THE EFFECT OF TRANSPORTATION POLICIES ON THE SOCIO-ECONOMIC VIABILITY OF REMOTE NORTHERN MANITOBA NATIVE COMMUNITIES

by

Gary E. Ceppetelli

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ABSTRACT

The provision of external transportation linkages can have a dramatic effect on the socio-economic viability of a community. However, the provision of all-weather road linkages in Northern Manitoba became synonymous with resource exploitation. The traditional native communities were neglected up until the late 1960's, as modern forms of transportation left the majority of them isolated. Furthermore, the pattern of settlement, characterized by point development, diminished their hopes of being linked to the provincial road system.

The intent of this thesis is to determine what effect transportation linkages, or the lack thereof, have had on the socio-economic viability of remote native communities in Northern Manitoba, as well as to trace the effects of the various government transportation policies on these native communities.

This thesis utilizes past material and field research to determine what impacts are apparent due to transport linkages. From this examination, transportation problems affecting socio-economic development are made known. Hence, actions are proposed for the alleviation of these problems.

Drawing from previous materials and the field research, a new approach for native transportation is delineated. This takes the form of a comprehensive transportation policy for native communities in Northern Manitoba. Specific short-term policies are proposed to guide native communities towards the long-term future direction.

ACKNOWLEDGEMENTS

The completion of this thesis follows the culmination of a number of factors. A study of this magnitude could not have been achieved without guidance and help along the way. Therefore, I would like to extend gratitude to the various individuals and agencies involved.

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Lastly, but by no means least, I would like to thank my wife Karen, who supported me fully in my academic endeavors, to whom I dedicate this work.

ABBREVIATIONS

ARDA	-	Agricultural & Rural Development Act
ATC	-	Air Transport Committee
CN	-	Canadian National
CTC	-	Canadian Transport Commission
COMEF	-	Commission of Manitoba's Economic Future
DVF	-	Daylight Visual Flying
DIAND	-	Dept. of Indian Affairs and Northern Development
EPA	-	Eastern Provincial Airlines
GDA	-	General Development Agreement
HBC	-	Hudson Bay Company
INAC	-	Indian and Northern Affairs Canada
MGAD	-	Manitoba Government Air Division
MIB	-	Manitoba Indian Brotherhood
MMF	-	Manitoba Metis Federation
MNRA	-	Manitoba Natural Resources Act
MPIC	-	Manitoba Public Insurance Corporation
MTS	-	Manitoba Telephone System
NTA	-	National Transportation Act
NDB	-	Non-Directional Beacon
NACC	-	Northern Association of Community Councils
PAT	-	Patient Air Transport
PC	-	Progressive Conservative
PR	-	Provincial Road
PTH	-	Provincial Trunk Highway
RCMP	-	Royal Canadian Mounted Police
STOL	-	Short Take-Off and Landing
TED	-	Targets on Economic Development

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Chapter I

INTRODUCTION

1.1 Statement Of Purpose

The purpose of this thesis is to determine what effect transportation linkages have on the socio-economic viability of native communities in Northern Manitoba. The transportation network is viewed as exogenous -- an instrument in influencing the socio-economic development of these communities. After viewing how transportation networks have affected, if at all, the socio-economic viabilities of these communities, recommendations are put forth concerning the most appropriate course(s) of action to follow. These actions are geared towards enhancing the quality of life experienced in remote native communities.

In order to test the premise that transportation linkages do effect the socio-economic viability of northern native communities, a case study approach is undertaken. This is done to compare and contrast socio-economic development between all-weather road and remote communities.

1.2 Statement Of Problem

Transportation linkages are examined in terms of possible impact on the socio-economic development of Northern Manitoba native communities. These impacts can be advantageous, as well as detrimental to a community. On one hand, it is perceived that all-weather surface transportation would cause a reduction in the cost of living and isolation as a result of the increased mobility. As well, more abundant economic productivity and employment opportunities would be prevalent. On the other hand, a perception of a deterioration of native culture would result with the infiltration of Euro-Canadian values and norms brought about by the permanent surface link. This, along with an increase in social problems, would advance disruption of the community. Another set of problems, albeit perceived, are: a federal-provincial jurisdictional problem in administering a transportation policy; and a pattern of disjointed incrementalism in provincial transportation policies.

This thesis will substantiate or refute the perceived problems outlined above. In determining if any net benefits accrue to native communities as a result of a permanent surface connection, a number of questions are answered. The thesis determines if some type of government policy exists regarding the development of transportation networks for northern native communities, or if government policy is just related to specific modes of transport. From these ques-

tions it is distinguished whether or not present government policy is an effective instrument in developing the socio-economic viability of northern native communities. As a result of dealing with these questions, actions are proposed in order to maximize the net benefits experienced by these communities.

With the provision of permanent transportation linkages, trade-offs will occur. For instance, is the quality of life in these communities enhanced or deteriorated? This is looked at from the viewpoint of the community residents, as perceptions of quality of life from people outside the community may possess undue biases.

In redefining the problem, transportation linkages to Northern Manitoba native communities, or the lack of, as a result of various government transportation policies and programs have had a major influence on the socio-economic development of these communities. However, incremental policy decisions by the senior levels of government have produced inadequate transportation requirements and facilities to a majority of northern native communities. Therefore, a new approach and comprehensive transportation policy is needed if remote communities are to experience an improvement in their quality of life. As well, any government action undertaken has to be co-ordinated with the native communities involved, not forced upon them.

1.3 Orientation

The thesis considers the effect of transportation linkages to northern native communities from two viewpoints: their economic well-being and their social development. Transportation is viewed as an important service with the potential of enabling people to enhance their quality of life through increased social and economic opportunities.

The thesis is based on the premise that native communities are permanent entities and, therefore, appropriate action(s) concerning transportation is needed. With this in mind, the thesis is approached from a social science and planning perspective. The thesis considers both social and economic criteria when proposing actions to alleviate community problems.

The limitations this thesis faces are that generalizations made from the case study communities may not apply fully to other remote native communities in Northern Manitoba. While this is realized, important lessons can still be learned.

1.4 General Methodology

This thesis evolves from a number of methodological steps, but it proceeds essentially on the basis of a case study approach. Prior the the case studies though, an extensive review of the literature was conducted to establish the historical and socio-economic background of north-

ern native communities. The problem is analyzed on the basis of a historical and institutional approach. Hence, the study is not a quantitative analysis, but a social one.

By reviewing the literature, different phases of transport technology were revealed and problems that had to be dealt with were disclosed. Also various government transportation policies and programs were examined for their effects on northern native communities. This information was correlated in an attempt to identify the prevailing issues.

After a review of the literature was completed, the selection of the case study communities was delineated. The sample areas involved four Northern Manitoba native communities based on a hierarchy of transportation facilities, in order to see the effect government transportation policies and programs have had on these communities in general. From the field research it was possible to evaluate the effects of economic health and social well-being in the community in question as a result of the various government policies and programs concerning transportation linkages.

Finally, based on the literature review and case studies, scenarios were constructed as a means to evaluate proposed sets of policies and actions. Alternatives were offered in order to select the "best" solution for the situation at hand. The actions proposed reflect the various needs and limitations of different groups.

1.5 Definition Of Terms

For the purpose of this thesis the term "native" is considered to be anyone with an aboriginal background. Since socio-cultural similarities exist between Treaty Indians, non-status Indians and Metis, this thesis considers them as one entity unless otherwise stated (ie. Indians refers to Treaty Indians). The differences between the various groups are construed as being purely legal. With this thesis focusing on native communities, of which the majority consist of adjacent Indian Reserves and Metis communities in Northern Manitoba, their external transportation needs and wants are assumed to be the same.

A further clarification is needed for the term "natives". This thesis concerns itself with northern natives and not the ones that have migrated into urban centers, as their problems are different.

1.6 Synopsis of Chapters

The second chapter involves a discussion of the theory of isolated settlements. Then the historical and socio-economic background of Northern Manitoba native communities is studied. Needs, trends and problems of these communities are outlined as well.

In the third chapter an examination of transportation technology concerning northern climes is discussed. The historical and modern aspects of transportation in Northern

Manitoba is delineated. The effect of the geography on the area is analyzed. Then the effects that various modes of transportation have on Northern Manitoba native communities are outlined.

Chapter four researches the various policies and programs put in place over the years by senior levels of government and their effects on northern native communities. Positive and negative impacts, as well as problems associated with transport provision, are detailed. The co-ordination of transportation with economic development closes out this chapter.

The delineation of the case study methodology is brought forth in chapter five. This chapter discusses the criteria for the selection of the study area and the proposed methods of analysis.

The sixth chapter deals with the present socio-economic development in the case study communities. A community profile is conducted for each of the four communities. Then the chapter closes off with an analysis of the real and perceived socio-economic impacts of an all-weather road transportation system on these communities.

Chapter seven provides the framework for the needed future direction of a comprehensive native transportation policy. Here an agenda of what needs to be done is discussed. From this, an evaluation of the options and alternatives is provided. Recommendations are put forth with reasons why certain actions are to be implemented.

The final chapter summarizes and reiterates the content and process of the thesis. The effects and implications of existing policies and future actions are stated.

Chapter II

SOCIO-ECONOMIC CHARACTERISTICS OF NATIVES: HISTORICAL TO PRESENT DAY ANALYSIS

2.1 Introduction

While this thesis focuses on the effect of government transportation policies on the socio-economic viability of northern native communities in Manitoba, it is advantageous to start with a historical perspective concerning Manitoba native peoples.

This chapter gives an historical overview of the socio-economic characteristics of native people in Manitoba from the past to the present day, in order to establish the groundwork for the problem at hand. The exploration of the historical background of natives in Manitoba -- from the origin of settlements to the establishment of reserves, -- reveals the events that have directly or indirectly affected native socio-economic status. By looking at the trends that have evolved over the course of time, and their consequences, an understanding of native problems can be developed. The effect that the various institutions have had on natives over time is examined.

The chapter then discusses the present socio-economic problems brought about by historic circumstances. Due to

the result of the socio-economic conditions facing these communities, the needs of the native people are brought forth.

It is shown that a lack of adequate transportation linkages poses a major constraint to the socio-economic viability of these native communities.

2.2 Origin Of Settlements

The theory of isolated settlements in Northern Manitoba or anywhere in Northern Canada for that matter, evolves from a number of factors. The native peoples who first inhabited North America were largely a nomadic people who were closely integrated with the natural environment. They were dependent on what that environment produced on a day to day basis.

> Large gatherings of people, on anything more than a temporary basis, were highly unlikely. Yet convenience, a desire for companionship and mutual support, undoubtedly produced the 'clustering' characteristic found in most societies. In many instances these 'clusters' were the origin of settlements today.[1]

With indigenous peoples, factors such as intersecting travel routes, the presence of game, migration routes of caribou and other big game animals, and access to productive fishing, played important locational roles in the establishment of native settlements in North America. Site requirements

[1] B. Gillie, "The Development of Settlements In The Mackenzie Basin," in HUMAN SETTLEMENTS AND RENEWABLE RESOURCES NORTH OF SIXTY, Seminar Proceeding, Occasional Paper No. 7, (University of British Columbia: The Center For Human Settlements, 1979), p. 17.

such as the availability of building materials and availability of land for building played important roles. The supply of water was very important, as waterways were the highways of yesteryear. Gathering places were selected on the basis that they would provide food for assemblage in the summer months. Furthermore, compact settlements offered additional advantages, as the physical environment could be conquered more easily and provide defensive and social advantages. Later, with the advent of the fur trade, location near a trading post came into play. The reverse was also true as trading posts would locate near the summer gathering places of the Indian tribes.

F. S. Hudson stated that "man's herding instinct more commonly leads him to settle in a compact village, consisting of individual family houses, but under a primitive economy, for example, one based on hunting and collecting, or on pastoral nomadism, no more than temporary encampments may be possible."[2] This held true for the early Indian settlers. It was not until the development of agriculture for subsistance that life could become sedentary. However a sedentary lifestyle was contrary to what the Europeans had established themselves in Hudson Bay for. When the European traders first came into contact with the Indians in the Canadian North, centers of development was the last thing on their minds. Development, which was incompatible with fur trad-

[2] F. S. Hudson, ASPECT GEOGRAPHIES: A GEOGRAPHY OF SETTLEMENTS, (Great Britain: Fletcher and Son, Ltd., 1976), pp. 37-8.

ing, would have overshadowed the primary objective of exploiting the natural resources for profit.

Yet with the fur trade, trading posts accentuated the semi-permanent character of Indian villages which located along a waterway near native settlements. These posts were to provide minimum disturbance to the natives, while sustaining enough attraction and providing welfare to keep the native trappers coming back year after year.

The work of the church, Roman Catholic and Anglican, also aided to the permanence of these settlements as their missions provided educational, vocational as well as religious activities. This attracted a large number of natives to these settlements.

These "raisons d'etre" of settlements substantiates the Center for Settlement Studies[3] hypothesis on human settlement, which stated that

> each human community has, in its beginning, a motivating principle. In most cases, development of some resource provides the driving force. As the resource is exploited, the people may form a community which is slowly integrated with the environment until it forms a viable social and economic unit. The transitory 'camp' becomes a permanent 'community'; the exploiters become citizens.[4]

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[3] The Center for Settlement Studies was a University of Manitoba interdisciplinary group formed to conduct research on the growing complexity of problems in human settlements, primarily in Western and Northern Canada.

[4] University of Manitoba, NATURE AND PURPOSE OF SINGLE ENTERPRISE COMMUNITIES, Proposal For a Long-Range Interdisciplinary Study of Isolated Settlements on Canada's Resource Frontier, (Winnipeg: University of Manitoba, 1968), p. 29.

The development of this type of settlement was common in Northern Manitoba as the initial concern of the European traders was to exploit a region that would give them maximum returns. Over the years the exploitation of Northern Manitoba changed from one of a fur producing region to one of mineral extraction. Along with this came a change of transportation routes made possible by technological advances. As a result, native settlements have remained relatively small due to the poverty and the limited capacity of the surrounding area to sustain viable fishing and hunting activities, as well as being isolated from the modern transportation routes.

In order to understand how the socio-economic situation of the aboriginal peoples of Manitoba came about, one must consider the historical perspective.

2.3 Historical Background Of Manitoba Indians

It is generally believed by anthropologists that migration to North America from Asia began around 40,000 years ago. The record of habitation by man in Manitoba goes back 12,000 years, when ice was in the process of retreat. By 5,000 B.C. the glacial ice had disappeared completely from Manitoba and Lake Agassiz had drained away.

The area that this thesis focuses on is Northern and North-Eastern Manitoba which is mainly located within the Pre-Cambrian shield , as well as within the Boreal Forest

zone. In the Boreal Forest environment, the native culture was that of a simple hunting and gathering society with stone tool technology. Hence, the nomadic Indians were mere hunters and gatherers when the French established their first settlement in Canada. The nomadic patterns were mainly focused on the migratory patterns of game and the fluctuations of fish in the numerous lakes and rivers. In order to survive, these non-sedentary self-supporting units were dispersed over a large area due to the nature of the resource base.

