate values in another cultural group.

65. Mr. Kerr thanked those present for their participation. The conference had provided an opportunity for discussion and exchange of ideas, and had indicated some areas in which future research might be conducted. Hopefully, it had also highlighted certain problems requiring consideration by administrators and planners engaged in all aspects of northern development.

G.F. Parsons,
Recording Secretary.

January, 1967
Department of Indian Affairs and
Northern Development.



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Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

Mr. D. W. Simpson,
Chief, Education Division.

Ottawa 4, 1 March, 1967. *X*

our file/notre dossier
your file/votre dossier
date

North Admin Br. Ottawa, Ont.
MAR 2 1967
File No. <i>1009-3-16</i>
Refer To: <i>(E.)</i>

I enclose a copy of the Minutes of the Second Mackenzie Delta Research
Project Conference, held in Ottawa on December 6.

May I take this opportunity to thank you for your participation in the
Conference.

Yours sincerely,

A. J. Kerr,
Northern Co-ordination and
Research Centre.

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SECOND MACKENZIE DELTA RESEARCH PROJECT CONFERENCE

The second Mackenzie Delta Research Project Conference was held on December 6, 1966, in the Centennial Tower, Ottawa. The Conference, called to discuss preliminary reports of field work undertaken during the summer of 1966 as well as future planning needs, was attended by members of the research team, and by other scientists and administrators with special interest in the Project.

PRESENT:

Mr. A.J. Kerr (Chairman)
Northern Co-ordination and Research Centre,
Department of Indian Affairs and Northern Development

Mr. C. Aasen
Faculty of Engineering
University of Waterloo

Mr. G. Angers
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. D. Bissett
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. C.M. Bolger
Director, Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. Noah Carpenter
Student, University of Manitoba

Dr. P.F. Cooper
Peabody Museum
Salem, Massachusetts

Mr. J. Cox
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Dr. J.B. Ellis
Faculty of Engineering
University of Waterloo

Mr. A.M. Ervin
Department of Anthropology
University of Illinois

Mr. R.J. Green
Education Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

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- Mr. S. Hancock
Inuvik Regional Administrator
Department of Indian Affairs and Northern Development
- Mr. R. Helbeque
Indian Affairs Branch
Department of Indian Affairs and Northern Development
- Mr. R.M. Hill
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development
- Mr. S.M. Hodgson
Deputy Commissioner of the Northwest Territories
- Dr. J.J. Honigmann
Institute for Research in Social Science
University of North Carolina
- Mr. L.A.C.O. Hunt
Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. C.T. Hyslop
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Dr. Joseph Lubart
College of Physicians and Surgeons
Columbia University
- Mr. J. Maher
Principal, Inuvik School
Department of Indian Affairs and Northern Development
- Miss S. McBain
Resource and Economic Development Group
Department of Indian Affairs and Northern Development
- Mr. F.J. Neville
Welfare Division
Northern Affairs Branch
Department of Indian Affairs and Northern Development
- Dr. N.S. Novakowski
Canadian Wildlife Service
Department of Indian Affairs and Northern Development
- Mr. G.W. Rowley
Secretary, Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. D.W. Simpson
Education Division
Department of Indian Affairs and Northern Development
- Mr. W. Slipchenko
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

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Mr. D. Smith
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

Mr. K.W. Stairs
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. E. Weick
Resource and Economic Development Group
Department of Indian Affairs and Northern Development

Mr. J. Wolforth
Department of Geography
University of British Columbia

Mr. W. Wright
Faculty of Engineering
University of Waterloo

Mr. G.F. Parsons
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern
Development.

(Recording Secretary)

I. INTRODUCTORY REMARKS

1. Mr. A.J. Kerr explained that the Mackenzie Delta Research Project was a multi-discipline program, being carried out in three stages by the Northern Co-ordination and Research Centre. The first stage had been completed in 1965 when preliminary studies were made and certain key problem areas identified. The second stage, undertaken in the summer of 1966 and designed to explore these problem areas in greater depth, involved a team of specialists in economic geography, community planning, anthropology and psychiatry. While most of the field work of the second stage was completed, one anthropologist would continue his current research until the autumn of 1967. The purpose of the present conference was to hear and discuss preliminary reports from the field workers, to seek recommendations for further research, and generally to provide a forum for the exchange of ideas between researchers and administrators.

II. PRESENTATION AND DISCUSSION OF REPORTS

2. Mr. Kerr regretted that it had been impossible to circulate in advance of the conference copies of the reports which would now be presented. Most of the scientists had completed their field work so recently that there had not been time to prepare and distribute formal papers. He called on the researchers to present their reports, and invited the other participants to comment and ask questions after each presentation.

(a) Economic Prospects of the Mackenzie Delta -

by John Wolforth

3. Mr. J. Wolforth said that in the course of his research in the summer of 1966 he had focused his attention on processes of economic change. There were prospects for the exploitation of oil and gas resources in the Mackenzie Delta, but his studies had led him to the conclusion that such developments were unlikely to have much effect on the local economy apart from providing territorial revenues. There was little chance that oil or gas exploitation would provide large scale employment opportunities for the local labour force. Future local employment possibilities rested rather on using the known renewable resources of the area.

There had appeared to be good possibilities for the establishment of an integrated fur products industry in the Delta, designed to meet the production and marketing needs of both primary producers and fur processors. The present Aklavik tannery operation might have formed a nucleus for establishing such an industry, but in spite of its promising beginnings the tannery now appeared to be in difficulties. In spite of these practical problems, a fur products industry did appear to fulfil certain important requirements which any secondary industry in the Delta must meet. These requirements included labour intensiveness, low energy consumption, and a finished product which had high money value and was light to transport to markets.

There was also potential for a forest products industry. Plans had been proceeding in this direction, but a debate had developed over the proposed location of a sawmill. One suggestion had been to place the sawmill at the timber site on the Arctic Red River, while a counter-suggestion was to locate the mill at Aklavik, close to the people who might benefit most from new employment opportunities. If the purpose of establishing a sawmill was to provide jobs, then it should be located so as to provide maximum benefit to the local inhabitants.

A development program for the Delta must take into account the differing economic needs of different local groups. Older people who wished to follow the more traditional way of life should be helped with the means to do so, while local wage employment should be made available for people in the middle-age group, in government service jobs, and in fur and forest products industries. Such jobs should provide opportunities for training and advancement. The generation presently at school should at least be given the choice of emigrating to southern Canada if they wished. This involved preparing them for adjustment to life in the south, which might be accomplished in part by conducting some of the educational program in schools outside the north.

4. Dr. J.B. Ellis suggested there was a need for more information on the proportions of native people who wished to remain in the north, who wished to continue in traditional economic pursuits, and who wished to migrate to southern Canada. It seemed possible that a review of studies already conducted might provide some information in this regard.

5. Dr. J. Lubart said it was a mistake to think that all Eskimos who might be assisted to relocate in southern Canada should be placed initially in middle-class or white-collar positions. There was no reason why they could not, like other "immigrants", take un-skilled jobs at the start, and be given an opportunity to work their way into higher socio-economic levels. Socio-economic mobility was a major feature of southern Canadian life in which native peoples should be given the opportunity, and indeed be encouraged, to participate.