Up until the time Canada was colonized by Europeans, there were four major tribes inhabiting present day Manitoba. Firstly, along the coast of Hudson Bay, north of Churchill were the Eskimo. Secondly, inland from the Eskimo, generally north of the Churchill River in the north-west corner of Manitoba, wandering bands of Chipewyan (or Caribou) Indians lived. Thirdly, north of the Assiniboine River and east of the Red River, Lake Winnipeg and Lake Winnipegosis were the Cree. Fourthly, in the south-west corner of Manitoba lived the Assiniboine (or Stonies) Indians. After 1800, the Ojibway (also known as Saulteaux and Chippewa) infiltrated South-Eastern Manitoba, the area vacated by the Cree as they moved westward (see Figure 1). The Cree and Ojibway Indians, who were allied, formed the largest native groups in Canada. These two groups lived in isolated units extending from the Atlantic coast of Labrador in the east,

to Lake Winnipeg and Northern Manitoba in the west, to Hudson Bay and James Bay and the Hudson Strait in the north, and as far south as the St. Lawrence and Ottawa Rivers.

The Cree, being by far the most populous and dominant group of Indians inhabiting Manitoba warrant more extensive discussion. They were broken down into three sub-groups: the Lowland or Swampy Cree inhabiting the area between Lake Winnipeg and Hudson Bay; the Plains Cree who lived on the Prairies; and the Woodland Cree who occupied the forests between Upper Saskatchewan and Lake Athabasca. The Cree were more sedentary than the Assiniboine who followed the migrations of the buffalo. The northern areas were sparsely settled, with abundant fish and game. The main modes of transport were by canoe and on foot in the summer, and by snowshoe and dog sled in the winter.

The Cree in their nomadic aboriginal existance, were highly mobile, politically autonomous bands[5] who roamed the forests in search of game in the winter. "The basic building block of the Cree socio-cultural system is the family hunting band. Depending upon their size, these groups made up whole or parts of semi-nomadic agamous bands of the Cree."[6] The dominant family hunting band would comprise the

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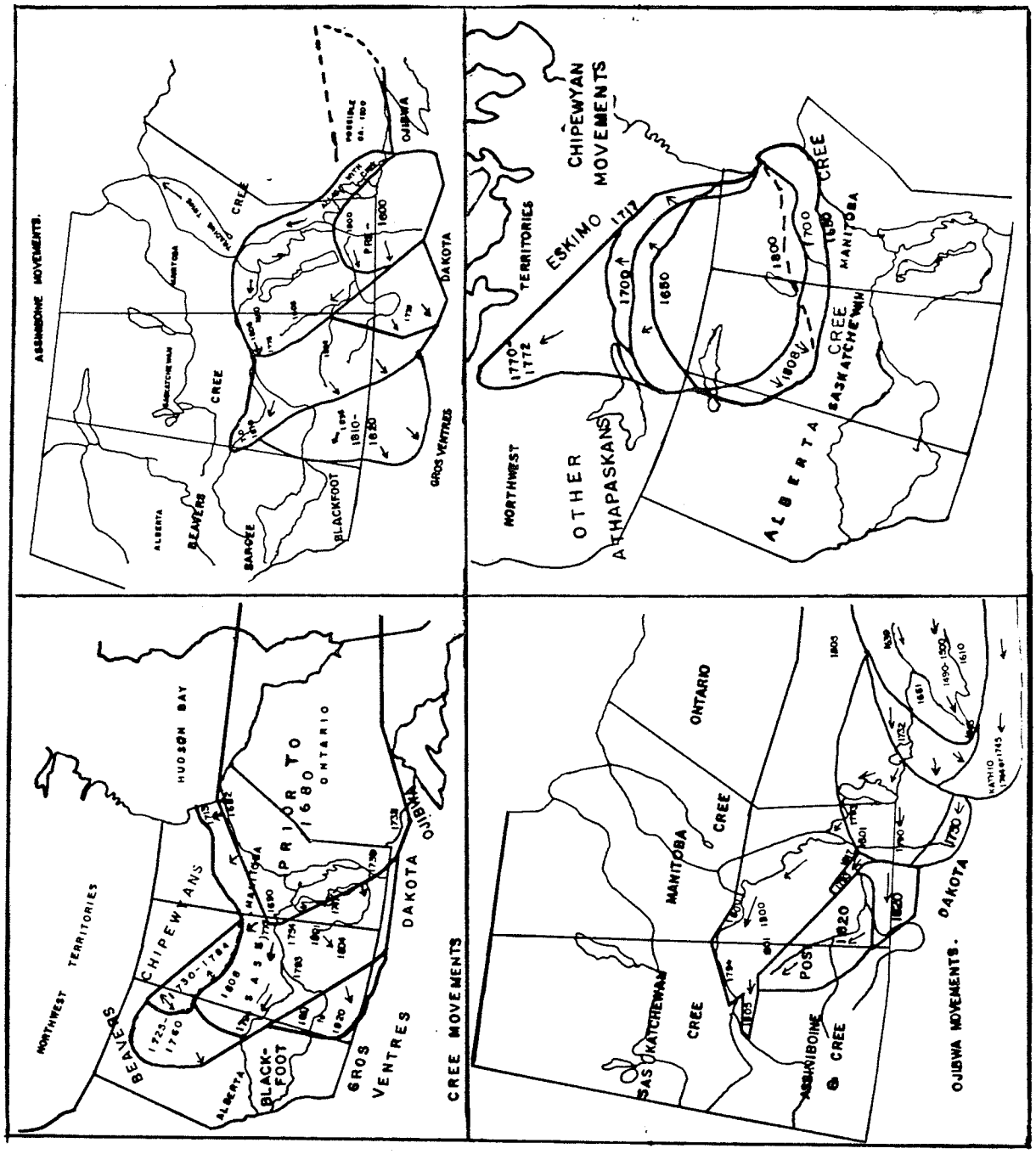
[5] The term band has been associated with a group of between 50-300 people. The identification by name is with a territory that is exploited, not necessarily for defence of it. Periodic meetings of the smaller segments of the band occur.

[6] A. D. Fisher, "The Cree of Canada: Some Ecological and Evolutionary Considerations," WESTERN CANADIAN JOURNAL OF ANTHROPOLOGY, Vol. 1 (Special Issue -- Cree Studies), No.

Figure 1: Manitoba Tribal Locations



Source:
Walter M. Hlady, "Indian Migrations In Manitoba And The West," Papers Read Before THE HISTORICAL AND SCIENTIFIC SOCIETY OF MANITOBA, Series 3, No. 17, 1960-1961, (Winnipeg: 1964), pp. 27, 33, 37, 41.

extended family, consisting of 2-5 families. The size of the group was usually limited by the availability of resources and the capability of the land to sustain them. Each band possessed their own hunting territory. The Indians were held together by extended kinship bonds and common needs, and the fruits of subsistance were shared communally. The evolutionary potential of the Cree society depended of the success of these family hunting units.

Being politically independent of each other, the bands were closely related to each other through intermarriage. The pattern of social organization, of which marriage was a primary evolutionary component, would come from other similar groups.

Wider and more extensive organizational patterns occured during the summer. They became semi-sedentary groups for 2-3 months of the year in the summer, when they would assemble on various lakes where communal subsistance activities of fishing, hunting, gathering and harvesting wild rice prevailed. This became a yearly cycle when they would gather at a favorable fishing location and then retreat into the forests in hunting groups of families as winter came to hunt and trap for a living. The short summer phase of the overall organization emphasized the importance of the other side of what A. D. Fisher termed "affinal dualism".[7] This summer phase

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1, (1969), p. 14.

[7] IBID., p. 15.

> contained the potential for 'higher' evolutionary forms of tribal organization and the basic necessity of the later fur trade organization, the rendezvous, travel and encampment around the trade fort, and the ceremonial exchange of European goods which complemented informal means of exchange within the family hunting band.[8]

These summer gatherings -- semi-permanent villages -- marked an evolution from nomadism to a sedentary way of life.

The Cree were first contacted by the White man at Hudson Bay in 1682, though the first European settlement on the Prairies was established at Port Nelson in 1612-13. The Hudson Bay Company (HBC) was formed in 1670 to extend the fur trade that was already established in Eastern Canada, to the vast area of the North-West. The HBC initially only established posts on the coast of Hudson Bay, around the Indian summer gathering places, in order to exploit the fur trade. European contact, synonymous with the fur trade, had the effect of shifting the Indian's role of subsistance to one of more specialization. The shift to the fur trade was a shift to "one crop" -- hunting for fur instead of hunting for a variety of foods and making their own tools as they were accustomed to do before the fur trade. Social organization began to revolve around the HBC trading posts as they became the focal point for summer aggregation in some areas.

In order to exploit the fur trade the HBC had to establish a line of posts. In 1682, the HBC established Fort Nelson at the mouth of the Nelson River (this fort was moved to York Factory on the adjoining Hayes River in 1684). In

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[8] IBID., p. 15.

1688, the HBC established Fort Churchill. The French had control of Hudson Bay from 1697-1713, until the Treaty of Utrecht returned possession of the Bay to the English. From 1732-1749, Sieur de La Verendrye established a string of French posts in the interior from the Lake of the Woods to the mouth of the Saskatchewan River at the north end of Lake Winnipeg (what is now Grand Rapids), which increased the competition with the HBC for the fur trade. The threat of competition from the French and the rival North West Company forced the HBC to establish a network of inland posts (the HBC built their first inland post at Cumberland House in 1774 on the Saskatchewan River). This action undermined the importance of the Cree and the Assiniboine as middlemen forcing the Indians westward. The Cree occupied a vast area as a result of this fur trade competition between the HBC and the North West Company and they spread as far north-west as British Columbia.

Trading posts in Manitoba were established with the different tribal groups using different posts. For instance, Berens River was visited by northern Ojibway in the 19th century; Island Lake and Norway House (constructed in 1826, moved from the post established in 1812 at Warrens Landing) were major posts for the Inland Cree. Oxford House (established in 1798), Brochet, Gods Lake, Sipiwesk Lake and South Indian Lake were other major posts established in Northern Manitoba that supplied the various tribes in the area.

This first contact with the Europeans in the mid 17th century was the first evidence of a different mode of production for the native people. The mercantilist mode reinforced the Indian subsistance way of life. Furs were acquired by the European merchants in return for goods that made the Indians more efficient and increased their capacity for fur production. The natives became more dependent on the traders as shown by their increased use of European manufactured goods. The new form of production then began to subordinate the Indians' traditional way of life, but still made use of it. This was indicative of the fur trade as alcohol and tobacco were used to absorb the Indians' excess purchasing power (by making them obtain more furs due to the consumption of more goods). The principle of a consumer society came into play.

After European contact the Indians adopted some ways of the more complex societies. They included the gun, the horse and economic stimulus such as were provided by the fur trade and the associated trading posts. Guns, horses and the introduction of various new technologies made the Indians more efficient hunters, increasing their yield, enabling them to buy more goods (ie. guns, ammunition, blankets, liquor, knives, traps, hatchets, kettles, tobacco, mirrors, etc.), thus becoming more dependent on the HBC.

The introduction of firearms provided the Cree with the stimulus to become even more expansive than their gradual

westward movement of before. The fur trade impelled the movement, and the gun enabled them to gain foothold before other tribes did. As the Cree moved westwards, the Ojibway moved northwards towards Hudson Bay into lands vacated by the Cree (ie. Lake of the Woods and east of Lake Winnipeg areas)

In North America, the horse was introduced by the Spaniards, to the Indians of New Mexico in 1541. Until the horse filtered up from the South in the early 18th century and trading posts appeared on Hudson Bay, there was little occasion for conflict as the Prairies were vast and game was abundant for the native peoples. Furthermore, they were less mobile in the North travelling by foot and canoe, and were less likely to come into contact with one another. As horses and firearms became abundant, fighting and animosities between the various tribes arose over hunting grounds and horses. This increase in mobility provided by the horse, increased Indian territory and pushed numerous bands westward in their competition for a common market (ie. the search for furs). The horse was more suited for the plains people, while the canoe remained more suited in the woodlands. Peace did not return to the Prairies until the animal herds were exterminated and the Indians were placed on reserves.

The European influences of the gun and the horse changed the peaceful existance on the Prairies even before any Euro-

peans settled west of Ontario. The gun and horse accelerated the extermination of the large game animals and the beaver at an extremely quick pace. "In the northern regions hunting tribes were induced to change from a subsistance to a commercial type of hunting, even though, with the greater killing power of the weapons they obtained from the European traders, they threatened their own basis of livelihood."[9] This wide-spread destruction of wildlife, resulted in severe consequences for the Indian people, as starvation became prevalent. Over-trapping led to serious consequences for bands in Manitoba as the fur trade shifted westwards. Consequently, Manitoba had to switch to a transportation role. Manitoba native people became increasingly dependent on the trading posts for supplies and in scarce times on handouts of food by the late 18th century. These were the first instances of welfare handed out to the Indians.

Not only did the Europeans introduce the gun and horse to the Indians' lifestyle, they also spread disease. In the 1780s, a smallpox epidemic spread all over the North. For instance, a smallpox epidemic reduced the Woodland Cree in 1784 and checked their further expansion (their expansion was also checked by the acquisition of firearms by other bands). A second epidemic of smallpox in the 1830's aided by liquor sold by the fur traders to increase fur volumes,

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[9] D'Arcy McNickle, "Indian and European: Indian -- White Relations From Discovery to 1887," in Owen, Roger C., James J. F. Deetz and Anthony D. Fisher eds., THE NORTH AMERICAN INDIANS: A SOURCE BOOK, (New York: The MacMillan Company, 1967), p. 264.

exacerbated the demise of the Indian people. The Indians remained scattered in whatever areas they found themselves after these disasters. Diseases such as smallpox, measles, influenza, diptheria, typhoid fever and tuberculosis were the silent killers of the Indians, and were part of the changing of the Indians' way of life. Thus disease, along with starvation contributed to the Indians decline.

The rapid expansion of the fur trade in the 18th and 19th century was dependent on the adaptation of the Cree more than on the technology and civilization brought by the HBC and the North West Company. "The period from 1775 to 1820 is one of intensive contact with the Indian tribes, particularly through the fur trade, but also through colonization and plain curiosity."[10] The market economy (the exchange of European goods for fur pelts), which was representative of the fur trade, directly affected the environment and subsistance pursuits of Indian culture as they became increasingly dependent on European goods for existance. "In all areas, a precarious balance existed between hunting for food and trapping, the chief means of obtaining trade materials necessary to both."[11] The fur trade established the initial force that changed the Indians' traditional way of life.

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[10] Walter M. Hlady, "Indian Migrations In Manitoba and The West," Papers Read Before The HISTORICAL AND SCIENTIFIC SOCIETY OF MANITOBA, Series 3, No. 17, 1960-61, (Winnipeg: 1964), p. 29.

[11] Charles A. Bishop, "Demography, Ecology and Trade Among The Northern Ojibway and Swampy Cree," WESTERN CANADIAN JOURNAL OF ANTHROPOLOGY, Vol. 3, No. 1, (1972), p. 63.

"The fur trade was a vital factor in the lives of the Cree-Ojibway. Their way of life has been altered drastically, and today they are linked intimately with Euro-Canadian society."[12]

Christianity, which accompanied or closely followed the fur trade, destroyed Indian religion based on their relationship with the natural environment. The missionaries played their part to change the Indian's original way of life when they built schools to educate native children in the European way. This took away the traditional learning provided by the parents. In Manitoba's case the government paid teachers at mission schools in Norway House and Nelson River as early as 1873.

In 1821 the HBC and the North West Company merged. This gave the HBC the monopoly it first experienced when it was formed. But an increase in settlements and transportation networks worked to the detriment of the HBC and made a monopoly increasingly difficult to maintain. Thus the period 1821-1870 brought to an end the political and economic dominance of the HBC. In 1869, the HBC gave its rights to its territory, Rupertsland, to the Dominion of Canada for a cash settlement and land concessions (#300,000 pounds and 1/2 of all townships -- 6,630,000 acres).[13]

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[12] Edward S. Rogers, "Band Organization Among The Indians of Eastern Subartic Canada," NATIONAL MUSEUM OF CANADA, Bulletin No. 228, Anthropological Series No. 84, (Ottawa: Queens Printer, 1969), p. 21.

[13] Russ Rothney and Steve Watson, A BRIEF ECONOMIC HISTORY OF NORTHERN MANITOBA, (Winnipeg: Manitoba Department of

2.4 Socio-Economic Background Of Manitoba Natives

2.4.1 Trends

Right from the first European contact the natives in Manitoba have been considered a minority group. Canada has a historical past of colonialism which included dominance over native peoples. "No real effort was made to give the northern natives control of their lives, and almost all programs were in the hands of the...missions, Hudson's Bay Company and the R.C.M.P."[14] As will be seen in this section, Indian society succumbed to the control of the paternalistic intervention of the Federal Government, which replaced the previous institutions of the trader, church, teacher and Indian agent.

With the annexation of Rupertsland to Canada, the West changed from a fur producing region to a grain and beef producing hinterland for the East. The Federal Government initiated a program that encouraged rural settlement in the West with the Homestead Act.[15] This settlement program brought thousands migrants in search of good farmland. Indians were viewed as an obstacle to the development of the West as they were thought of as inferior beings. This is

Northern Affairs and Resource and Economic Development, Sub-Committee of Cabinet, 1975), p. 17.

[14] Keith J. Crowe, A HISTORY OF THE ORIGINAL PEOPLES OF NORTHERN CANADA, (Montreal: McGill-Queens University Press, 1974), p. 153.

[15] The Homestead Act of 1872 provided 160 acres to settlers for $10 if they fenced, ploughed and erected buildings within a certain period of time.

evidenced by the French Canadian designation of Indians as "les sauvages." Indians.

2.4.2 Treaties: The Start Of Dependency

The Federal Government devised a policy of a reserve system in the 1870's, which acted to obtain "peaceful co-existance of Indians and settlers in the West and at promoting acculturation of Indians to the ways of 'white' society."[16] The point of view has been proffered that the objective of this policy was to remove the Indians from the land in order to prevent them from interfering with productive settlement and development.[17] To achieve this, land was to be set aside for the Indian people, and ensured in treaties. For giving up their claim to the land, the Indians were to receive certain rights, compensations and guarantees.

Economic and social pressures that would destroy the Indians' traditional hunting economy were highlighted as reasons for signing treaties. "The fears of the natives had been kindled. They could see a land rush developing in which they would be swept aside by these aggressive newcomers who appropriated the land, took the camp sites, ploughed up the trails, and drove off the game."[18] Therefore,

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[16] Canada, Department of Indian and Northern Affairs, "The Historical Development of the Indian Act," (Ottawa: 1978), p. 55 as quoted in Robert I. Miller, "The Indian Reserve System in Manitoba, 1870-1900", (The Hague: Institute of Social Studies, Thesis, 1981), p. 58.

[17] IBID., p. 58.

> the Indians of Manitoba...requested the treaties because they had become alarmed at the lessening of their supply of fresh-meat...and the threatened arrival of settlers on the lands which had been their hunting grounds.[19]

As settlers continued to pour into the province and settle all over it, the Indians saw treaties as an opportunity to secure homes, land and annuities for themselves and their children in the years to come.

In Manitoba, the first set of treaties was signed by the Dominion Government in 1871-1877 (see Figure 2). Under the terms of these treaties the Indians relinquished title to the land and were confined to a specific range. In return the Indians had the right to hunt, trap and fish for food on the land as long as it remained unoccupied Crown land. Annuities and gifts were to be paid in perpetuity to relieve starvation. This was the first form of assistance provided by the Government of Canada to native people. The reserves, according to Kathleen Mooney, were a form of neo-colonialism and consisted of both political and economic subjection. This has continued for over 100 years.

In Manitoba, Treaty No. 1 was signed in 1871; Treaty No. 2 in 1871; Treaty No. 3 in 1873; Treaty No. 4 in 1874; and Treaty No. 5 in 1875 (in 1909 and 1910 additional bands were included, see Figure 2). In signing Treaty No. 5, the Gov-

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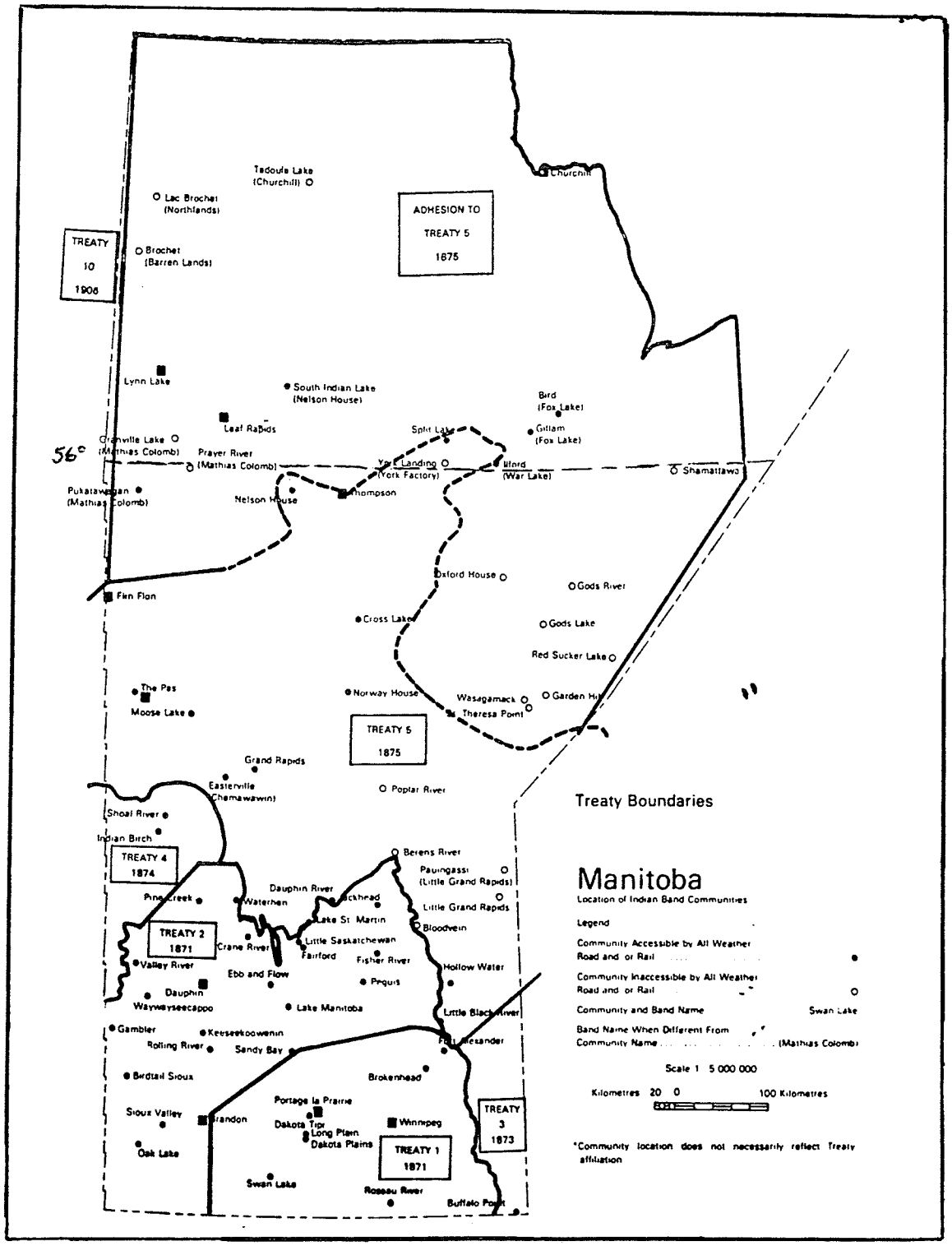
[18] W. L. Morton, MANITOBA: A HISTORY, (Toronto: University of Toronto Press, 1957), p. 116.

[19] Canada, Department of Indian Affairs and Northern Development, Indian Affairs Branch, INDIANS OF THE PRAIRIE PROVINCES: AN HISTORICAL REVIEW, (Ottawa: Queens Printer, 1967), p. 13.

Figure 2: Treaty Boundaries



Source: Canada, Indian and Northern Affairs Canada, 1987.

ernment of Canada obtained 100,000 square miles of land in Northern Manitoba from the Ojibway and Swampy Cree Indians. At first land was just obtained as far north as the 56th parallel (see Figure 2). This was due to the Federal Government's foresight in seeing the importance of waterways as the principal transportation and communication networks for developing the Prairies west of Manitoba. Also valuable mineral and timber resources were known in this area.

Land was alloted to the Indians to be set aside as reserves for housing and agricultural purposes. Reserves were granted to bands of Indians in the localities in which they were accustomed of living. Agricultural implements were given to them under terms of the treaties, in the hope that they would adjust to agricultural pursuits. Provision for the establishment of schools on reserves was also made, as prior to 1870 education was in the hands of missionaries. As R. I. Miller stated, these reserves met the government's objective concerning the native people of the country.

> It was a key concession to neutralize their opposition to the settlement program; it provided a basis for isolating them from settler society if conflicts should occur, and for fragmenting them politically and militarily should they take to armed conflict; the reserves purportedly laid the basis for an economic alternative to hunting, trapping and fishing, should these fail, for nothing else was more likely to make the Indians 'restless' than hunger, especially as they considered whites responsible for the destruction of their food resources.[20]

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[20] Robert I. Miller, p. 67.

The government saw agriculture as providing the means for the natives to feed themselves, so the government would not have to incur this expense. The quality of land given to Indians though, implies that the government could not have been serious in trying to turn the Indians into self-supporting farmers. One can assume that the government seemed satisfied with promoting subsistance farming on the reserves in order to get the natives to become self-supporting, through farming, hunting, trapping and fishing. The government avoided including prime farmland and mineral resource areas, which were destined for homesteading purposes. The reserves contained in Northern Manitoba (Treaty No. 5) were not suited to agriculture at all as they were marshy and rocky.

2.4.3 Government Policies Effect on Reserve Settlement

Even before treaties or the Homestead Act were instituted, measures were taken by government to decrease Indian influence. An 1869 Act declared that if an Indian woman married a non-Indian she and her children lost their status and annuities (this was recently changed in 1986). Also Indian influence was diminished as they were denied voting privileges (this was amended in 1960). Furthering this subservient role was that Indians, through the Indian Act of 1876,[21] could not take up homesteads (it was designed to

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[21] The Indian Act of 1876 consolidated all legislation on Indians included in the BNA Act (1867) into a single act of parliament. The Act was rewritten in 1951.

prevent Indians from owning a part of the reserve and a homestead) and they could not give up their Indian status (enfranchisement) whereby they would acquire private title to their portion of the reserve.

By 1879, the Indians in Manitoba were largely settled on the reserves and at least the southern reserves were engaged in agricultural pursuits. The function of Indian Agents, instituted in 1875, was to act as the middlemen between the government and the Indians to administer the affairs of the reserves. Then the formation of the Indian Advancement Act of 1884 was an attempt by government to set up a form of band administration. The government encouraged bands to adopt the electoral system of choosing chiefs and councillors, while retaining power to dispose of them if the government considered them "unworthy". The Indians on the other hand did not have the power to dispose of people who they viewed as unworthy. These bands are regarded by some as artificial administration units.

The government took a more active position in the affairs of Indian bands in Southern Manitoba. The government had reached its initial goal of establishing reserves to get Indians away from productive development and settlement in Western Canada. Once the Indians were placed on the reserves, the government wanted to privatize the reserve lands (where one would receive individual title to lots on the reserve) so the Indians would have to pay taxes and

become assimilated into the white man's culture. In addition, the reserve lands would be broken up. Needless to say, most bands declined this.

The government indirectly tried to affect Indian assimilation into the dominant white culture through the schools and missionaries. The schools and missionaries had the goal of trying to "civilize" or assimilate Indians into the ways of the white society by cultural re-conditioning of the children. Here values and beliefs were to be altered to those of the dominant society.

Indian reserves came under increasing pressure as settlers took up the available land. Legislation of 1894 and 1895 allowed the government to lease Indian land without band consent. In 1906 and amendment to the Indian Act allowed 50%, instead of 10%, of the proceeds of land sales to be given directly to the band in question. This encouraged the sale of more reserve land.

Some treaties have remained unfulfilled (ie. full land entitlement) in both Northern and Southern Manitoba. Reasons for this were inaccurate population statistics, and in 1930 control of natural resoures was transfered to the Province from the Federal Government, now contained in the Manitoba Natural Resources Act (MNRA). Manitoba did not have control of its lands and natural resources in 1870, as they were administered in the national interest. Land entitlement issues were postponed as the senior levels of govern-

ment argued who was responsible. As it stands now, the Provincial Government has to make land available to the Federal Government to fulfill Indian treaty obligations. In 1984, 23 bands in Manitoba were owed more land and 5 additional bands were under review.[22] The Treaty and Aboriginal Rights Research Center indicated that contemporary population figures should be used to fulfill treaty land entitlements.

The government was not all that interested in the northern reserves initially and was willing to leave them alone, as they were fairly remote and isolated from settlement and development to effect it. Indians living north-east of Lake Winnipeg and in Northern Manitoba, therefore, were not affected by the changes that took place in Southern Manitoba after 1870, as their economy still centered on the fur trade through Hudson Bay.

For the most part, the remote northern bands' only involvement with government came in the form of annual visits of the Indian Agents, who made treaty payments. These bands did not adopt the forms of band administration laid out in the Indian Advancement Act of 1884.

Traditional pursuits continued to play an important part in the Indians' economic life in Manitoba, even though the government was persistent in promoting reserve farming right from the beginning of the treaties until the early 20th cen-

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[22] Treaty and Aboriginal Rights Research Center, A DEBT TO BE PAID: TREATY LAND ENTITLEMENT IN MANITOBA, (Winnipeg: Treaty and Aboriginal Rights Research Center, 1984), p. 18.

tury. Fishing, hunting and trapping along with the casual (seasonal) wage labour were the main economic activities on reserves that were unsuitable to agriculture. Indians participated, on a part time basis, in agriculture, railroad construction, road building, forestry, fishing, mining and so on in order to subsist.