6. Mr. N. Carpenter said that, speaking as an Eskimo resident of the Delta, he agreed with Dr. Lubart.

(b) A Report on Anthropological Field Work -

by A.M. Ervin

7. Mr. A.M. Ervin explained that his assignment had been to explore significant sub-groupings in the Delta population, as a follow-up to a preliminary study conducted by Miss J. Mailhot in the summer of 1965. During his research, Mr. Ervin had considered such factors as ethnicity, styles of life, age and sex groupings, community organization, social stratification, and formal organizations. He had found that in general, social groupings in the Delta were not as strongly defined on the basis of ethnicity as has been reported for other northern areas. Instead, a growing basis of distinction was that of "northerner" versus "southerner", or of the long-time resident of the Delta versus the transient from the provinces. Included among those who identified themselves and were identified as northerners were Indians, Eskimos, Metis, white trappers, entrepreneurs and a few civil servants. In general, these people tended to view the southerners as opportunistic intruders. While ethnic differences remained, they were becoming less important as bases of social distinction.

In Inuvik many native people lacked the education and experience for successful adjustment to town life. Many in the younger generation were growing up in a "welfare culture", and there was a confusion of goals, and lack of any strong sense of identity. Heavy drinking seemed most importantly an expression of psychological depression and economic frustration. Native leadership was weak, and most of the voluntary associations were dominated by transient whites. Many of the younger people were ashamed of their native origins, and a growing number

had become "marginal men" caught between two cultures. Of all the age and sex groupings considered, the young girls appeared to be most acculturated. They placed a high value on town life, and many were rejecting native males and aspiring to marry white men. This led to sexual exploitation by transient white workers, and to attendant social problems.

8. Mr. G. Anders said he was struck by the many parallels between problems and behaviour patterns in Inuvik and in many of the older northern mining communities, and suggested that it might be useful to explore the implications of this parallelism.

9. Mr. R.M. Hill observed that while Inuvik did have social problems, conditions in the town were not all bad. He suggested that further analysis and quantification of data would perhaps serve to bring about a somewhat different perspective on Inuvik.

10. Mr. Wolforth pointed out that the focus of a scientist's attention might well be on pathological factors in a community, and if so these would tend to be emphasized in his report.

11. Dr. J. Lubart said it was his observation that there was even greater social pathology at Inuvik than Mr. Ervin's data had suggested. He added that it was better to over-emphasize the pathology than to ignore it.

(c) A Study Mental Health of Native People in the Delta -

by Dr. J. Lubart

12. Mr. Kerr explained that Dr. Lubart had been concerned with gathering material pertaining to the mental health of the native population, with a view to gaining insights into the causes and effects of psychological stress in a situation of rapid social change. For several reasons, Dr. Lubart had found it necessary to focus attention on the local Eskimo population.

13. Dr. Lubart described his research methods as including participant observation, intensive interviews with selected native people, and analysis of material in police and court records. He questioned the notion that all problems of individual adaptation to social change could be adequately dealt with in quantifiable terms. He summarized a number of values, attitudes, and institutionalized practices which had served socially integrative and psychologically adaptive functions in traditional Eskimo society, but which might be disintegrative or non-adaptive in an urban milieu. These included patterns of sharing, child adoption, permissive child rearing, suppression of rage and overbearing activity, emphasis on shame rather than guilt as a mechanism of social control, and emphasis on equality among adult males and of dominance over females.

It could be hypothesized that in the past, factors in the social and physical environment had contributed to a certain restriction in the range of imaginative and creative thought. New social conditions were permitting women to overcome their traditional inferior status, and women were expressing their resentment of that status by rejecting Eskimo men and aspiring to unions with white men. The Eskimo female aspired to be like the white female, and might seek self-validation

through bearing a white child. Many males were faced with a tremendous sense of failure. They had lost their sense of usefulness and of pride. Unable to compete economically and socially with the white man, and faced with rejection by their women, the Eskimo men often experienced serious psychological disturbance, and tried to curb their anxieties and to enhance their unfavourable self-images by excessive use of alcohol.

Dr. Lubart expressed concern regarding the attitudes of many transient whites toward the local native people. These attitudes ranged from fear and contempt to good-natured indifference; the ethnic stereotypes associated with either of these extremes could contribute to the establishment of a caste system. Dr. Lubart stressed the need for a study of the factors influencing the psychological development of pre-school Eskimo children, with particular emphasis on factors which might stimulate or inhibit the capacity for creative thought. It was his impression that creative activity in children was restricted largely to the making of objects, and that there was relatively little other creative activity of a more imaginative or "philosophical" kind.

14. Mr. Maher endorsed Dr. Lubart's suggestion for a study by a child psychologist.

(d) Functional Evaluation of the Inuvik Settlement Plan -

by C. Aasen and W. Wright

15. Mr. Kerr said that the study by Messrs. Aasen and Wright had been aimed at developing a method for town planning which might have applicability not only in the Mackenzie Delta, but more widely in northern Canada. Because of the large amount of relevant data available for the area the Delta offered special opportunities for developing a methodology.

16. Mr. C. Aasen said that in developing a conceptual framework for planning, he and Mr. Wright were attempting to take into account as many as possible of the variables in the physical and social environment which might be significant for community planning. This was being done with the help of specialists in other disciplines who were participating in the Mackenzie Delta Research Project.

17. Mr. W. Wright said that on the basis of data gathered in the field and using computer techniques, nearly one hundred variables had been subjected to factor analysis, with the object of establishing, if only tentatively, significant relationships between them. This analysis had made it possible to prepare several charts and maps showing graphically the relationships between several empirically identified variables and clusters of variables. Results had been quite promising so far, although further analysis had yet to be done.

18. Mr. J. Cox said he was pleased with the progress made in the study, and thought that the method promised to be useful for community planning in the north. Many problems had to be faced in this field, including the alleviation of overcrowding, and the discovery of alternatives to the "sub-division" type of development, in current use. The physical form of a settlement had a special impact on the way of life of its people, and it was not realistic to separate settlement planning from community development planning.

19. Mr. Anders observed that the social health of an unplanned community was sometimes better than that of a planned community, and therefore it was not entirely facetious to ask if provision should be made in northern settlement planning for slums. It was a known fact that people of similar backgrounds and socio-economic status tended to live together in their own residential areas, apart from people possessing unlike social characteristics. The mingling of unlike types in a single residential area had been attempted in planned communities in the past, but the various groups had not interacted and serious tensions had developed, which were only reduced when people were allowed to form their own residential groupings. It seemed necessary to provide a physical area for the failures, and for those who could not compete in the mainstream of community life.

20. Mr. Cox thought that the planning method under consideration was capable of coping with the problem Mr. Anders had raised.

21. Mr. Wright agreed that provision for dealing with this problem was within the scope of the method.

22. Mr. Carpenter asked if community planners made a practice of determining the opinions and needs of local people. He said that when Inuvik was being planned, the people of Aklavik were not consulted regarding their willingness to move to the new town. Similarly at Tuktoyaktuk, a new housing development had been provided, but the people had chosen not to move out of their old houses. It seemed that the assessing of local views was an essential preliminary to implementing such changes.

23. Mr. Cox said that attempts had been made recently to hold public meetings in some areas to obtain local views, but with indifferent success. He agreed with Mr. Carpenter that opinion surveys were needed, but staff had not been available in the past.

(e) Field Work in Progress -

24. Mr. Kerr invited Mr. D.G. Smith to describe the general nature of the research he was conducting at the present time in the Delta.