Indians' traditional lifestyles were modified, but not destroyed by the market economy introduced by the Europeans. The resilience of the traditional way of life deviates from the capitalist-model contained in R. I. Miller's thesis. Miller's thesis stated that the third and final stage of the transition to capitalism[23] is where a total disappearance of the pre-capitalist mode is evident. The Indian traditional mode of production in Canada has been preserved, though in a modified form. Indians were able to remain partly independent of the market economy because they realized that they would not be able to support themselves on their traditional resources, so they supplemented their traditional lifestyles with part-time wage labour. This is evident more so in the South than in the North. But,

> a popular view among Whites is that while Indians' cultural traditions (modes of sharing, loyalty to community and extended kin, religious beliefs, etc.) are very fine and worthy, they are not in keeping with the requirements of 'modern industrial society.' It is commonly thought that clinging to the traditional values has contributed to Indians' failure to 'adapt' to these conditions, and thus one cause of their present low economic status.[24]

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[23] Robert I. Miller, p. 37.

Thus the resilience of the traditional way of Indian life evident after 1870, is viewed by the dominant society as one of the reasons for their present socio-economic status.

Though Canadian Indian policy has been to protect, "civilize" and assimilate natives in Canada, the coercive aspects -- economic, political and ideological -- of the government had as its goals the termination of the reserve system in order to rid itself of the political liabilities involved. The government also wanted to rid itself of the cost of Indian administration. In the long run, that goal never came to fruition.

2.5 Present Socio-Economic Characteristics And Problems Of Natives

The socio-economic characteristics and quality of life experienced by the native people in Canada today are much worse than the rest of society.

> The critical question is not whether or not we think the Indian people should have a higher standard of living through participation in wage employment, but rather whether they in fact aspire to a higher standard of living and are willing to realize it through involvement in modern labour markets.[25]

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[24] IBID., p. 112.

[25] Glenn Fields and Glenn Sigurdson, NORTHERN CO-OPERATIVES AS A STRATEGY FOR COMMUNITY CHANGE: THE CASE OF FORT RESOLUTION, Series No. 2, Research Report No. 9, (Winnipeg: Center For Settlement Studies, 1972), p. 11.

In fact, Canadian native communities have become dependently attached to the national socio-economic system through wages, trade and subsidies. Employment is seen by many as the critical factor in the acculturation of natives into the dominant white society.

2.5.1 Acculturation: Transition of Native Peoples

Acculturation is the process of change which occurs when two cultures meet. There are varying degrees of acculturation. A general principle in sociology states "that the greater the degree of cross cultural influences between a minority group and the dominant society in which it exists, the greater the probability that the cultural patterns of the minority group will take on similarities with the dominant culture."[26] It was taken for granted that natives would become integrated into the dominant culture in a few generations, just as the European immigrants were. However, there is a tendency to forget the differences between natives and Europeans. "European immigrants all came from the same general stream of Western Culture and they, by and large, were motivated toward assimilation when they migrated to the"[27] New World. European immigrants hold much the same

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[26] Paul Deprez and Glenn Sigurdson, THE ECONOMIC STATUS OF THE CANADIAN INDIAN: A RE-EXAMINATION, Series No. 2, Research Report No. 1, (Winnipeg: Center For Settlement Studies, 1969), p. 35.

[27] Evon Z. Vogt, "The Acculturation of American Indians," in Owen, Roger C., James J. F. Deetz and Anthony D. Fisher, eds., THE NORTH AMERICAN INDIANS: A SOURCE BOOK, (New York: The MacMillan Company, 1967), p. 637.

values and ideals that North Americans do, while natives do not. North Americans have predominantly a Protestant ethic of individualism, while natives on the other hand have a collective ethic.

The push towards acculturation to the Protestant ethic has caused conflict in native people. However, this conflict differs in southern and northern communities, as R. W. Dunning experienced. Dunning stated that southern reserves have been acculturated into the Canadian society, much more than the northern ones, resulting in a loss of their indigenous systems (social identity and traditional culture) to a large degree. This is due to a greater level of accessibility to the dominant society. The northern reserve communities, being more remote and isolated, seem to function with their indigenous social structures more or less intact, as the acculturation process is less pronounced. Although this is becoming less so as the North is made more accessible.

Paul Deprez, also believed that cultural exposure is more pronounced for the reserve and Metis communities that are more accessible to the main white centers. But on the other hand, he stated that cultural awareness is not so much dependent on geographical location as television, newspapers, radio, telephones, movies and other forms of communication are available in the native communities. This awareness, while indifferent to location, is more prevalent in the native youth as they participate and are a product of

one of the most basic institutions of white society, the educational system.

Deprez noted that natives have to become involved in the more productive economic activities. Gordon B. Inglis and others argued that the acculturation process has placed natives in a transition stage between their aboriginal state and full integration into the larger society. Being more prevalent in the North, this transition from traditional pursuits to modern activities has social, psychological and cultural ramifications. Therefore, the decision to alter lifestyles and become more acculturated has to be "inner directed". "If the Indian is ever able to successfully cope with the society in which he is now an alien, he must encounter that society on his own terms."[28] All to often the dominant white society has imposed their terms on natives (both private and public sectors have done this) which contributes to the alienation faced by natives.

The failure of natives to obtain full employment, some feel, is due to their cultural background. This tends to deepen the transition stage faced by natives. The theme is further expounded upon by H. I. Redekopp in his thesis on northern native communities in Manitoba. Redekopp quotes a report by Jean H. Legasse entitled, THE PEOPLE OF INDIAN ANCESTRY IN MANITOBA (1961) that states that "the traditional culture with its value systems and attitudes, with reference to permanent employment as practiced by Whites, tend to

[28] Paul Deprez and Glenn Sigurdson, p. 11.

perpetuate itself from 'generation to generation regardless of the few individuals who may deviate from it.'"[29] This shows that there is little deviation away from the traditional way of life by native people over the years. These cultural factors still exist today, albeit to a lesser extent. Native kinship ties may also provide a negative influence to economic development as their traditions expect them to share with and care for their relatives and extended family.

2.5.1.1 Migration: Push/Pull Factors

Voluntary migration of Indian and Metis to employment areas (primarily Winnipeg) provides a solution to the unemployment problem facing many reserves and Metis Communities in Manitoba. But it is realized that natives for the most part are not willing to migrate to white settlements. The options for the natives are: they can leave the community in search of work, or they can stay and collect public assistance supplemented by income derived from diminishing traditional resources. Deprez in his study found that there was more out-migration from reserves that had greater accessibility than there was from the remote reserves.[30] This also increased over time. Deprez stated that out-migration from

[29] Jean Legasse, THE PEOPLE OF INDIAN ANCESTRY IN MANITOBA (1961), p. 86 as quoted in Harold I. Redekopp, "An Analysis of the Social and Economic Problems of Four Small Communities in Northern Manitoba: Wabowden, Thicket Portage, Norway House and Oxford House," (Winnipeg: M.A. Thesis, University of Manitoba, 1968), p. 178.

[30] Paul Deprez and Glenn Sigurdson, pp. 26-7.

more accessible reserves was a result of the poverty that existed on the reserves, rather than the attraction of employment opportunities in the cities. He saw it as a push factor rather than a pull factor. One reason offered is that younger Indians are more sophisticated, both culturally and educationally, and express a desire to leave the traditional activities of the reserve. Out-migration on isolated reserves, being more economically dependent on self-sufficiency of traditional activities, is seen as a pull factor to what cities have to offer. This is changing to the first case as communities become more accessible.

Inglis stated that there were both incentives and constraints (push-pull factors) for staying on the reserve or for migrating to another location. Some reasons for staying on the reserve were: sentimental attachment to the people, free subsidized housing, and financial benefits such as no taxes. While the disincentives for remaining on the reserve were: lack of employment, factionalism and quarrelling. Reasons to move to another location were: the opportunity for employment and income, access to entertainment facilities, and better housing and services. Reasons for not moving were: lack of qualifications for employment, fear of discrimination, lack of knowledge of relational systems beyond the reserve, inhibition of geographical mobility restricting employment opportunities, and the fact that inertia makes it easier to remain where one is rather than

move.[31] While this is not a complete list, Inglis disclosed that if advantages and disadvantages of staying or moving were nearly balanced, the individual would likely remain. A negative aspect of migration from reserves and Metis communities to large urban centers is that significant social costs are incurred.

2.5.1.2 Forced Migration

The mentality of the government in the 1950-1960s though, favored forced migration. The government believed that by moving people to new places for hunting or employment their economic situation would be resolved. This was not the case though, as witnessed by the forced relocation of Chipewyan Duck Lake Band to Churchill in 1957, which resulted in despair, drinking and violence. In 1971, the band moved to Tadoule Lake in an attempt to regain their peace and dignity in a traditional way of life.

Forced migration has all too frequently been the coerced result of world and national forces. It has resulted in involuntary, cruel and wasteful migration. The implied (involuntary) forced migration was viewed as unsatisfactory. The belief in forced migration as a solution, has changed in the late 1960s and early 1970s to one of allowing people the freedom to live in any area and undertake whatever activity they want to. This trend was apparent in a 1969 report done

[31] Gordon B. Inglis, "The Canadian Indian Reserve: Community, Population and Social System," (Vancouver: Departments of Anthropology and Sociology, Ph. D., University of British Columbia, 1971), p. 199.

for the Government of Manitoba entitled the REPORT OF THE COMMISSION ON TARGETS FOR ECONOMIC DEVELOPMENT (T.E.D. REPORT). It was expanded upon in a latter Government of Manitoba document, published in 1973, entitled GUIDELINES FOR THE SEVENTIES. Under the terms of these documents, the concept of the Stay Option was devised (refer to section 4.7).

2.5.2 Viability of Native Communities

In the small and scattered (mostly isolated) communities in the North the population consists mainly of native peoples. Many of these Metis communities and Indian reserves in Canada share the following:

> a seriously inadequate economic base, a rapidly growing population and a social pattern of deviancy -- high rates of dependency, alcoholism, and so on. Where predominant, that pattern is not compatible either with the effective operation of a complex industrial social order, or with prevaling Canadian social norms -- which come to much the same thing.[32]

Therefore, most reserves and Metis communities have a general economic pattern of a marginal economy. Most of these settlements lack economic resources -- real or potential -- to support a fraction of the population at a level of living comparable to accepted Canadian standards. For the communities that have no economic potential there is only one way out -- migration to towns and cities with greater economic and educational activities. People are forced to leave

[32] Arthur K. Davis, "Toward Mainstream," WESTERN CANADIAN JOURNAL OF ANTHROPOLOGY, Vol. 1 (Special Issue -- Cree Studies), No. 1, (1969), p. 100.

these communities.

Even though Indian and Metis people are migrating into the urban mainstream, there are still those who stay behind by preference or by necessity in the rural communities and reserves. Needs and problems have risen in these native communities as many residents are reluctant to leave these declining areas, choosing to remain in the settlements they refer to as home. Therefore the community is unlikely to disappear, resulting in high unemployment with a labour force that is unskilled, under-educated and has a low per-capita annual income.

The small native communities usually have a basic economy with very little secondary or tertiary development. Wage employment opportunities are limited and often revolve around government services. As a result, most native communities lack a viable resource base as the important traditional activities of fishing and trapping are diminishing, while more people pursue this type of activity. Consequently, per-capita income is down (see Table 1). The Commission on Manitoba's Economic Future (COMEF)[33] noted the need to reduce the number of fishermen in the early 1960's, in which the majority are native in Northern Manitoba. In order to reduce the number, other employment pursuits would have to

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[33] COMEF was formed in 1961 to promote and accelerate growth of development of Manitoba's economy. COMEF's goals were: to provide an improvement in the standard of living for everyone; full employment; an increase in the relative share of national growth; and a reduction of out migration of the 25-44 age groups.

Commercial Fishing Production (Round kg), Total Value and Employment (Licensed Fishermen Plus Hired Men), 1976-1977 to 1983-1984

	Northern Lakes		Lake Winnipeg		Lake Manitoba		Lake Winnipegosis		Other Lakes		Manitoba Total		Total
Year	Weight (kg)	Value ($)	Weight (kg)	Value ($)	Weight (kg)	Value ($)	Weight (kg)	Value ($)	Weight (kg)	Value ($)	Weight (kg)	Value ($)	Employment
1976-77	3,087,550	2,094,250	4,497,750	5,226,850	1,059,850	849,850	823,650	444,700	1,228,000	888,350	10,696,550	9,504,000	2,953
1977-78	3,418,800	2,395,000	4,764,950	5,175,650	1,726,150	566,850	2,013,900	821,700	1,286,050	828,550	13,209,850	9,787,750	3,170
1978-79	2,915,500	2,629,000	4,949,100	5,765,300	1,535,500	713,350	2,462,000	1,022,050	1,577,650	1,425,900	13,439,750	11,555,600	3,161
1979-80	3,679,500	3,261,500	5,258,100	7,642,850	2,921,450	2,790,950	2,926,000	1,337,750	1,846,400	1,919,450	16,631,450	16,952,500	3,213
1980-81	3,474,300	3,576,200	5,652,800	9,066,800	2,330,400	2,270,950	3,172,650	1,375,200	1,816,100	2,346,750	16,446,250	18,635,900	3,659
1981-82	2,880,150	3,344,350	5,929,100	9,935,800	2,637,850	2,462,900	1,873,250	972,450	1,320,150	1,802,650	14,640,500	18,518,150	3,767
1982-83	2,732,850	2,252,500	5,446,900	6,963,800	3,290,800	1,825,900	2,550,350	1,096,900	1,446,900	1,235,750	15,467,800	13,374,850	3,826
1983-84	2,167,250	2,431,650	5,502,100	8,871,650	2,457,500	2,224,700	1,859,550	1,266,900	1,218,950	1,582,650	13,205,350	16,377,550	3,737

***NOTE:** Total value includes both initial value and final payment.*
Commercial fishing statistics were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

Number of Open Area and Registered Trappers and the Estimated Value of Manitoba Wild Fur Production for the Year Ending August 31[1], 1985

Year	Open Area Licences Sold	Registered Trapline Permits Sold	Production Value
1975-76	6,492	2,680	$4,248,272
1976-77	8,602	2,879	5,528,268
1977-78	8,379	2,975	5,047,377
1978-79	10,040	3,238	7,882,404
1979-80	12,809	3,627	9,625,604
1980-81	13,327	3,425	8,240,619
1981-82	13,072	3,187	5,564,491
1982-83	13,938	3,110	4,313,572
1983-84	12,110	2,927	3,783,562
1984-85	12,917	2,974	4,764,525

[1]In 1981-82, the department's fur year was changed to the 12-month period ending August 31st. The information for all previous years is based on the 12-month period ending September 30th.

Source:
Manitoba, Department of Natural Resources, ANNUAL REPORT, 1985.

be provided for. Over-fishing is still a problem today though, aided by the fact that stocks are becoming rapidly depleted and an adequate standard of living cannot be reached with these levels. Transportation costs and inaccessibility are the main deterrents to Northern Manitoba's fishing industry, even though COMEF's recommendation of a Freshwater Fish Marketing Corporation was implemented in 1969 to make the industry more efficient. Fishing accounts for most of the income derived by these people. Trapping is mainly seasonal and the small returns do not allow for an adequate standard of living, therefore it supplements other forms of income.

High natural birth rates, high unemployment, underemployment, high family size, low economic status, low educational attainment, poor housing conditions and high welfare assistance are all characteristics of most native communities. All in all there are too many inhabitants and too few resources in these communities.