25. Mr. Smith said that his current work was an extension of a preliminary study undertaken in the summer of 1965. He expected that his present period of field work would extend over one year, during which time he hoped to develop an ethnography of the Mackenzie Delta. He would examine in some depth the attitudes and values underlying the Delta's social structure. As one technique to study this, he planned to formulate a set of questionnaires and to administer a series of tests to school children in selected age groups, in order to learn more about native values and preferences with regard to different occupations and ways of life. One of the primary objectives of research was to discover how native people responded to the opportunities provided and to the restrictions imposed by the white-dominated social milieu. It was too early as yet to report general findings.

III. DISCUSSION OF FUTURE PLANNING NEEDS

26. Mr. Kerr pointed out that the purpose of the Mackenzie Delta Research Project was to produce findings which could be significant for future planning and policy formation. A number of problem areas which had been touched upon required further consideration in the hope of finding practical solutions, and of determining possible future research needs. It was clear that a central problem in the Delta had to do with the socialization of native peoples to an increasingly urbanized way of life. Whether or not they made effective adjustments depended in no small measure on the direction of change in their value system, and on the values and behaviour they encountered in the white transient population. Therefore, a discussion of future planning needs might profitably begin with a consideration of the importance of white behavioural models, and of the qualities to be sought when recruiting southerners for northern service.

27. Dr. Lubart said that a fairly common element in Eskimo personality seemed to be a wish for a parent figure. Eskimos could show fairly strong dependency orientations and a need for affective relationships. People responsible for helping them should be paternalistic, but not authoritarian.

28. Mr. F.J. Neville agreed with Dr. Lubart that Eskimos needed a sense of personal security, and that officials should recognize this.

29. Mr. Smith said that Eskimos generally placed a high value on inter-personal relationships, and tended to react to the actions of officials in personal terms, failing to understand the impersonality and emotional neutrality which typified purely official decisions. Consequently, an Eskimo presented with an unfavourable official decision was likely to consider that he himself had been personally rejected. Similarly, an impersonal command might be interpreted as a personal criticism. There should be some way to systematically acquaint whites in the north with some of the central facts of Eskimo personality and cultural values, and the culturally determined behavioural cues which they employed to signify various emotional states. Associated with this kind of instruction might be some training in techniques for giving commands to native persons. Introduction of such an orientation and training course would be highly practical to the administration, since it would facilitate the avoidance of negative responses from the local people which interfered with the achievement of official objectives.

30. Mr. Kerr said it had been demonstrated that many kinds of people functioned effectively with Indians and Eskimos. However, it could be useful to isolate the common characteristics which these successful people shared.

31. Mr. S. Hancock thought that the qualities most needed in officials dealing with native peoples were frankness and personal integrity.

32. Mr. R.J. Green thought such qualities were necessary in working with people anywhere, and those who demonstrated these qualities in other settings probably would do well among the native peoples of northern Canada.

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55. Mr. Wolforth said that if the differential between costs of local and outside production was too great, some dissatisfaction might result, but even this was open to question. In choosing an industry intended initially to create employment, planners should be guided in part by the prospects for future economic viability. There would be an element of risk not unlike that involved in the building of development roads, with the prospect but not the guarantee of an economic payoff.

56. Mr. Carpenter thought that the Government had felt guilty over its treatment of Indians in the past, and was seeking to compensate by being overly generous toward the Eskimos. He favoured an approach to industrial development which stressed the need for economic viability, rather than an approach which gave overriding consideration to creating jobs, without regard to productivity.

57. Mr. Neville wondered if full advantage was being taken of opportunities to employ native peoples in government positions.

58. Mr. Hunt suggested that initially, the government should be prepared to accept a lower standard of efficiency in order to employ local people in administrative jobs.

59. Mr. Hyslop said it was the aim of the Department to fill 75% of all positions in the north with northerners by 1971. Efforts were also being made to persuade other government departments and private companies to set the same objective.

60. Mr. Kerr referred back to the point made earlier by Dr. Lubart, that without the model of a working father, children might not be motivated to work as adults. He asked if the government could afford not to provide work at subsidized cost, in view of what the lack of jobs seemed to be doing to the

- 10 -

people now. Already there were a number of well planned training programs, but perhaps because of influences in the home environment, young people lacked motivation to accept training. He questioned the advisability of letting people go jobless now if it was hoped to have people available for jobs in the future.

61. Mr. Green expressed the opinion that when opportunity came, seemingly dependent people would rise to the occasion.

62. Mr. Anders agreed that compared with the problem of motivation, the task of teaching vocational skills was minor.

63. Mr. Hancock said that many Eskimos and Indians in the north seemed to have the attitude that they were doing the Department a favour by accepting employment. He agreed that there was a serious lack of motivation.

64. Mr. Smith said the fundamental problem was a basic difference between the values of native groups on the one hand, and of the white middle class on the other. However, he did not know how it was possible to inculcate values in another cultural group.

65. Mr. Kerr thanked those present for their participation. The conference had provided an opportunity for discussion and exchange of ideas, and had indicated some areas in which future research might be conducted. Hopefully, it had also highlighted certain problems requiring consideration by administrators and planners engaged in all aspects of northern development.

G.F. Parsons,
Recording Secretary.

January, 1967
Department of Indian Affairs and
Northern Development.



Canada

PH

Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

Mr. C. T. Hyslop,
Assistant Director,
Northern Administration Branch.

Ottawa 4, 1 March, 1967.

*Noted
C. T. Hyslop
1.3.67*

our file/notre dossier
your file/votre dossier
date

North Admin Br.
Ottawa Ont.
8808
MAR 2 1967
File No. 1009-3-16
Refer To D-1

I enclose a copy of the Minutes of the Second Mackenzie Delta Research
Project Conference, held in Ottawa on December 6.
May I take this opportunity to thank you for your participation in the
Conference.

Your sincerely,

A. J. Kerr,
Northern Co-ordination and
Research Centre.



SECOND MACKENZIE DELTA RESEARCH PROJECT CONFERENCE

The second Mackenzie Delta Research Project Conference was held on December 6, 1966, in the Centennial Tower, Ottawa. The Conference, called to discuss preliminary reports of field work undertaken during the summer of 1966 as well as future planning needs, was attended by members of the research team, and by other scientists and administrators with special interest in the Project.

PRESENT:

- Mr. A.J. Kerr (Chairman)
Northern Co-ordination and Research Centre,
Department of Indian Affairs and Northern Development
- Mr. C. Aasen
Faculty of Engineering
University of Waterloo
- Mr. G. Angers
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Mr. D. Bissett
Industrial Division
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Mr. C.M. Bolger
Director, Northern Administration Branch
Department of Indian Affairs and Northern Development
- Mr. Noah Carpenter
Student, University of Manitoba
- Dr. P.F. Cooper
Peabody Museum
Salem, Massachusetts
- Mr. J. Cox
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Dr. J.B. Ellis
Faculty of Engineering
University of Waterloo
- Mr. A.M. Ervin
Department of Anthropology
University of Illinois
- Mr. R.J. Green
Education Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

- 2 -

- Mr. S. Hancock
Inuvik Regional Administrator
Department of Indian Affairs and Northern Development
- Mr. R. Helbeque
Indian Affairs Branch
Department of Indian Affairs and Northern Development
- Mr. R.M. Hill
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development
- Mr. S.M. Hodgson
Deputy Commissioner of the Northwest Territories
- Dr. J.J. Honigmann
Institute for Research in Social Science
University of North Carolina
- Mr. L.A.C.O. Hunt
Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. C.T. Hyslop
Northern Administration Branch
Department of Indian Affairs and Northern Development
- Dr. Joseph Lubart
College of Physicians and Surgeons
Columbia University
- Mr. J. Maher
Principal, Inuvik School
Department of Indian Affairs and Northern Development
- Miss S. McBain
Resource and Economic Development Group
Department of Indian Affairs and Northern Development
- Mr. F.J. Neville
Welfare Division
Northern Affairs Branch
Department of Indian Affairs and Northern Development
- Dr. N.S. Novakowski
Canadian Wildlife Service
Department of Indian Affairs and Northern Development
- Mr. G.W. Rowley
Secretary, Advisory Committee on Northern Development
Department of Indian Affairs and Northern Development
- Mr. D.W. Simpson
Education Division
Department of Indian Affairs and Northern Development
- Mr. W. Slipchenko
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

- 3 -

Mr. D. Smith
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern Development

Mr. K.W. Stairs
Engineering Division
Northern Administration Branch
Department of Indian Affairs and Northern Development

Mr. E. Weick
Resource and Economic Development Group
Department of Indian Affairs and Northern Development

Mr. J. Wolforth
Department of Geography
University of British Columbia

Mr. W. Wright
Faculty of Engineering
University of Waterloo

Mr. G.F. Parsons
Northern Co-ordination and Research Centre
Department of Indian Affairs and Northern
Development.

(Recording Secretary)

INTRODUCTORY REMARKS

1. Mr. A.J. Kerr explained that the Mackenzie Delta Research Project was a multi-discipline program, being carried out in three stages by the Northern Co-ordination and Research Centre. The first stage had been completed in 1965 when preliminary studies were made and certain key problem areas identified. The second stage, undertaken in the summer of 1966 and designed to explore these problem areas in greater depth, involved a team of specialists in economic geography, community planning, anthropology and psychiatry. While most of the field work of the second stage was completed, one anthropologist would continue his current research until the autumn of 1967. The purpose of the present conference was to hear and discuss preliminary reports from the field workers, to seek recommendations for further research, and generally to provide a forum for the exchange of ideas between researchers and administrators.

II. PRESENTATION AND DISCUSSION OF REPORTS

2. Mr. Kerr regretted that it had been impossible to circulate in advance of the conference copies of the reports which would now be presented. Most of the scientists had completed their field work so recently that there had not been time to prepare and distribute formal papers. He called on the researchers to present their reports, and invited the other participants to comment and ask questions after each presentation.

(a) Economic Prospects of the Mackenzie Delta -

by John Wolforth

3. Mr. J. Wolforth said that in the course of his research in the summer of 1966 he had focused his attention on processes of economic change. There were prospects for the exploitation of oil and gas resources in the Mackenzie Delta, but his studies had led him to the conclusion that such developments were unlikely to have much effect on the local economy apart from providing territorial revenues. There was little chance that oil or gas exploitation would provide large scale employment opportunities for the local labour force. Future local employment possibilities rested rather on using the known renewable resources of the area.

There had appeared to be good possibilities for the establishment of an integrated fur products industry in the Delta, designed to meet the production and marketing needs of both primary producers and fur processors. The present Aklavik tannery operation might have formed a nucleus for establishing such an industry, but in spite of its promising beginnings the tannery now appeared to be in difficulties. In spite of these practical problems, a fur products industry did appear to fulfil certain important requirements which any secondary industry in the Delta must meet. These requirements included labour intensiveness, low energy consumption, and a finished product which had high money value and was light to transport to markets.

There was also potential for a forest products industry. Plans had been proceeding in this direction, but a debate had developed over the proposed location of a sawmill. One suggestion had been to place the sawmill at the timber site on the Arctic Red River, while a counter-suggestion was to locate the mill at Aklavik, close to the people who might benefit most from new employment opportunities. If the purpose of establishing a sawmill was to provide jobs, then it should be located so as to provide maximum benefit to the local inhabitants.

A development program for the Delta must take into account the differing economic needs of different local groups. Older people who wished to follow the more traditional way of life should be helped with the means to do so, while local wage employment should be made available for people in the middle-age group, in government service jobs, and in fur and forest products industries. Such jobs should provide opportunities for training and advancement. The generation presently at school should at least be given the choice of emigrating to southern Canada if they wished. This involved preparing them for adjustment to life in the south, which might be accomplished in part by conducting some of the educational program in schools outside the north.

4. Dr. J.B. Ellis suggested there was a need for more information on the proportions of native people who wished to remain in the north, who wished to continue in traditional economic pursuits, and who wished to migrate to southern Canada. It seemed possible that a review of studies already conducted might provide some information in this regard.

5. Dr. J. Lubart said it was a mistake to think that all Eskimos who might be assisted to relocate in southern Canada should be placed initially in middle-class or white-collar positions. There was no reason why they could not, like other "immigrants", take un-skilled jobs at the start, and be given an opportunity to work their way into higher socio-economic levels. Socio-economic mobility was a major feature of southern Canadian life in which native peoples should be given the opportunity, and indeed be encouraged, to participate.

6. Mr. N. Carpenter said that, speaking as an Eskimo resident of the Delta, he agreed with Dr. Lubart.

(b) A Report on Anthropological Field Work -

by A.M. Ervin

7. Mr. A.M. Ervin explained that his assignment had been to explore significant sub-groupings in the Delta population, as a follow-up to a preliminary study conducted by Miss J. Mailhot in the summer of 1965. During his research, Mr. Ervin had considered such factors as ethnicity, styles of life, age and sex groupings, community organization, social stratification, and formal organizations. He had found that in general, social groupings in the Delta were not as strongly defined on the basis of ethnicity as has been reported for other northern areas. Instead, a growing basis of distinction was that of "northerner" versus "southerner", or of the long-time resident of the Delta versus the transient from the provinces. Included among those who identified themselves and were identified as northerners were Indians, Eskimos, Metis, white trappers, entrepreneurs and a few civil servants. In general, these people tended to view the southerners as opportunistic intruders. While ethnic differences remained, they were becoming less important as bases of social distinction.

In Inuvik many native people lacked the education and experience for successful adjustment to town life. Many in the younger generation were growing up in a "welfare culture", and there was a confusion of goals, and lack of any strong sense of identity. Heavy drinking seemed most importantly an expression of psychological depression and economic frustration. Native leadership was weak, and most of the voluntary associations were dominated by transient whites. Many of the younger people were ashamed of their native origins, and a growing number

had become "marginal men" caught between two cultures. Of all the age and sex groupings considered, the young girls appeared to be most acculturated. They placed a high value on town life, and many were rejecting native males and aspiring to marry white men. This led to sexual exploitation by transient white workers, and to attendant social problems.

8. Mr. G. Anders said he was struck by the many parallels between problems and behaviour patterns in Inuvik and in many of the older northern mining communities, and suggested that it might be useful to explore the implications of this parallelism.

9. Mr. R.M. Hill observed that while Inuvik did have social problems, conditions in the town were not all bad. He suggested that further analysis and quantification of data would perhaps serve to bring about a somewhat different perspective on Inuvik.

10. Mr. Wolforth pointed out that the focus of a scientist's attention might well be on pathological factors in a community, and if so these would tend to be emphasized in his report.