2.5.2.1 Disparity of the North

Native communities, over the years, have been deteriorating. Major problems related to the northern native communities are the increasing population base due to natural birth rates, dwindling traditional resources, accompanied by an increase in the number of trappers and fishermen which produces an inadequate return on income, and no industrial development to replace the traditional pursuits. There is a

disparity between the North and the rest of the province, but more specifically between the native North and the industrialized North. "The concept of a 'dual economy' has been evoked to characterize the Canadian North, with a native North that is predominantly rural, isolated, backwards and tradition-bound, and an urban (ie. white) North that is aggressive, innovative, accessible, modern and industrial."[34] The dual economy of the North, characterizes the traditional sector with low incomes and the mineral production sector with high incomes.

At the end of the First World War, the Canadian North was being drawn into the modern life of the South as industry and transport networks began to open up its vast reaches. However, even though technological advances in the late 19th and early 20th centuries sped up the advance of the white man into the Canadian North, reducing the isolation of northern native communities, the deployment of industry did little economically for natives. Natives are usually the last citizens to receive the material benefits of a modern North American society (ie. schools, roads, hospitals, stores, and other various goods and services). Economic and geographical isolation of native communities were being reduced (ie. new schools, outpost hospitals, family allowances and other services) but they still lagged considerably behind the rest of the nation.

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[34] Robert I. Miller, p. 3.

The dual economy of the North, which has important implications for transport system design, has been evident ever since 1930 when the North was seen as a hinterland for mineral resources; prior to 1930 it consisted mostly of small native communities. Since then, its rapid expansion has been due to mineral resource developments. Most of the increase in population in the northern urban centers came through immigration from the South and outside the province. The native communities also grew, but mainly through natural increase.

Northern native communities for the most part had not participated in the economic growth experienced by the mining centers. Yet, a great deal of social ramifications were incurred by the native peoples. Through industry, hydroelectric dams, transmission lines and transportation networks "the Indians [saw] their hunting and trapping grounds dwindling which [forced] them into the aggressive, mechanistic, materialistic white society."[35] The course of reducing hunting and trapping boundaries further undermined the economic viability of natives along with the increase of the white trapper. The inequitable gap between the two Norths continues to remain with little hope of lessening.

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[35] Jim Lotz, NORTHERN REALITIES: THE FUTURE OF NORTHERN DEVELOPMENT IN CANADA, (Toronto: New Press, 1970), p. 156.

2.5.2.2 Welfare Economy

Relief rations were handed out from the Turn of the Century to natives who faced hardships. This system of welfare contributed to the loss of independence of the native people.

Furthermore, industrial activity in the North brought changes to the native people. "For some, it has meant new employment, for others yet another invasion of their land and customs."[36] The new style of settlements and cash income changed the traditional way of life for many natives. It directed them away from their traditional way of life to employment created that was temporary and seasonal. While it was beneficial in the short-term a lot of it may seem detrimental in the long-run. For instance, the closing of construction sites (ie. railroads, roads, hydro sites, etc.) left many natives without wage labour. They had to return to the land for support, but the land could not support them in many instances. The natives also were not willing to return to their former way of life, as they were not interested or could not because of a loss of skills and equipment. The government was forced to step in and provide assistance in the form of welfare, pensions and family allowances.

> The combination of population pressure and the limited productive potential of the traditional employment pattern has undermined the viability of the Indian community forcing it to rely upon government assistance. This government assistance is

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[36] Keith J. Crowe, p. 183.

> thus a symptom of the fundamental deterioration of the economic base.[37]

Natives have come to rely on this assistance and see government as their best and most reliable resource. Due to remoteness and lack of economic opportunities, welfare has become the main resource in the community. Some natives may be "developing a taste for social aid because these returns appear to be steadier and/or higher than those derived from the traditional pursuits."[38] Welfare is becoming a major source of income for northern native communities as the increasing population becomes more and more dependent on the government for assistance. Particularly as a result of government providing money to the natives, a welfare economy has been established. Income from traditional pursuits supplement welfare payments. Welfare is seen as a compelling alternative to the sub-marginal existance that faces many natives today. "One of the principal inhibiting factors in stimulating employment activity amongst the poor is the narrow and often non-existant dollar differential between welfare income and wage income."[39] Where welfare is the only community resource, the Manitoba Metis Federation (MMF) recommended that programs be established to meet community requirements and needs (ie. infrastructure, housing rehabil-

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[37] Paul Deprez and Glenn Sigurdson, p. 5.

[38] Harold I. Redekopp, p. 198.

[39] Manitoba Metis Federation, IN SEARCH OF A FUTURE, Submission on the Migration of Native People by the Manitoba Metis Federation, (Jan., 1972), p. 53.

itation, etc.).

2.5.2.3 Economic Outlook

Natives in general face a deteriorated economic base in their communities with limited economic opportunities available to the growing population. The natives' income as a result of this is among the worst in the country, well below the national average. The average incomes show wide discrepancies between the urban North and the native North. The only choice they have is to stay behind and collect social assistance and trap, fish or both, or migrate to urban centers in search of employment. There is a surplus of natives who are unemployed and underemployed due to their lack of unsaleable skills. When they do have jobs, natives have been found to occupy the lower status unskilled jobs. They also display lower occupational variety, indicating less opportunity. Compounding this problem is the fact that the wife is less likely to be working compared to non-native families. These characteristics portray the majority of native settlements, more so the remote ones.[40]

Since native families have on average larger families and households than the rest of Canada, their rampant unemployment adds an additional strain on them, as their dependency ratio (the ratio of dependent persons 0-14 and 65+ to labour force population 15-64) is considerably higher than that of

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[40] For more information see Canada, Statistics Canada, CANADA'S NATIVE PEOPLE: 1981 CENSUS OF CANADA, (Ottawa: Minister of Supply and Services, 1984).

the rest of the nation with approximately 50% of the native population being under 15 years old. A decline in the dependency ratio would improve native economic conditions and raise their per-capita standard of living. However, it must be noted that a substantial number of the productive age group (15-64) are unemployed, therefore increasing the economic burden on the remaining labour force. The effects of unemployment, due to lack of job opportunities and the surplus of unskilled workers, can be seen in the increase in welfare assistance to native communities. This demand for social assistance could increase if the employment levels do not improve in these communities, as there are increasing levels of population entering the labour force. As was stated before, employment was considered the key to acculturation of the native population into the dominant society. It is, as Deprez saw, a necessary requirement for economic development. However, most native communities lack the necessary employment opportunities to fulfill this need.

2.5.2.4 Education

The institution of education, a basic building block of the dominant society, is job oriented and is predicated among others to the premise that work is a basic goal of society. The native who is subjected to white man's educational system becomes culturally pluralistic. Natives view social mobility and occupational achievement via education less important than the dominant society. This creates a

major stumbling block for the native people. This view may be a result of the fact that natives held onto their traditional cultures, which have prevented them from fully adopting the dominant culture of North America. Accentuating this problem was the fact that education in the North at first was just a transfer of southern ways without any regard for native culture. This created a large drop out rate. In any event, the retention rate of native students is considerably below Canadian levels. A major problem of the low retention rate is that this more than likely will have serious implications on the employability of young natives entering the labour force.

It was not until recently that the cultural differences between natives and the dominant society have been fully recognized by the educational system. Only time will tell if, as a result of this, the native population will become better geared to enter the labour force. A lack of education is seen as the root of all native problems. Education is the necessary framework for success in all aspects of development, be they human, social or economic.

The Manitoba T.E.D. REPORT noted that a solution to the Manitoba native peoples' "unemployment problem may require both training and breaking down lack of mobility."[41] Unemployment being the major concern of the unskilled and less mobile native group, the T.E.D. REPORT stated that education

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[41] Manitoba, MANITOBA TO 1980: REPORT OF THE COMMISSION ON TARGETS FOR ECONOMIC DEVELOPMENT (T.E.D. REPORT), (Winnipeg: Department of Industry and Commerce, 1969), p. 22.

and training are the first steps to be taken towards the improvement of their condition. But training, according to a 1972 report undertaken by the Manitoba Metis Federation,[42] has become an end in itself, as most natives are unable to find employment afterwards. A "catch-22" situation has developed here, as in order to maximize educational efforts of the natives, employment opportunities have to be created. These for the most part are non-existant, but are increasing with affirmative action policies directed towards natives.

2.5.2.5 Housing Conditions

The socio-economic situation is being exacerbated by the absence of the provision of the basic necessities of life. Many communities face an uncertain future caused by a declining economic base and out-migration, but for those who remain housing is a major problem and is on the whole inadequate. An adequate provision of housing should be enforced. People should not need to live in less than adequate housing just because they live in a remote community. Traditionally housing in northern native communities has been inferior to the rest of the province and of poorer quality: there is a large percentage of homes that are overcrowded, too small and in needing of major repairs. This indirectly has affected the health of native peoples; overcrowding gives rise to family frictions. Most houses lack basic services: running water, indoor flush toilets, sewage disposal, and

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[42] Manitoba Metis Federation, IN SEARCH OF A FUTURE, p. 4.

have the lowest number of rooms compared to the provincial average. In summary, they lack modern facilities utilized by the majority of the population of Manitoba.

Another problem is that, as the native population (which is younger than the Canadian average) gets older, housing demand is expected to increase dramatically as new family formations and single parent families (also above the national average) exert pressure on the market. "For the native population in the North already subsisting in less than adequate conditions, the failure has been lack of means to upgrade existing stock and to create new stock where necessary."[43] The GUIDELINES FOR THE SEVENTIES document, called remote housing an immediate concern 15 years ago, and called for a program for the establishment of pre-fabrication plants in a number of semi-remote areas, like the Northern Manpower Corporation's pre-fab plant in Churchill.

Housing design also causes problems as they are not designed for northern conditions. The designs are commonly just transplanted from the South. Appropriate housing, conducive to the conditions of the North would enhance the quality of living experienced by all northerners. Both the T.E.D. REPORT and GUIDELINES FOR THE SEVENTIES acknowledged this.

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[43] Manitoba, Planning Secretariat, GUIDELINES FOR THE SEVENTIES, Vol. 2, (1973), p. 69.

2.5.2.6 Health and Social Services

Health and social services in the native communities are not up to par with the rest of the province, which is indicated in the higher mortality rate for native people (infants up to 1 and males 15-44 are the high risk groups). The 1900's marked an ever increasing amount of medical services being provided to combat the diseases that were facing natives, but, infact, government provision of these services to reserves and Metis communities in the North were basically non-existant until the mid 20th century. It was at this time that government wanted to provide universal education and social welfare to northerners that would bring them in line with the South. Government agencies provided programs to improve native health, education and welfare. Nursing stations began to appear after the war in almost every settlement. Tuberculosis, smallpox and other diseases were nearly eradicated, but the occurrence of some other diseases increased (ie. venereal disease).

Access to health and social services in the North though, are hampered by the geographical layout of the region, hence the difficulties of providing consistent and adequate health and social services. The GUIDELINES FOR THE SEVENTIES' goal was to provide access to a wide range of services that financial constraints would allow for. The Manitoba Government also undertook a policy to de-centralize government administration and services to provide a more broadened eco-

nomic base to communities, to bring government programs closer to the people and to be more responsive to local needs. Their goal was to provide an adequate level of income, shelter, nutrition, education, transportation, recreation and health care [ie. The patient air transport (PAT) program was implemented in 1972 in hope of reaching this goal. This program provides payment for air ambulance service in remote areas of Manitoba]. All these things are essential in maintaining the physical, mental and social well-being of people. While this attempt has helped to improve the condition of northern native communities, it still has a long way to go, as can be seen by the prevailing conditions that plague northern native communities in Manitoba.

2.5.2.7 Image

Another problem that natives have to endure is one of image. Natives have to overcome the negative image held by the dominant white society which further restricts their entry into the mainstream. For instance, in resource based communities natives were often not hired, or to a limited extent, because they were found not to work regularly. Community perceptions and stereotyping of natives are largely negative, even more so than that of the Eskimo. "By implicating some of the traditional assumptions and conceptions in his approach to the Indians, the white man has put serious constraints and limitations upon the possible chances of

success of any enterprise involving the Indian labour force."[44] The white man has to rid himself of his prejudices and negative attitudes towards natives, if the natives are to move forward in society. Natives can adapt to the dominant white culture if they want to, but the white man may make it more difficult with his undue biases and prejudices towards the native person. Artificial barriers are constructed because of the paternalistic attitude towards people of native ancestry held by white society, making the natives' transition that much harder. In recent years attempts by the public and private sectors have tried to reduce these constraints by emphasizing the hiring of natives to a certain degree.

2.5.2.8 Summary

As the native population matures, growth in the labour force group (15-64), the child-bearing group (15-44), and the family formation group (20-29), major problems are developing, especially since the employment market cannot satisfy current requirements. If these problems continue (and there is no indication that they will not, although they are slowing down somewhat), the native population will become even more dependent on social assistance.

The increases in population (2-4 times higher than the provincial average), the lack of employment resources, the diminishing traditional resource base, along with the inade-

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[44] Paul Deprez and Glenn Sigurdson, p. 89.

quate level of goods and services, create major social problems for native people. Social problems will also occur when economic development is not introduced at all. An indication of this is the disproportionate number of natives comprising the population of the provincial penal institutions. The lack of employment opportunities and inadequate housing induce the migration to the urban areas by the young people. But migration is not a solution to the problems faced in native communities, as natives face alienation and other problems. While "the socio-economic system...encourages Native people to enter into the main-stream of society and then chastises them when, unable to overcome economic barriers, they retreat into the comparative security of paternalistic welfare."[45] According to the MMF the first priority is economic and social development in the native communities. This corresponds with the Government of Manitoba's stay option, proposed in the GUIDELINES FOR THE SEVENTIES document. The Science Council of Canada also indicated that the highest priority should be given to the indigenous people when dealing with Northern Canada. They agreed with the Federal Government's policy of 1972 that promoted the welfare of northern peoples and a retention of traditional lifestyles.

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[45] Manitoba Metis Federation, IN SEARCH OF A FUTURE, p. 3.

2.6 Native Needs

The needs of native people in Manitoba, generally speaking, are the alleviation of socio-economic conditions that confront them and the raising of their standard of living in line to that of the rest of the country. Hence, the need to provide basic services in northern native communities.

2.6.1 Economic Policies

A solution that may offer opportunities to the bleak economic outlook of these communities are development strategies. There is a need for economic development strategies, such as co-operatives and local development corporations, to increase the much needed amount of employment opportunities available in these communities.

A co-operative is an option that has proved effective in northern native communities. Co-ops "allow for a more effective utilization of the resource base of the community."[46] Co-ops provide a better organizational framework to utilize primary resources by reducing costs, thereby increasing the economic impact of the community. For example, fish co-ops have brought about savings in transport costs as lease agreements have been negotiated with carriers (this would not be available to single operators). Also operating costs are reduced as supplies are bought in bulk, therefore economies of scale can be taken advantage of. Co-ops with a framework of self-help operate to ensure a

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[46] Glenn Fields, p. 16.

fair return of the harvest for natives and to give them a more prominent role in processing and wholesaling. "The co-operative structure is promoted because it will...capitalize on presumed sharing and egalitarian patterns in Indian communities."[47] Co-ops can be used as instruments of economic as well as social development. They are an option that enhances the well-being of the area due to the fact that savings and profits stay in the area. Co-ops provide more benefits, and more equal distribution is enjoyed by the people of the community.