11. Dr. J. Lubart said it was his observation that there was even greater social pathology at Inuvik than Mr. Ervin's data had suggested. He added that it was better to over-emphasize the pathology than to ignore it.

(c) A Study Mental Health of Native People in the Delta -

by Dr. J. Lubart

12. Mr. Kerr explained that Dr. Lubart had been concerned with gathering material pertaining to the mental health of the native population, with a view to gaining insights into the causes and effects of psychological stress in a situation of rapid social change. For several reasons, Dr. Lubart had found it necessary to focus attention on the local Eskimo population.

13. Dr. Lubart described his research methods as including participant observation, intensive interviews with selected native people, and analysis of material in police and court records. He questioned the notion that all problems of individual adaptation to social change could be adequately dealt with in quantifiable terms. He summarized a number of values, attitudes, and institutionalized practices which had served socially integrative and psychologically adaptive functions in traditional Eskimo society, but which might be disintegrative or non-adaptive in an urban milieu. These included patterns of sharing, child adoption, permissive child rearing, suppression of rage and overbearing activity, emphasis on shame rather than guilt as a mechanism of social control, and emphasis on equality among adult males and of dominance over females.

It could be hypothesized that in the past, factors in the social and physical environment had contributed to a certain restriction in the range of imaginative and creative thought. New social conditions were permitting women to overcome their traditional inferior status, and women were expressing their resentment of that status by rejecting Eskimo men and aspiring to unions with white men. The Eskimo female aspired to be like the white female, and might seek self-validation

through bearing a white child. Many males were faced with a tremendous sense of failure. They had lost their sense of usefulness and of pride. Unable to compete economically and socially with the white man, and faced with rejection by their women, the Eskimo men often experienced serious psychological disturbance, and tried to curb their anxieties and to enhance their unfavourable self-images by excessive use of alcohol.

Dr. Lubart expressed concern regarding the attitudes of many transient whites toward the local native people. These attitudes ranged from fear and contempt to good-natured indifference; the ethnic stereotypes associated with either of these extremes could contribute to the establishment of a caste system. Dr. Lubart stressed the need for a study of the factors influencing the psychological development of pre-school Eskimo children, with particular emphasis on factors which might stimulate or inhibit the capacity for creative thought. It was his impression that creative activity in children was restricted largely to the making of objects, and that there was relatively little other creative activity of a more imaginative or "philosophical" kind.

14. Mr. Maher endorsed Dr. Lubart's suggestion for a study by a child psychologist.

(d) Functional Evaluation of the Inuvik Settlement Plan -

by C. Aasen and W. Wright

15. Mr. Kerr said that the study by Messrs. Aasen and Wright had been aimed at developing a method for town planning which might have applicability not only in the Mackenzie Delta, but more widely in northern Canada. Because of the large amount of relevant data available for the area the Delta offered special opportunities for developing a methodology.

16. Mr. C. Aasen said that in developing a conceptual framework for planning, he and Mr. Wright were attempting to take into account as many as possible of the variables in the physical and social environment which might be significant for community planning. This was being done with the help of specialists in other disciplines who were participating in the Mackenzie Delta Research Project.

17. Mr. W. Wright said that on the basis of data gathered in the field and using computer techniques, nearly one hundred variables had been subjected to factor analysis, with the object of establishing, if only tentatively, significant relationships between them. This analysis had made it possible to prepare several charts and maps showing graphically the relationships between several empirically identified variables and clusters of variables. Results had been quite promising so far, although further analysis had yet to be done.

18. Mr. J. Cox said he was pleased with the progress made in the study, and thought that the method promised to be useful for community planning in the north. Many problems had to be faced in this field, including the alleviation of overcrowding, and the discovery of alternatives to the "sub-division" type of development, in current use. The physical form of a settlement had a special impact on the way of life of its people, and it was not realistic to separate settlement planning from community development planning.

19. Mr. Anders observed that the social health of an unplanned community was sometimes better than that of a planned community, and therefore it was not entirely facetious to ask if provision should be made in northern settlement planning for slums. It was a known fact that people of similar backgrounds and socio-economic status tended to live together in their own residential areas, apart from people possessing unlike social characteristics. The mingling of unlike types in a single residential area had been attempted in planned communities in the past, but the various groups had not interacted and serious tensions had developed, which were only reduced when people were allowed to form their own residential groupings. It seemed necessary to provide a physical area for the failures, and for those who could not compete in the mainstream of community life.

20. Mr. Cox thought that the planning method under consideration was capable of coping with the problem Mr. Anders had raised.

21. Mr. Wright agreed that provision for dealing with this problem was within the scope of the method.

22. Mr. Carpenter asked if community planners made a practice of determining the opinions and needs of local people. He said that when Inuvik was being planned, the people of Aklavik were not consulted regarding their willingness to move to the new town. Similarly at Tuktoyaktuk, a new housing development had been provided, but the people had chosen not to move out of their old houses. It seemed that the assessing of local views was an essential preliminary to implementing such changes.

23. Mr. Cox said that attempts had been made recently to hold public meetings in some areas to obtain local views, but with indifferent success. He agreed with Mr. Carpenter that opinion surveys were needed, but staff had not been available in the past.

(e) Field Work in Progress -

24. Mr. Kerr invited Mr. D.G. Smith to describe the general nature of the research he was conducting at the present time in the Delta.

25. Mr. Smith said that his current work was an extension of a preliminary study undertaken in the summer of 1965. He expected that his present period of field work would extend over one year, during which time he hoped to develop an ethnography of the Mackenzie Delta. He would examine in some depth the attitudes and values underlying the Delta's social structure. As one technique to study this, he planned to formulate a set of questionnaires and to administer a series of tests to school children in selected age groups, in order to learn more about native values and preferences with regard to different occupations and ways of life. One of the primary objectives of research was to discover how native people responded to the opportunities provided and to the restrictions imposed by the white-dominated social milieu. It was too early as yet to report general findings.

III. DISCUSSION OF FUTURE PLANNING NEEDS

26. Mr. Kerr pointed out that the purpose of the Mackenzie Delta Research Project was to produce findings which could be significant for future planning and policy formation. A number of problem areas which had been touched upon required further consideration in the hope of finding practical solutions, and of determining possible future research needs. It was clear that a central problem in the Delta had to do with the socialization of native peoples to an increasingly urbanized way of life. Whether or not they made effective adjustments depended in no small measure on the direction of change in their value system, and on the values and behaviour they encountered in the white transient population. Therefore, a discussion of future planning needs might profitably begin with a consideration of the importance of white behavioural models, and of the qualities to be sought when recruiting southerners for northern service.

27. Dr. Lubart said that a fairly common element in Eskimo personality seemed to be a wish for a parent figure. Eskimos could show fairly strong dependency orientations and a need for affective relationships. People responsible for helping them should be paternalistic, but not authoritarian.

28. Mr. F.J. Neville agreed with Dr. Lubart that Eskimos needed a sense of personal security, and that officials should recognize this.

29. Mr. Smith said that Eskimos generally placed a high value on inter-personal relationships, and tended to react to the actions of officials in personal terms, failing to understand the impersonality and emotional neutrality which typified purely official decisions. Consequently, an Eskimo presented with an unfavourable official decision was likely to consider that he himself had been personally rejected. Similarly, an impersonal command might be interpreted as a personal criticism. There should be some way to systematically acquaint whites in the north with some of the central facts of Eskimo personality and cultural values, and the culturally determined behavioural cues which they employed to signify various emotional states. Associated with this kind of instruction might be some training in techniques for giving commands to native persons. Introduction of such an orientation and training course would be highly practical to the administration, since it would facilitate the avoidance of negative responses from the local people which interfered with the achievement of official objectives.

30. Mr. Kerr said it had been demonstrated that many kinds of people functioned effectively with Indians and Eskimos. However, it could be useful to isolate the common characteristics which these successful people shared.

31. Mr. S. Hancock thought that the qualities most needed in officials dealing with native peoples were frankness and personal integrity.

32. Mr. R.J. Green thought such qualities were necessary in working with people anywhere, and those who demonstrated these qualities in other settings probably would do well among the native peoples of northern Canada.

33. Dr. Lubart said some personality types could be harmful in a northern context. These types were not always easily identified. By way of example, he mentioned the "romantic" who used the native person in order to fulfil his own psychological need for others to be dependent upon him, thus bolstering his own ego.

34. Mr. Wolforth suggested that certain educational institutions might be asked to provide appropriate training and orientation for civil servants and others who were being posted to the north.

35. Mr. Simpson said at the present time both the University of Saskatchewan and the University of Alberta had courses for teachers who expected to be working with children of other cultures.

36. Mr. Maher said attempting to recruit "nice people" was not enough. Most Canadians were so conditioned by their culture that they could not understand or tolerate cultural values which differed from their own. Therefore, they needed some orientation before going into a cross-cultural situation, regardless of how admirable their personal qualities might be.

37. Mr. Kerr invited comments on the subject of behavioural models and their significance for socialization.

38. Mr. Ervin considered that whites in the north presented two basic models for native people to emulate. First was the model of the white construction worker; this reinforced many of the existing indulgence patterns, especially in drinking and sexual activity, which needed to be de-emphasized for effective adjustment. The second model was that of the administrator, or in native terms the "paper pusher". In fact, the administrator was not really a model at all, because he had so few points of contact with native people and was not in a position to transmit values or attitudes. A wider range of behavioural models was therefore needed in the north, to acquaint the native people with the various behaviour patterns which were acceptable in white society, but which they had little opportunity to observe.

39. Dr. Ellis noted that television was a possibility in the Delta in the fairly near future. He suggested television could provide a wide variety of behavioural models, and thought it could be a very influential medium in future.

40. Mr. Smith said that already other popular media were strongly influencing the values and behaviour of the Delta's young people, not always in desirable directions.

41. Dr. Lubart questioned the idea that commercial television would have beneficial effects in the Delta.

42. Dr. Lubart stressed the necessity of adequate parental behaviour models for inculcating values in small children. The unemployed or sporadically employed father made a very poor model, especially if this pattern was combined with permissive child rearing practices. Where there was an inconsistent work pattern, there was little opportunity for a child to internalize work discipline as a value. Boys in particular needed adequate parental models, and their absence could pose serious problems for the future.

43. Mr. Hancock said he had heard much criticism of the hostel system. However, if the home environment of children was commonly as inadequate as Dr. Lubart suggested, then perhaps the influences of the hostels on children were favourable by comparison.

44. Dr. Lubart observed that children who had lived on the land with their families did better in school than children who came from town families. The children from the land had been exposed to the model of an integrated and functioning family, which served to instill in the child the belief that work was a virtue. Thus the significance of the availability of work could not be understated.

45. Mr. Kerr thought it significant that Dr. Lubart, although a psychiatrist and not an economist, viewed economic considerations as central in the solution of pressing human problems in the Delta. It seemed that the starting point for other change must be the provision of employment to local people, and that employment and not production should be the prime objective of any plan for industrial development.

46. Mr. Green thought that if this approach were adopted as policy, a limit would have to be established beyond which purely economic considerations would have to prevail.

47. Mr. Kerr asked if it would be feasible to make an estimate of the future costs of failing to provide jobs.

48. Mr. Green thought this would be feasible as a research project.

49. Miss McBain suggested that such a study could compare the future costs of training people for jobs, with the probable costs of keeping these same people on relief.

50. Mr. Hyslop agreed that such a study could be very useful to the administration.

51. Mr. Anders said that any development plan should have three objectives: more employment, better living standards, and greater exploitation of renewable resources. This constellation of aims raised the question of the extent to which the population should be dispersed or concentrated. It challenged planners to consider how resource exploitation needs could be accommodated in town planning.

52. Dr. Ellis suggested that one way to approach this problem might be a study to determine which people should be encouraged to stay on the land, and which should be encouraged to enter wage employment. He was making this suggestion on the assumption that there were ways to identify those characteristics needed to perform different kinds of jobs in different settings.

53. Mr. Wolforth said that while a great deal of criticism was levelled at Inuvik, it was nevertheless true that the town had created much wage employment. In the past, critics had overstressed the lack of an economic base for the town. In fact, the administrative function provided an economic base in itself, as it did in Ottawa. The difficulty in the north was that government provided the economic base for too many areas. Employment for native people should be stable, should provide opportunities for upward mobility, and should provide training in skills usable outside the north.

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65. Mr. Kerr thanked those present for their participation. The conference had provided an opportunity for discussion and exchange of ideas, and had indicated some areas in which future research might be conducted. Hopefully, it had also highlighted certain problems requiring consideration by administrators and planners engaged in all aspects of northern development.

G.F. Parsons,
Recording Secretary.

January, 1967
Department of Indian Affairs and
Northern Development.

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/ 1/16



CANADA

COPY FOR MR. K. W. STAIRS

Mr. Stairs
all sent possible
12/1/66

Department of
Indian Affairs and
Northern Development

Northern
Administration
Branch

Ministère des
Affaires indiennes et
du Nord canadien

Direction
des régions
septentrionales

Ottawa 4, December 5, 1966.

BRANCH PERSONNEL ADVISER
DIVISION CHIEFS

our file/notre dossier
your file/votre dossier

1009-3-16

Mackenzie Delta Research Project

I wrote to you on November 18 about the above conference and at that time mentioned that the time and location of the meeting would be made known to you at a later date.

The Research Centre has now given us the following information:

Place: Room 300, north wing,
Centennial Tower

Time: 9:00 am - 12:00 noon
2:00 pm - 5:00 pm.

While you are being asked to be in attendance on the afternoon of Tuesday, December 6, we are now told that you will all be most welcome for the morning session where preliminary reports will be presented.

J. L. Doyle

J. L. Doyle,
Administrative Officer,
for Director.



COPY FOR MR. D. DAVIDSON

Mr. G. G.
J. A. [unclear]
AD

Department of
Indian Affairs and
Northern Development

Northern
Administration
Branch

Ministère des
Affaires indiennes et
du Nord canadien

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Ottawa 4, December 5, 1966.

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Place: Room 300, north wing,
Centennial Tower

Time: 9:00 am - 12:00 noon
2:00 pm - 5:00 pm.

While you are being asked to be in attendance on the afternoon of Tuesday, December 6, we are now told that you will all be most welcome for the morning session where preliminary reports will be presented.

J. L. Doyle

J. L. Doyle,
Administrative Officer,
for Director.

P/A Kelly
6/12/66
MA



COPY FOR MR. N. HEMBRUFF

Department of
Indian Affairs and
Northern Development

Northern
Administration
Branch

Ministère des
Affaires indiennes et
du Nord canadien

Direction
des régions
septentrionales

Ottawa 4, December 5, 1966.