Co-operatives in the North have grown in recent years as the idea of sharing and group action brings back the old native way of doing things. Co-ops embody the traditional native way of life, which is characterized by self-determination and collective endeavor. Yet they also have offered northern native people the chance of dealing with modern business in a native way. Consumer and producer co-ops are increasing in northern communities where the lack of competition is paramount. Successful examples of co-ops in Manitoba include the Freshwater Fish Marketing Corporation (established in 1969), the Manitoba Indian Wild Rice Producers Co-operative (formed in 1964), and co-ops in pulpwood, fur and handicrafts.

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[47] Y. G. Lithman, THE CAPITALIZATION OF A TRADITIONAL PURSUIT: THE CASE OF WILD RICE IN MANITOBA, Series No. 5, Occasional Paper No. 6, (Winnipeg: Center For Settlement Studies, 1973), p. 25.

The development options, whatever form they take, should not alone be be expected to resolve the socio-economic problems of these communities. They should be provided along with such additional economic development packages, as more available credit (ie. credit unions), technical services, and managerial services are needed so that local residents can seek out and exploit increased development opportunities. The Science Council advocated "the goal of enabling northern communities to become economically more self-sufficient, thereby giving many northern residents the opportunity to become more self-supporting without leaving their community or abandoning their preferred lifestyle."[48] This includes more local controlled community development where materials, labour, products and capital should be local, not imported.

With additional development opportunities for the area, benefits accrue to the local people as they retain the full value of the output produced especially if the profits do not leave the area. Such opportunities would enhance the well-being of the area through a better provision of goods and services. But to obtain regional balance, economic development must be looked at from a broad perspective that integrates the activities of all regions. In this way economic self-sufficiency can be promoted and the people will

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[48] Science Council of Canada, NORTHWARD LOOKING: A STRATEGY AND A SCIENCE POLICY FOR NORTHERN DEVELOPMENT, Report No. 26, (Ottawa: Minister of Supply and Services, 1977), p. 73.

be encouraged to remain in their community and continue the lifestyle they choose.

The variety of development opportunities offer more potential for innovative activity in these communities. There is a need to utilize the resources of the area more efficiently. For instance, the forest, fish, fur and tourism industries could be made more efficient.

2.6.2 Social Policies

While economic policies will help raise the quality of living in remote communities, social policies for the North should be geared to create equitable living conditions with the rest of the nation. Economic development is only a means to improving the quality of life of northern native communities in Manitoba. Economic concerns have to be tied in with social concerns, such as better health, education, transportation, housing, communication and recreation in order to reduce the disparities encountered between the urban North and the poor Indian and Metis communities.

Policies for the development of the North should stress local employment and be integrated with federal-provincial employment, manpower and job training policies. Together with policies to improve social services and health (care for the elderly), employment policies will contribute to the stay option emphasized by the Manitoba Government. Economic and social policies should aim at eliminating the disparities prevalent in the North. The provision of the basic

services enjoyed by most Canadians, such as good water, sewage disposal, village roads and access to the rest of the province, preservation of order, adequate and affordable housing, better schools, better health care and more recreational facilities, etc. will enhance the quality of life enjoyed by native peoples.

2.6.3 Transportation

Given all of the conditions and realities of northern native communities, the lack of adequate and alternative modes of transportation (more so the cost of transportation) appears to be a major -- while not the only -- constraint to the improvement of the standard of living faced by the inhabitants of these remote areas. There are often skills and marketable resources in these remote communities, but the cost of transportation for import or export is so high that remote communities are often forced out of the market. Transportation services are so vital in remote areas, yet the lack of them pose a serious economic constraint to local enterprise.

When the Manitoba ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION was commissioned in 1967 (report published in 1969), Indian chiefs met with the commission to testify to the need for all-weather transportation links between the native communities and the rest of the province in order to share in its economic growth. Remote native communities are usually accessed by air, which is the most expensive mode

and places native people at a disadvantage, as it is beyond the means of most residents.

While it may not be economically feasible to provide all-weather transportation to some of these remote communities whose resource base is dwindling, more than just economic criteria should be looked at when providing a service. The MMF, as well as other organizations, contend that government policy on providing all-weather road access be looked at in economic as well as social terms. The economic benefits in providing this service may be minimal, but the social benefits afforded to the people of these communities are considerably widened. There are reduced financial implications to government as employment, however temporary, is created, thereby reducing welfare assistance. Transportation should be viewed as a basic social need and an attempt should be made to provide as much as possible within the constraints posed.

With upwards of 10%[49] of Manitoba's population being of native ancestry, action should be taken to provide or upgrade goods and services to this group of people, the majority of which live in remote and isolated areas. The lack of adequate transportation in remote native communities tends to exacerbate the socio-economic conditions faced by natives in general. If it is government's goal to acculturate natives into the dominant society, then certain goods

[49] Ian B. Cowie and Associates, "Aboriginal Policy Issues and Suggested Management Framework," For the Honorable Roland Penner, (Feb., 1986), p.7.

and services should be provided on an even level with the rest of the nation. Transportation is one of the critical services that should be provided.

2.7 Conclusion

The original inhabitants of Manitoba were a nomadic people, roaming the land in small hunting bands in order to survive. From the initial contact of the white man, native Indians were regarded as a minority group. When the West changed from a fur producing region to a grain and beef producing hinterland, the natives came to be regarded as obstacles to settlement and development. As a result, government policy placed them on reserves.

The natives in Northern Manitoba were not affected as much, due to the fact that they were in remote areas, and isolated from development. Therefore, the government's interest in northern settlements was limited. This neglect continued up until the mid 20th century, at which point government started to take more interest in the North.

The majority of northern native communities face a lack of real or potential resources. They are characterized by dwindling traditional resources that have to support an increasing number of inhabitants with a birth rate higher than the national average. A lack of the basic goods and services result in a dependence on government assistance. The socio-economic conditions that plague these communities

deepen the concept of the two Norths -- the rich industrial North and the poor native North.

In closing, since most natives are reluctant to leave their communities, priorities have to be given to increasing socio-economic development in order to increase the standard of living experienced by these people. Experiments in co-ops and other development opportunities have proven successful for some native communities. Goods and services should be provided to these communities on an even basis with the rest of the country. This will enable the socio-economic picture in these communities to improve. While transportation is not viewed as a panacea in solving the socio-economic problems of these communities, it is a major component in the development of the area. Social considerations, not just economic criteria, should be included in the process of providing the needed goods and services.

Chapter III

TRANSPORTATION IN NORTHERN MANITOBA

3.1 Introduction

This chapter focuses first on the historical development of transportation in Northern Manitoba from the initial fur trade links up to the end of the railroad era. It is then shown that transportation facilities were provided solely for the exploitation of the natural resources of the area, by-passing the native communities. This neglect, plus the pattern of settlement development in Northern Manitoba has led to a complex problem of providing an adequate transportation system in Northern Manitoba. The effect that the various modes of transportation have on Northern Manitoba is discussed. Particular attention is paid to the effect transportation linkages have had on remote native communities. The impacts of technological changes in transportation concerning Northern Manitoba is discussed. A section on communications is included as it is considered a form of transportation with the effect of shrinking distance and releaving isolation experienced by remote communities.

Transportation is viewed as a strategic function, very much interrelated with the economic, social and political outlook of the country. J. V. Dillabough stated in 1938,

"behind the economic life of Canada, lies the fundamental services which are being rendered by agencies of transportation."[50] This remains relevant today and is emblematic of the development of Northern Manitoba.

3.2 History Of Transportation In Northern Manitoba: Up To The End of The Railroad Era

The historical development of transportation in Western Canada was motivated by three things. The search for a North-West Passage to the Orient, the expansion of the fur trade, and a land settlement policy for the Prairies.

Fur traders established the first commercial highways of the prairies via two main waterways: the southern route, which was the Great Lakes system; and the northern or Hudson Bay route, used extensively to bring in settlers and supplies. The inland route to Western Canada, marked out by La Verendrye came a century later than the English's establishment of the Hudson Bay route.

York Factory, on the shores of Hudson Bay (see Figure 3), was the most important historical supply point for the Prairies. In the mid 18th century, canoes were replaced by the more efficient, larger capacity York boats as the main mode of transportation. The York boats would go up the Hayes River to Norway House and then on to Fort Garry. Norway House was founded as a staging post to supply goods to the

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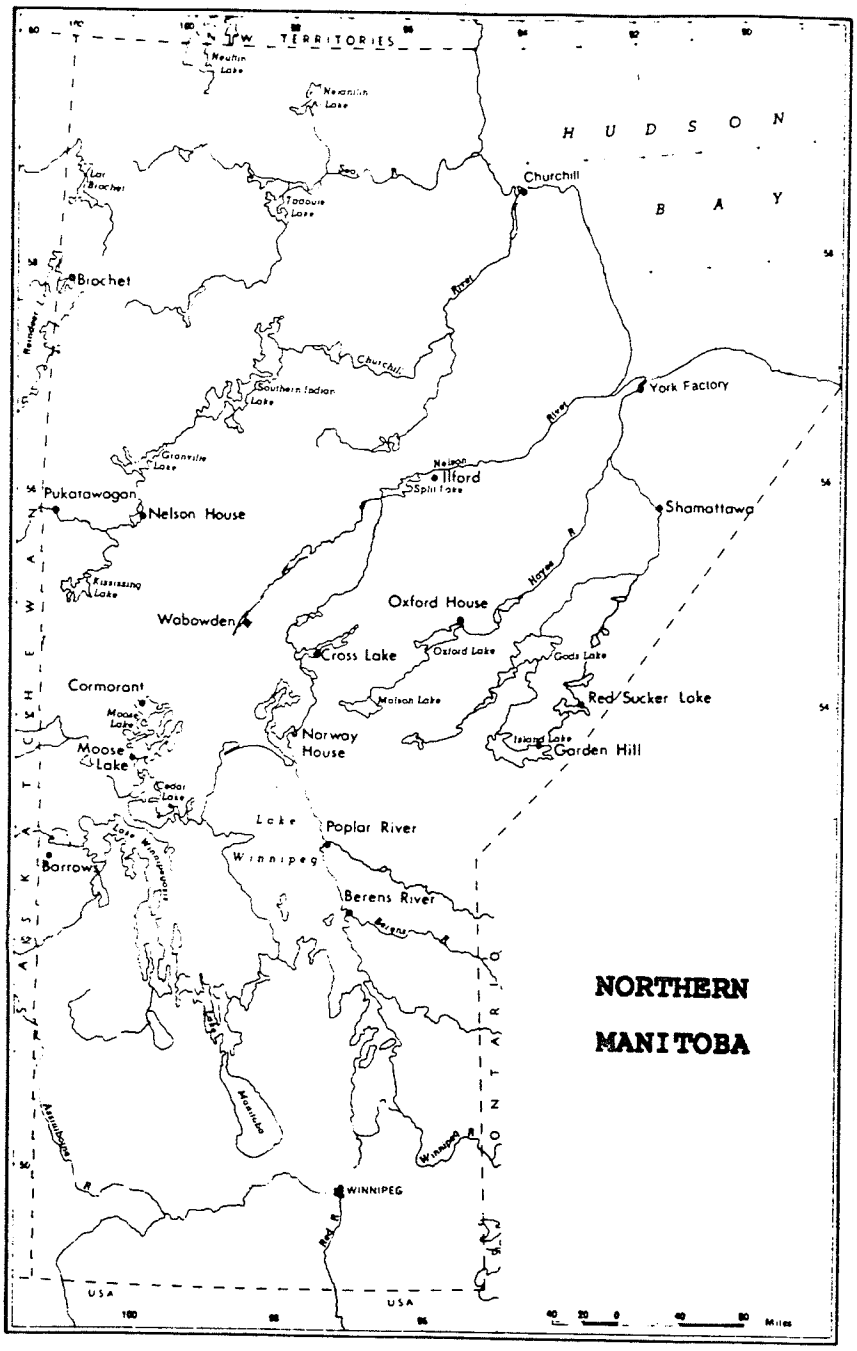
[50] J. V. Dillabough, TRANSPORTATION IN MANITOBA, (Winnipeg: Economic Survey Board, 1938), p. 35.

Red River settlement. With the development of the fur trade, it became the "hub of the North" in the mid 19th century. Simultaneously, competition came into play as the ox driven carts began to link the Red River settlement to the railroad which was completed in 1852 to St. Paul. This reduced freight rates between London and St. Paul, and the costs on this route became lower than the London - York Factory route of the Hudson Bay Company (HBC). By 1858 the HBC began to ship its goods through this southern railroad route, and by 1871 the transcontinental railway had reached the Red River settlement playing an important part in the decline of York Factory. Up to this point the waterways were of significant importance. The railway also led to the abandonment of the Red River cart trails. By 1874, York Factory saw the last of the York boats as the first steamship entered Lake Winnipeg. After 1874-1875, the northern commercial transportation route through York Factory slowed down to a minimum, as southern rail and steam replaced it. In 1878, the regional headquarters of the HBC were moved from York Factory to Fort Garry.

This re-orientation in transportation systems had major ramifications for the native settlements in Northern Manitoba. When the HBC shifted most of its trade along the Red River, the northern posts were severly affected. "The decline of these settlements illustrates the precarious nature of local economic activity geared toward, and con-

Figure 3: Map Of Manitoba



Source:
James R. Seldon, A NOTE ON THE COST OF LIVING IN THE NORTH, Series 2, Research Report No. 13, (Winnipeg: Center For Settlement Studies, 1972), p. ix.

trolled by external centers."[51] Examples of the impacts can be seen by the effects on Norway House, as it experienced a decline when the HBC found it cheaper to ship goods by steamboat between Winnipeg and the railway at Pembina on the U. S. border than through the northern Lake Winnipeg - Nelson River route. Furthering the decline was the construction of a rail line from Red River to St. Paul in 1878. Conversely, Indians at Grand Rapids experienced an increase (although most Indian settlements declined in importance) in activity as they gained employment at the steamboat wharfs, used to ship goods to Saskatchewan via the Lower Saskatchewan River, until the transcontinental railway was built through Manitoba in 1882. With this, the inland waterways of the fur trade were abandoned. Grand Rapids experienced a further decline in the early 20th century when a railway was constructed to The Pas.

Even though travel substantially decreased through the Hudson Bay route, the idea for a northern seaport intrigued settlers of the Prairies. It could provide them with an alternative to ship grain to market. "The transportation history of Manitoba has been dominated by the demand for an alternative to the politically compelled east-west flow either by way of a competitive railway to the United States border or by way of a railway to the Bay."[52] Settlers of

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[51] Russ Rothney, A BRIEF ECONOMIC HISTORY OF NORTHERN MANITOBA, p. 15.

[52] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, (MAURO REPORT), (Winnipeg: Queens Print-

the Prairies requested a railway to the closest sea route, which was Hudson Bay. The practicability of a Hudson Bay route would depend on the length of the shipping season and in 1884 a parliamentary committee was formed to investigate the possibility of the route, which was approved. In 1889 two railroad companies were granted a charter to build to the Bay. This charter was acquired by Mackenzie and Mann under the auspices of the Canadian Northern Railway Company. In 1896, a rail line started building to The Pas, 498 miles north-west of Winnipeg and was completed in 1908.

Persistent lobbying by Prairie farmers and Western members of parliament for a grain transport route to Hudson Bay led to the start of railroad construction north-east of The Pas. But first the difficulties of the boggy terrain (muskeg), permafrost and remoteness had to be overcome. Coarse gravel provided a bed for the railroad to support the train and acted as an insulating barrier prohibiting the permafrost from thawing in the summer. In was not until 1908 that locational surveys for a railway from The Pas were begun. Port Nelson was initially selected as the terminus and construction on the Hudson Bay Railway began in 1910. The Hudson Bay Railway line, sponsored directly by the Federal Government, experienced a shortage of railway materials and political unwillingness due to the war-time demand for steel, which halted construction in 1917, 90 miles short of the Bay. This caused delays in the completion of the line.

er, 1969), p. 176.

In 1920, a senate committee proposed that a study of the merits of both Churchill and Port Nelson be conducted. Work resumed in 1926 to rehabilitate and complete the line. A survey undertaken by Frederick Palmer in 1927 led to the rejection of Port Nelson as the terminus and Churchill was selected due to its natural harbour facilities, and at mile 356 the railroad was turned northwards. In April 1929, the last spike was driven and Churchill began exporting grain when port facilities were completed in 1931. The Hudson Bay Railway and port changed the pattern of transportation in the Bay as Churchill became a distribution point for the North. The rail line provides Churchill's only surface link with the rest of the province (CN took over the rail line in 1951).

In Lower Canada, railroads were constructed to connect the established settlements, but to the regions west and north, the railroads took the initiative. In the West the railroad was accompanied by a townsite boom where-ever there was a siding. The rail line to Hudson Bay though, like the majority of transport infrastructure in Northern Manitoba, was developed for reasons external to Northern Manitoba and not for "balanced regional development based on community needs."[53] To an extent it evolved to serve the exporters of raw materials through feeder lines in northern Manitoba. The principal benefactors of the railroad were not the farmers as originally intended.

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[53] Russ Rothney, p. 51.

3.3 Modern Transport Development In Northern Manitoba

Manitoba's boundaries were extended in 1912 to the present northern and north-eastern limits, which led to a "growth and establishment of a metallic mining industry in twenty years where none existed before."[54] The question of transportation to these ore bodies had to be answered. It was a serious problem as evidenced by the character of the terrain (the area is a part of the Precambrian Shield where a variety of lakes, bush, muskeg and rock exists). By using the same techniques to overcome the terrain in the building of the Hudson Bay Railway a line was completed from The Pas to Flin Flon in 1928.

Settlement in the North (except for native communities) followed mineral resource developments, unlike settlements in the South that followed the railroad. Urban settlements were not established in Northern Manitoba until mining developments of the 20th century took place. The increase in world prices of resources offered an incentive to Canada to open up her vast northern reaches. Most transport facilities in Northern Manitoba, or Northern Canada for that matter, can be directly related to the mining industry. Minerals, hydro electric and forest resources present the greatest opportunities for northern economic development. Transportation services ended the need for self-sufficiency and specialized economic activities emerged.

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[54] J. V. Dillabough, p. 31.

During World War I, metal mining grew as an important aspect of wage labour in Northern Manitoba. With the general colonization of Northern Manitoba, the output whatever it was (lumber, fish, fur, minerals, etc.), and the corresponding profits went south to the U. S. and elsewhere. Industrial capital was based on extracting profits out of the North and development had little to do with the needs of northern people, the natives in particular. "The people of Northern Manitoba had little to say in the overall direction of their economy. Rather, control mainly lay with the outside merchants, mining capitalists and government agencies."[55] This has led to long-term regional disparities at the expense of northern residents.

Government allegiance to the private sector has continued from the HBC to the railroad era to mineral extraction companies. The Province has also contributed substantially to the building and maintaining of railroads and roads to resource areas.

> Construction of the Canadian National's branch line from The Pas to Flin Flon (Hudson Bay Mining and Smelting) and Sherridon (Sherrit Gordon) was an example of direct government catering to private business. By the end of World War I the Manitoba Government had demonstrated its affinity for northern industrial capital through its road program. In 1917 private contractors operating with provincial money completed a 10 3/4 mile road linking the Hudson Bay rail line to Herb Lake. In the following year a 18 mile road was opened connecting Sturgeon Landing (accessible by steamboat) to Lake Athapapuskow. Both were constructed to aid development of mining camps.[56]

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[55] Russ Rothney, p. 51.

These transport facilities have played an extremely important part in the development of mining activities in Northern Manitoba in the early 20th century. To compound this situation even further, in 1919 mining companies were favored when the Indian Act was amended. It allowed the Crown to lease surface rights on reserves without band consent (the band though had to have previously been persuaded to surrender mining rights).

In the early years, "both the Provincial and Dominion Governments were concerned more with the regulation and promotion of mining than with gaining revenue from it."[57] Royalties were minimal and the only benefits resulting from the mining industry in Northern Manitoba were limited and temporary. These benefits were usually in the form of employment, in which native input was virtually non-existant. The government continued supporting the mining industry with tax concessions. Mining companies in underdeveloped regions like Northern Manitoba remain as enclaves with little contact with the regional economy as "the North's economy is still based on the export of most of its production and the import of most of what it consumes."[58] Improved transportation linkages permit access to the consumer market of the North by efficient producers of the South as most of the dollar value traditionally leaves the North.

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[56] IBID., pp. 61-62.

[57] IBID., p. 74.

[58] IBID., p. 82.

The North was viewed originally as a land with a wealth of resources. This attitude has affected the management of Northern Canada. In actual fact though, Northern Manitoba as a region, outside of a handful of industrial centers, is characterized by underdevelopment with low levels of income, health, education, social services and transportation access. The majority of the communities that contain these attributes are native. These glaring differences fuel the disparity of the two Norths: the industrial North and the native North.

3.4 Development As It Relates To Transportation In Northern Manitoba

The problem of economic development in Northern Manitoba and that of the provision of transport facilities is that the North is characterized by point development and not by area development prevalent in the southern part of the province. Area development is continuous development, typical of agriculture. In this type of development a transport network may be developed to spark economic development. On the other hand, point development is pocketed development and general development of the area is not likely to occur as the land value is nil except in the resource areas. Therefore, "the development of an adequate transportation system in the North is a complex problem, not only because of the difficult climate and terrain, but also because of

the pattern of settlement."[59] As transportation requirements are geared to mineral and forest resources that occur in pockets, there likely will not be any broad belt or area development like has occured in the Southern Prairies. Due to this type of development the transport network instinctly gears itself to air transport. Investments in infrastructure are less than surface transport and more flexible.

Adding to the problem of economic development in remote northern communities is the fact that southern settlements are broken into a hierarchy of settlements that form and integrated spatial market system. The individual settlements form component parts of a system where residents can share the advantages of a wider range of services (public and private) than can be afforded by one small settlement. The benefits filter down from the various levels of settlements in the system. This is not to say that the North is not broken down into a hierarchy of settlements, but the area does not form a developed spatial market system as the South does. A reason being that the road network in the North is not developed and complete as it is in the South. "As a result, even though a certain amount of regional economic expansion has taken place, the benefits do not appear to be spread throughout the territory because of significant distances between settlements."[60] Therefore, to their

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[59] Manitoba, Planning Secretariat, GUIDELINES FOR THE SEVENTIES, Vol. 3, p. 63.

[60] Ken Denike, "The Future Role of Human Settlements In The Development of The North: What Should It Be", in HUMAN

detriment, remote settlements in the North tend to be looked at mainly as separate geographical entities, rather than as component parts of a system. Geographical distances in many instances though, are too much to overcome.

Point development in Northern Manitoba influences its type of transportation network. Therefore, in Northern Canada transportation development is often the direct opposite as that in Southern Canada, which started with the provision of surface facilities with air facilities being added later.

3.5 Various Modes Of Transportation In Northern Manitoba

"Manitoba has had by far the most extensive experience in northern development and transportation. The construction of the Hudson Bay Railway and early development of the Flin Flon mine were forerunners of similar developments in other areas of Northern Canada."[61] Even though these developments were forerunners to other developments, there are still glaring inadequacies associated with regional development in Northern Manitoba, in which the native communities, to a large extent, have been by-passed. As has been shown above, transportation facilities in Northern Manitoba are largely associated with the mineral resource industry and economic development of the North is based on the effective utiliza-

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SETTLEMENTS AND RENEWABLE RESOURCES NORTH OF SIXTY, Seminar Proceeding, Occasional Paper No. 7, (University of British Columbia: The Center for Human Settlements, 1979), p. 93.

[61] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 39.

tion of these natural resources. The remote native communities as a result have to depēnd on air and the winter road systems for passenger and cargo service.[62]

In the industrial North, a transportation network has been put in place for the trade of staple commodities produced. "In a fundamental sense, the costs of such transportation infrastructure are borne by the economic advantages of that trade."[63] The underlying forces of Manitoba's transportation network were economic in nature.

The Mauro Report foresaw the Government of Manitoba upgrading the transportation system in stages. They envisioned a hierarchy for Northern Manitoba starting with a basic air network, which would be upgraded. This would proceed to surface transportation, starting with tractor-train routes, which in turn would be upgraded to wheeled vehicle winter roads. The final stage would be the construction of

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[62] Over the years various reports and studies that dealt with transportation in Northern Manitoba have been commissioned by different levels of government. Studies were also conducted on a nation wide scale concerning transportation to northern and remote areas. These studies focus on transportation problems evident in the North and aim at providing solutions to them. The reports include: 1) Manitoba Highways: Planning For Tomorrow; 2) Manitoba Royal Commission Inquiry Into Northern Transportation, Mauro Report (1969); 3) Manitoba Northlands Transportation Study (1975); 4) Ontario's Task Force Report On Transportation and Living Costs In Remote Northern Ontario Communities (1982); and 5) Air Transport Committee's Adequacy of Air Services in Northern and Remote Areas (1985). References on all these reports will be make throughout this section along with other reports on individual modes.

[63] Hickling-Johnson Ltd., MANITOBA NORTHLANDS TRANSPORTATION STUDY, EXECUTIVE SUMMARY, (Toronto: 1975), p. 5.

an all-weather road (gravel, then paved). Railroads would only be provided if they offered a modal advantage. The priorities for transportation, taking into account the existing services and comparative costs of alternative modes of transport, should be deployed rationally when facilities are provided.[64]

If northern native communities in Manitoba are to be party to the social and economic opportunities enjoyed by other Canadians, then they have to have reasonable access to the larger regional centers of the North. In order to see what effects transportation has on the remote[65] native communities, a mode by mode approach is taken of the transport network in Northern Manitoba.

3.5.1 Rail Transport

The Hudson Bay Railway was seen as an opportunity for improving transportation facilities in under-developed Northern Manitoba. But as shown previously, the reasons for development were external to Northern Manitoba (ie. the export of prairie grain). The railroad took on an ancillary role focused on expanding the mineral resources of the

[64] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 171.

[65] As A. V. Mauro stated, "remoteness is not solely a function of distance, but that it must reflect other factors, such as climate, social facilities and lack of alternative modes of transportation." A. V Mauro, "Case Study of Transportation and Regional Development in Northern Canada", in E. W. Tyrchniewicz and Om P. Tangri, eds., TRANSPORTATION AND REGIONAL DEVELOPMENT, (Winnipeg: Center For Transportation Studies, University of Manitoba, 1970), p. 127.

North. Some branch lines that have been built to resource areas are:

- an 87 mile line from The Pas to Flin Flon, completed in 1928
- by 1930 the line was extended 42 miles to Sherridon from Cranberry Portage
- by 1953 it was completed to Lynn Lake, 144 miles away
- a 31 mile spur line was completed to Thompson in 1957 from Sipiwesk
- 50 miles north of Thompson a 14 mile spur line was built to the Kelsey generating station
- in 1960 a 52 mile line was constructed from Optic Lake to Chisel Lake
- in 1964 an 8 mile line from Chisel Lake to Stall Lake was built
- in 1968 a 12 mile line was built from Stall Lake to Osborne Lake

The railroad was the historic mode for opening new land, but now it has a lesser role in the development of the North. Any further rail construction is unlikely to proceed without heavy subsidies or unless a major resource extraction warrants it. Even then, it would likely follow all-weather road construction and only if it offered a modal advantage for moving bulk goods to market. The railroad has lost passengers to the roads and freight to the trucking industry. However, the railroads will continue to play an important role in the movement of bulk commodities over long distances and in the inter-modal system of shipping freight to remote northern communities (ie. Ilford, Pukatawagan, Thicket Portage, Pikwitonei and Wabowden).

However, development of rail and all-weather roads servicing native communities, are a result of the industrial North and not because of the native communities. Hence, the development of the railroad system in Northern Manitoba has had little effect on native communities (excepting the ones located on the rail line) and in some instances act only as transshipment points for furtherance by winter roads to remote communities (ie. Ilford). This has lessened considerably as the all-weather road system has taken this particular role over. As can be seen though, the main importance of the railroad is reserved for the communities of the industrial North.

3.5.2 Air Transport

Transportation in Southern Canada historically followed the railroad with the construction of highways and air facilities developing later. However, in the development of Canada's North, air transport led the way in conquering the northern frontiers. "The first civil use to which aeroplanes were put in Canada was for transport in the northern areas."[66] Air transport was becoming increasingly important, and valuable work was accomplished by aeroplanes in exploration, photography, transporting men and materials, mapping (extremely important as it preceded development work), mail service and forest fire control. Aeroplanes used in fighting fires were extremely successful as they

[66] G. P. de T. Glazebrook, A HISTORY OF TRANSPORTATION IN CANADA, (Toronto: The Ryerson Press, 1938), p. 455.

were the only effective method for the vast areas of the North. This was Manitoba Government Air Division's (MGAD was established in 1919) prime function.

Canadian aviation had its beginnings in the 1920's and was an outcome of the First World War. Mining development in the near North was the spur, as geodetic surveys allowed mining exploration companies to locate ore bodies in a faster and more accurate manner. "The aeroplane, with its capacity to carry freight, became the instrument providing rapid development of mineral discovery in Northern Manitoba and in the northern areas of other parts of Canada."[67] Pioneers of the North have been the bush pilots who participated in exploration of mineral deposits. Roads and railroads in the North followed if development activity warranted it (ie. like Flin Flon, Lynn Lake and Thompson). Mineral exploration continued well after World War II and with the establishment of defence facilities in the North, the demand for air traffic continued.

By the late 1920's aircraft in the North "had established itself as an efficient and rapid means of communications and was flying regularly throughout the region."[68] Central Northern Airways Ltd., the forerunner of Transair, was established in 1947 providing service to the remote areas of Northern Manitoba (unit toll as well as charter services

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[67] J. V. Dillabough, p. 110.

[68] Keith R. Greenway, "Air Transport", in C. S. Beals ed., SCIENCE, HISTORY AND HUDSON BAY, Vol. 2, Ch. 12, (Ottawa: Department of Energy, Mines and Resources, 1968), p. 872.

were provided by local carriers). Therefore, frontier aviation became synonymous with the development of the North.