BRANCH PERSONNEL ADVISER
DIVISION CHIEFS

our file/notre dossier 1009-3-16
your file/votre dossier

Mackenzie Delta Research Project

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J. L. Doyle,
Administrative Officer,
for Director.

*Discussed with Clare.
Not essential this Div. be represented.
Too busy today - so we didn't attend*

MA

SENT
DEC 5

PA
196
A3
↓

Ottawa 4, December 5, 1966.

1009-3-16

BRANCH PERSONNEL ADVISER
DIVISION CHIEFS

Mackenzie Delta Research Project

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J. L. Doyle,
Administrative Officer,
for Director.

pr



*Wiley
N.S.W.
P.A. (D)*

NORTHERN ADMIN. BRANCH	
OTTAWA, ONT.	
DEC 5 1966	
No.	
FILE	1009-3-16
REFER TO	P-1



Department of
Indian Affairs and
Northern Development

Northern
Administration
Branch

Ministère des
Affaires indiennes et
du Nord canadien

Direction
des régions
septentrionales

Ottawa 4, December 5, 1966. X

BRANCH PERSONNEL ADVISER ✓
DIVISION CHIEFS

our file/notre dossier 1009-3-16
your file/votre dossier

Mackenzie Delta Research Project

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J. L. Doyle
J. L. Doyle,
Administrative Officer,
for Director.



Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

[Handwritten signature]

Ottawa 4, December 2, 1966. X

[Handwritten mark]

MR. C.M. BOEGER,
DIRECTOR, NORTHERN ADMINISTRATION BRANCH.

our file/notre dossier
your file/votre dossier
date

1004-3-106

Mackenzie Delta Research Project Conference,
Tuesday, December 6, 1966.

Please be advised that the meeting will be held in Room 300, 3rd Floor of Centennial Tower. This room is located in Emergency Measures Organization section, immediately opposite to the entrance door in the north wing.

The morning session, at which oral reports of last season's research will be presented, will begin at 9.00 a.m. and end at noon. The afternoon session, at which recommendations based on research will be presented, will begin at 2.00 p.m. and end at 5.00 p.m.

[Handwritten signature]

G. W. Rowley,
Secretary,
Advisory Committee on
Northern Development.

Raymond
Re inform Chiefs
by phone
done 5-12
RD





Northern Administration
 Ottawa, Ont.
3105
 NOV 29 1966

File No. 1009-3-16
 Refer To 00

PA

Department of
Indian Affairs and
Northern Development

Northern
Administration
Branch

Ministère des
Affaires indiennes et
du Nord canadien

Direction
des régions
septentrionales

DIRECTOR

Ottawa 4, X

our file/notre dossier 1009-3-16
 your file/votre dossier
 date November 28, 1966.

Mackenzie Delta Research Project Conference

By memorandum dated November 18, 1966, you requested that all Division Chiefs reserve the afternoon of Tuesday, December 6 for attendance at the above Conference. Would you please advise whether this Conference is restricted solely to Division Chiefs or whether other Division personnel may attend. I would like Mr. Cox to attend the Conference with me since he has endeavoured to follow the progress of the planning oriented studies which are being undertaken as part of the Delta Research Project.

No

Yes

K.W. Stairs,
Chief, Engineering Division

*Mr Stairs
11/20/66*

*Absolutely in order for Mr Cox
to attend*

*Noted
PKC*



Department of Indian Affairs
 and Northern Development

Ministère des Affaires indiennes et
 du Nord canadien

TEMPORARY FILE

DOSSIER PROVISOIRE

BRANCH - DIRECTION

File No. - Dossier N°

1009-3-16

Temp. File No. - Dossier provisoire n°

2436

Subject - Sujet

Mackenzie Delta Research Project.

Main File is charged to - Dossier principal inscrit au nom de

A3

25-11

REFERENCE - RENVOI

ACTION TAKEN - MESURES PRISES

Referred to - Destinataire	Remarks - Remarques	Date	Initials - Initiales	P.A. Date or T. - Date de rangement ou de transmission	B. F. Date - Date de rappel	Initials - Initiales	Registry Inspection - Examen du service des Archives
Dir	25-11 3313	28-11	RD	+		RD	DEC - 1966
K-1	" "	28-11	RD	1/12/66		RD	DEC - 1966

Ken / Chief / Co-ordinator

PA



Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

MR. C.M. BOLGER, DIRECTOR,
NORTHERN ADMINISTRATION BRANCH

Ottawa 4, November 25, 1966

our file/notre dossier
your file/votre dossier
date

NORTHERN ADMIN. BRANCH	
OTTAWA, ONT.	
3313	
NOV 25 1966	
No.	
FILE	1009-1009-2-16
REFER TO	DA

Mackenzie Delta Research Project Conference

Further to my message of November 10, may I make one additional suggestion. Mr. John Cox, Town Planning Officer of the Engineering Division, has been working in close association with Mr. Clarence Aasen and Mr. Walter Wright. They have been engaged in a town planning study in the Mackenzie Delta. Their study is one of the research undertakings in the Mackenzie Delta Research Project. They have received a good deal of advice and assistance from Mr. Cox, and it is hoped that their data and analysis will be useful to him in his work. I believe that it would be very much to the benefit of Northern Co-ordination and Research Centre and the Branch if Mr. Cox could attend the conference on ~~May~~ 6.

December

A.J. Kerr,
for Chief,
Northern Co-ordination
and Research Centre.

Mr. Stavis

29/11/66



A 3

25'

COPY FOR MR. D. W. SIMPSON



ANADA

Department



Northern Administration Branch
of Indian Affairs and
Northern Development

Ministère



Direction des régions septentrionales
des Affaires indiennes
et du Nord canadien

*BA/PO m/Jan
29/12/66
m m H*

DIVISION CHIEFS

Ottawa 4, November 18, 1966.

our file / notre dossier
your file / votre dossier

1009-3-16

Mackenzie Delta Research Project Conference

Last April you received draft reports on the preliminary phase of the Mackenzie Delta Research Project and you were good enough to give your views and suggestions on these reports.

The Northern Co-ordination Research Centre is now in a position to arrange a formal conference and this has been planned for Monday and Tuesday, December 5 and 6. Monday's opening session, we are told, is being devoted to consultations between researchers and Tuesday morning to the reading of preliminary reports of the summer's field work. Tuesday afternoon will see several recommendations based on the Centre's research presented for discussion. It is here where we are asked to be present because of the direct involvement this project has with our northern operation. I would appreciate it if all Division Chiefs reserve the afternoon of Tuesday, December 6 for attendance at this conference.

Arrangements are still being worked out for the time regarding actual hour and location for the conference and you will be advised in sufficient time.

Director

REWS

20-11

*Mrs. H.
to note
put on calendar*

*Done
2/11/66
MMA*

P.A. 6/12/66

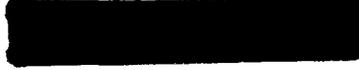
COPY FOR MR. J. W. EVANS



CANADA

Department

Ministère



Northern Administration Branch

Direction des régions septentrionales

of Indian Affairs and Northern Development

des Affaires indiennes et du Nord canadien

DIVISION CHIEFS

Ottawa 4, November 18, 1966.

- 1. *Mr. [unclear]*
- 2. *Leung*
- 3. *Mr. Anders*
- 4. *Mr. Bisset*

our file / notre dossier 1009-3-16

your file / votre dossier

please see Mr Kerr re the attachments of yourself and Don. J.S.

Mackenzie Delta Research Project Conference

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[Signature]
Director

NOTE FOR INDUSTRIAL DIVISION

Mr. Kerr of the Research Centre has suggested that Don Bisset attend the meeting and you should arrange this, if at all possible.

Mr Anders should attend as well.

COPY FOR MR. K. W. STAIRS



Department



Northern Administration Branch
of Indian Affairs and
Northern Development

Ministère



Direction des régions septentrionales
des Affaires indiennes
et du Nord canadien

Direction des régions septentrionales

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29/11
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DIVISION CHIEFS

Ottawa 4, November 18, 1966. X

our file / notre dossier
your file / votre dossier

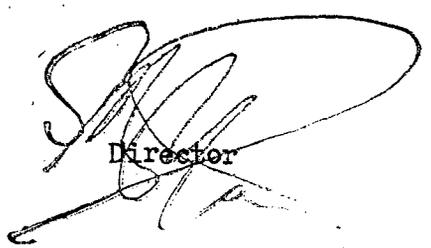
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Director

COPY FOR MR. F. J. NEVILLE

157 5/1/68
A J M W I



Department
[Redacted]
of Indian Affairs and
Northern Development

Northern Administration Branch

Ministère
[Redacted]
des Affaires indiennes
et du Nord canadien

Direction des régions septentrionales

DIVISION CHIEFS

Ottawa 4, November 18, 1966.

Handwritten box containing:
38.67
36

our file / notre dossier 1009-3-16
your file / votre dossier

Mackenzie Delta Research Project Conference

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Handwritten note:
Noted
in your
calendar
JD

[Handwritten Signature]
Director

Handwritten initials/signature

*sent
17-11
RD*

**CHIEF,
NORTHERN CO-ORDINATION AND RESEARCH CENTRE Ottawa 4, November 18, 1966.**

1009-3-16

Attention: Mr. A. J. Kerr

Mackenzie Delta Research Project Conference

Thank you very much for your memorandum of November 10 outlining the plans you have for the Conference. The dates are suitable to us and in addition to informing our Division Chiefs of the meeting and the need for their attendance, I have written to the Mackenzie District requesting that Messrs. Hancock and Maher be permitted to attend the session.

I understand that definite arrangements have not as yet been made about the room to be used for the Conference but Mr. Kerr tells us that you will let us know as soon as possible what the situation is regarding this.

Handwritten signature
Director

J. L. Doyle/pr

Handwritten signature

SENT
NOV 18

BF

25/11/66
AS

ADMINISTRATOR OF THE MACKENZIE

RECALL
25-11-19 66
43
Noted J.C.

Ottawa 4, November 17, 1966.

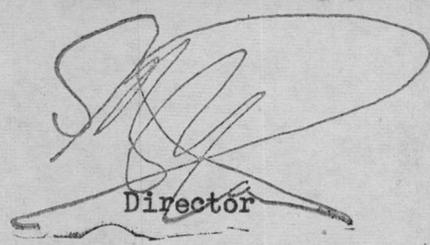
1009-3-16

Mackenzie Delta Research Project Conference

In June of 1965 you were first made aware of the Research Project being undertaken by the Northern Co-ordination and Research Centre and the fact that we would certainly have an involvement in the other phases of it.

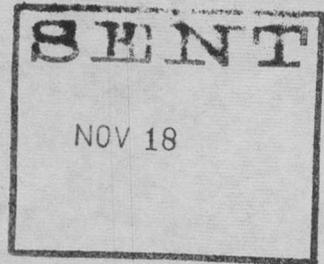
We have now received a memorandum from the Chief of the Centre fixing the date of the Project Conference for December 5 and 6 here in Ottawa. Naturally the Centre is most anxious to have representatives and participation of members from this Branch and all Division Chiefs are being notified to be present at least for the final session of the Conference when recommendations based on research will be presented for discussion.

The Chief of the Centre thinks it is very important that Mr. Hancock and Mr. Maher of Inuvik be present at the Conference in order that they may take an active part in these discussions. I agree completely with what the Centre is thinking on this and I would hope that the officers can be released for this short period of time. I would appreciate knowing your decision as soon as possible.


Director

J. L. Doyle/pr





DIVISION CHIEFS

Ottawa 4, November 18, 1966.

1009-3-16

Mackenzie Delta Research Project Conference

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Director

NOTE FOR INDUSTRIAL DIVISION

Mr. Kerr of the Research Centre has suggested that Don Bisset attend the meeting and you should arrange this, if at all possible.

J. L. Doyle/pr



ACTION REQUEST

FICHE DE SERVICE

FILE NO. — DOSSIER N°

TO — À

J. Doyle

DATE

16/11/66

LOCATION — ENDRIT

FROM — DE

[Signature]

ACTION
DONNER SUITE

APPROVAL
APPROBATION

COMMENTS
COMMENTAIRES

DRAFT REPLY
PROJET DE RÉPONSE

MAKE
FAIRE.....COPIES

NOTE AND FILE
NOTER ET CLASSER

NOTE & RETURN/OR FORWARD
NOTER ET RETOURNER/OU FAIRE SUIVRE

P. A. ON FILE
CLASSER

REPLY
RÉPONSE

SEE ME
ME VOIR

SIGNATURE

TRANSLATION
TRADUCTION

YOUR REQUEST
À VOTRE DEMANDE

000515

North Admin Br.
 Ottawa, Ont.
 874
 NOV 10 1966
 File No 1009-3-16
 Refer To D.O.



Department of
Indian Affairs and
Northern Development

Deputy Minister

Ministère des
Affaires indiennes et
du Nord canadien

Sous-ministre

22397

MR. C.M. BOLGER, DIRECTOR,
NORTHERN ADMINISTRATION BRANCH

Ottawa 4, November 10, 1966.

our file/notre dossier
your file/votre dossier
date

Mackenzie Delta Research Project Conference

In a phone conversation some time ago I discussed with you the possible date of a research conference at which Branch participation could be planned. You said that among the alternatives offered, December 6 seemed preferable. After checking with the other people involved, I have fixed this as the final date. Our project conference is being planned for Monday and Tuesday, December 5 and 6.

Monday will be used for consultation between researchers. On Tuesday morning, preliminary reports of last summer's field work will be read. (I am suggesting that these reports should take approximately 20 minutes each.) On Tuesday afternoon, several recommendations based on our research will be presented for discussion. A warm invitation to attend the Tuesday sessions is extended to Northern Administration Branch officers. In fact, without discussion and comment from Branch people, our conference cannot be a success. May we count on the presence of a substantial Branch representation?

I think it is important to have representation from the Delta, and I am anxious to have Sid Hancock (Inuvik Regional Administrator) and if possible Jim Maher (Inuvik School Principal). If your funds impose restrictions here, we can probably find the money. I hope that Don Bisset (Area Survey Officer) will also be able to attend.

I shall be very interested in your comments and in any suggestions you care to make.

Mr Hembouff
Could you have Mr Doyle follow up on Dis for the secretariat. It should be filled and the substance of the penultimate referred to Adm. para

A.S. Kerr,
for Chief,
Northern Co-ordination
and Research Centre.