A number of northern communities have been established with air transport as the only means of transportation. Local carriers provide a necessary social function where other means of transport are largely unavailable. Residents in isolated areas were not initially concerned about air rates, but rather with the provision of the basic service. But this has changed as residents of these remote communities see air transport as a necessity, not a privilege. "Above all, however, there is a single unifying theme which is shared and voiced by consumers and carriers alike in connection with air services everywhere throughout northern and remote areas -- the high cost of travel."[69] This, plus inadequate facilities is the over-riding concern for people in remote areas now.

"In the isolated communities the volume of traffic requires the use of small planes and costs of operations and fares are inevitably high."[70] Operating costs for small aircraft results in high transport costs for passenger and cargo service. The development of airstrips has brought more dependable service, but air travel is relatively expensive. The Province of Manitoba has a policy to provide air-

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[69] Canada, Canadian Transport Commission, THE ADEQUACY OF AIR SERVICES IN NORTHERN AND REMOTE AREAS, FINAL REPORT, (Ottawa: Air Transport Committee, C.T.C., 1985), p. 22.

[70] Manitoba, Northern Working Group, NORTHERN MANITOBA, Internal Working papers, (June, 1971), p. 238.

strips in Northern Manitoba (refer to section 4.5.2), but the provision of the facilities is often not enough, as they cannot accommodate larger aircraft. Inadequate air transport results in economic and social costs for these native communities. Improvements to the facilities in Northern Manitoba need to be undertaken. There is a need to replace outdated, high operating cost equipment.

There are land, water and ice aerodromes (landing facilities) in the province. The land aerodromes are few in number compared to the water/ice aerodromes. The season for water aerodromes (mid July-mid October) is relatively short, while the season for ice aerodromes is considerably longer (December-mid May). Remote communities without airstrip facilities suffer prolonged periods of isolation (6-8 weeks) as they are virtually cut off during freeze-up and break-up periods.

Air movement north is generally for consumer goods and mail, while south-bound movement is limited to fish and furs. Passenger transport to and from remote communities is mostly by air, but the costs alluded to before are high relative to the disposable income of the residents, so travel is usually limited.

Where resource developments occur they are usually serviced by surface transportation, but where isolated communities are concerned they are usually dependent on the more costly air mode. Therefore, the cost of transportation is

prohibitive to many natives for whatever reason for travel. Travelling by air, which is relatively expensive, makes it a luxury item for all except businessmen and people in the upper income levels. It is a luxury that most natives cannot afford. This increases the isolation faced by remote communities. The Manitoba Northlands Transportation Study undertaken by Hickling-Johnson Ltd. in 1975, as a component of the Canada-Manitoba Northlands Agreement (1976-1982), indicated that passenger travel in Northern Manitoba native communities is limited due to the high costs (25 cents per passenger mile) compared to mainline routes (12-15 cents per passenger mile) and the lack of a viable alternative mode (highway transport).[71] The high cost of transportation results in increases in the cost of living and in basic necessities.

In comparison with other modes in northern areas, only air transport requires the passenger or shipper to pay a premium. In rail and highway transport a fairly uniform mileage rate is established for the North and South. In air transport there is a disparity between passenger-mile and ton-mile costs between the North and other areas of Canada. The Air Transport Committee (ATC), according to the Mauro Report, should have established equitable maximum rate levels for air transport as a lot of northern communities are "captive" to air. Once alternative modes become available

[71] Hickling-Johnson Ltd., MANITOBA NORTHLANDS TRANSPORTATION STUDY, AN ECONOMIC EVALUATION OF TRANSPORT SYSTEM ALTERNATIVES, (Toronto: 1975), pp. 27-28.

then the market conditions could take over. The Northern Working Group argued that an "extensive subsidy would be necessary to meet the often expressed desire to have rates per mile in Northern Manitoba comparable to those on the east-west routes across Canada."[72] They disclosed that this could be done by direct government payment or by the MGAD acting as a charter providing subsidized service like norOntair (see Appendix A). There are other ways of reducing air costs in northern areas such as eliminating fuel taxes, licensing fees and so on (refer to section 4.5.3).

A further problem exists within the air transport mode. An Ontario Task Force on Transportation and Living Costs in Remote Northern Ontario Communities (north of 51 latitude) conducted in 1982, stated that the costs of transporting goods is 30-45% lower for communities with airstrip facilities than for communities without an airstrip.[73] Airstrips provide remote communities with the means for year-round transportation. Air rates have decreased through the development of landing facilities for wheeled aircraft as larger more efficient aircraft can be used, which have lower operating costs than float/ski planes. Although the investment in ground facilities is expensive, the larger the aircraft, the more economical it is as economies of scale can be taken advantage of. However, the Ontario Task Force still found

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[72] Manitoba, Northern Working Group, p. 238.

[73] Ontario, TASK FORCE REPORT ON TRANSPORTATION AND LIVING COSTS IN REMOTE NORTHERN ONTARIO COMMUNITIES, (Ontario: Ontario Ministry of Northern Affairs, 1982), p. 43.

that food prices were 16-40% higher in the communities under study (only 17 of the 28 have airstrips and they rely on winter roads and ships to augment air transport) when compared to Pickle Lake (the transshipment point for many remote communities in Northern Ontario) which has road access.[74]

Navigational aids have also been installed in most communities to increase efficiency and safety of air transport in the North. But inadequate facilities have restricted the amount of cost reduction for cargo and passenger services. The need to upgrade facilities and relational equipment (ie. navigational aids, maintenance equipment and buildings) is essential as some airstrips serving remote communities are poor and unserviceable with little navigational aids.

Another indispensable function of air transport, is the provision of a reliable mail service to the remote northern communities. Canada Post distributes food-stuffs via the mail which is an effective means of reducing costs in northern native communities. This service was very important as postal rates for small packages were not distance related and were lower than general air freight rates until Canada Post became a crown corporation in 1981. Canada Post has begun to renegotiate its mail service contracts, in an attempt to utilize the cheaper surface mode (where available) and also with the intent of lowering air costs. Air mail service is essential to the socio-economic well-being

[74] IBID., p. 19.

of northern native communities. Therefore, this valuable service to northern areas should be taken into consideration by the various actors before changes are conducted.

In Northern Manitoba, Transport Canada has licensed airports at The Pas, Flin Flon, Lynn Lake, Thompson, Churchill, Gillam and Norway House. Most isolated native communities have unlicensed airstrips. The type of service which most remote communities receive is Class 2 (scheduled), Class 3 (unscheduled) or Class 4 (charter) licence.

3.5.3 Surface Transport

3.5.3.1 All-Weather Roads

As mentioned previously, all-weather roads and railroads were constructed with the sole basis of serving resource extraction areas in Northern Manitoba. Any initial link to native communities was a result of industrial development and not because of native communities. Consequently, highway and road construction is basically confined to the areas where resource development has reached a large enough stage to warrant major investment in all-weather road construction.

> Traditionally, the potential of roads in the northern areas was assessed in terms of the opening up of new areas for mineral exploration and tourist development. The importance of these developments is not denied, but the possible development of human resources is no less important.[75]

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[75] Manitoba Metis Federation, IN SEARCH OF A FUTURE, pp. 45-46.

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[75] Manitoba Metis Federation, IN SEARCH OF A FUTURE, pp. 45-46.

Therefore, all-weather road construction, according to the MMF, should not be undertaken solely on transport economic considerations as there is a need for human resource development. Improved access and communications should be provided to enhance the necessary social skills for development. Throughout the hearings conducted by the Mauro Commission, the need for roads to reduce isolation from one location to another was the over-riding concern.

> The view was expressed by organizations, enterprises and individuals, that the availability of highway transport would have an additional direct benefit by way of lower transport costs for commodities essential to life and work in the North. A highway policy for the North must have as its goal elimination of isolation, the reduction of transport costs and the expansion of economic activity.[76]

The MMF indicated that Northern roads are expected to produce long-term benefits so they should not solely be financed on current revenues. Northern roads are needed to permit native communities to share in the economic growth experienced by the rest of the province. Social considerations should be looked at, as transport is a routine service and a basic human right.

In Manitoba there are two main classifications for roadways: primary connectors designated as the Provincial Trunk Highway (PTH) system, and secondary connectors or the Provincial Road (PR) system. The Province has full responsibility for construction and maintenance of these roads. The

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[76] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 255.

Provincial Government pays for 50% construction and maintenance of all other roads that are the responsibility of municipalities (organized territory) which serve through traffic. In unorganized territory, the Province is responsible for all roads. There are different classifications for roads, the principal criterion being traffic volume. Roads are usually built above minimum standards as pressure to upgrade develops. It is also impossible to abandon a road once it is public and it must be maintained to promote efficiency.

The system of roads in Manitoba developed in response to the increased use of automobiles and the concomitant need for road transport facilities. Through the Good Roads Act of 1918, the Province gave assistance for the construction of highways. By 1925, the Manitoba highway system included roads from Selkirk to the U. S. border, from Winnipeg to the Saskatchewan boundary, and by 1930 to the Ontario border. During the next 20 years, the Province extended the highway system to settled agricultural communities of Manitoba. By 1929, Swan River was serviced by the PTH system. During the Depression years relief workers built highways into mining and forestry communities, such as PTH #10 from Swan River to The Pas which was completed in 1933. Wartime demands called for the need for new roads into unopened mineral and timber areas. After the war, PTH #10 was extended to Cranberry Portage and a main road was built to Flin Flon by 1950. Due

to the high construction costs, no more highways were constructed in the North until the federal-provincial "Roads to Resources" program was instituted in 1958. This program provided 50% federal funding up to $75 million total, for all provinces. It was solely designed to provide access to mineral resource areas. Under this program in Manitoba:

- PTH #6 was built from Gypsumville to Grand Rapids (112 miles)
- PR 391 was built from Simonhouse Junction to Thompson (200 miles) (renumbered PTH #39 Simonhouse Junction - Ponton, and PTH #6 Ponton-Thompson in 1987)
- PR 393 was built to Osborne Lake (12 miles)
- and PR 304 was built from Manigotogan to Bissett (100 miles)

This program will be referred to in section 4.6.1.

In 1960 the Manitoba Department of Public Works, Highways Branch conducted a study entitled, "Manitoba Highways: Planning For Tomorrow." The study indicated that the Highways Department's proposed PTH system was geared to provide equitable service for the needs of all areas in the province. However, the importance of highway transport to far Northern mining communities of which distance was a major factor, took on a reduced priority, thereby increasing the comparative advantage of the railroad. The government, realizing the absence of large volumes of traffic in Northern areas tried to establish an effective highway system that would maximize benefits at the lowest cost.

The Mauro Report stated that limited financial resources, high construction costs and sparse population was the reason northern highways were neglected. In offering solutions to this problem, the report recommended that PTH #6 be extended from Grand Rapids to PR 391 at Ponton. Completed in 1972, this shortened the distance from Thompson to Winnipeg by 200 miles. Transportation costs (passenger and cargo) were reduced substantially, thus more than justifying the construction. Also PR 391 from Thompson via Nelson House to Lynn Lake was completed in 1974, being deemed economically justified due to resource requirements. The report recommended the construction of an all-weather road from Thompson to Gillam in the short-term (by 1973), and eventually extended to Churchill by 1978. The Thompson-Churchill road was also examined in 1958 and 1962, in addition to the Mauro Report. All three said that is was not economically justified (traffic volume very low) on potential savings in transport costs or social benefits and a misallocation of resources would result if a road was built. Hence, the Gillam to Churchill road had not been constructed due to the uneconomic nature of the project. Contrary to what the Mauro Report stated, Hickling-Johnson's Manitoba Northlands Transportation Study indicated that the Thompson to Gillam road should not be built due to its uneconomic nature. However, a road from Thompson via Split Lake (1976) to Gillam (1981) was built despite these differing recommendations.

The major reason for construction of the Thompson-Gillam road was for highway access to the hydro development on the upper Nelson River.

The Hickling-Johnson study, conducted entirely on economic analysis, recommended a very limited expansion of the highway network, choosing to concentrate on the rationalization of the air system and improved barge/winter road systems with a subsidy program to alleviate transport costs between the North and South. The Hickling-Johnson study stressed that choice between modes may be purely economic and recommended that cost effectiveness measures be the determinant of transport investment for the industrial and the native Norths. On this basis, major cost discrepancies between the North and the South, and as well as the native and the industrial Norths existed. Addressing this disparity of costs, the Hickling-Johnson study proposed a system of subsidies for Northern transportation which would bring transport costs in line with the South. The greatest inequities occur in the remote native communities in North-Eastern Manitoba (the Island Lake area). "Average cargo cost to these communities [was] in the order of $170 per ton. Thompson, a comparable distance from Winnipeg, [paid], on the average, $17 per ton for the delivery of goods."[77] The Hickling-Johnson study stated that all-weather roads to

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[77] PMLP Consultants Ltd., MANITOBA NORTHLANDS STUDY: EVALUATION OF TRANSPORT ALTERNATIVES, (Prepared For Hickling-Johnson Ltd., Government of Manitoba and the Federal Department of Regional Economic Expansion, 1975), p. 1.

remote communities were not even close to economic justification. The study only recommended a gravel road be built to Cross Lake initially, and not to Norway House until the late 1980's, The study also saw no economic justification for building all-weather roads to Brochet, South Indian Lake and Moose Lake, although the report saw some social implication that might justify a road to the latter two communities. Alternatives proposed by the study focused on reducing transport costs by improving infrastructure or operational characteristics which were related to a base case of maintaining the existing system (a do-nothing alternative).

Contrary to the Hickling-Johnson report, a number of roads were constructed to improve surface transportation in Northern Manitoba under the 1976-1982 Manitoba Northlands Agreement. They were:

- PR 280 to South Indian Lake from Leaf Rapids with a ferry/winter road link, completed in 1976
- PR 373 from Jenpeg to Norway House and Cross Lake with a ferry/ice bridge, completed in 1977
- PR 327 from Easterville to PTH #10, completed in 1976 (renumbered PTH #60 in 1987)
- a road from The Pas to Moose Lake, completed in 1976
- a road from Thompson to Gillam via Split Lake, completed in 1981

Other existing roads in Northern Manitoba are:

- PR 396 from Fox Mine to Lynn Lake (33 miles), completed in 1968
- PR 394 from Lynn Lake to Co-op Pt. (62 miles), completed in the 1960's

Refer to Figure 4 for all roads in Northern Manitoba.

Aside from purely economic criteria in justifying the construction of an all-weather road, other impacts are obvious. All-weather roads provide lower transportation costs and can relieve isolation and increase mobility to these remote inaccessible communities (accessibility of native communities is a function of type of transportation available and the distance to be travelled). All-weather roads are expensive to build, but drastically reduce the costs of transporting goods. For an all-weather road to become more economical than air transport, 9,000 tons per year are required to be hauled.[78] Lower densities can be cheaper if the public absorbs the construction and maintenance costs, less the licence and user fees. Highway freight on Northern Manitoba roads consist of mostly consumer goods. As the Hickling-Johnson study pointed out highway communities' (ie. Nelson House) per-capita consumption and personal travel greatly increases with an all-weather road link.

All-weather roads divert freight and passengers from barge, air, rail and the winter road systems. Lorne Tangjerd in his thesis, "Transport-Community Interface Planning With Particular Reference To Small Northern Manitoba Communities," published in 1982, found that air freight and passenger traffic dropped to centers that became connected via a road. Tangjerd found that the availability of a road

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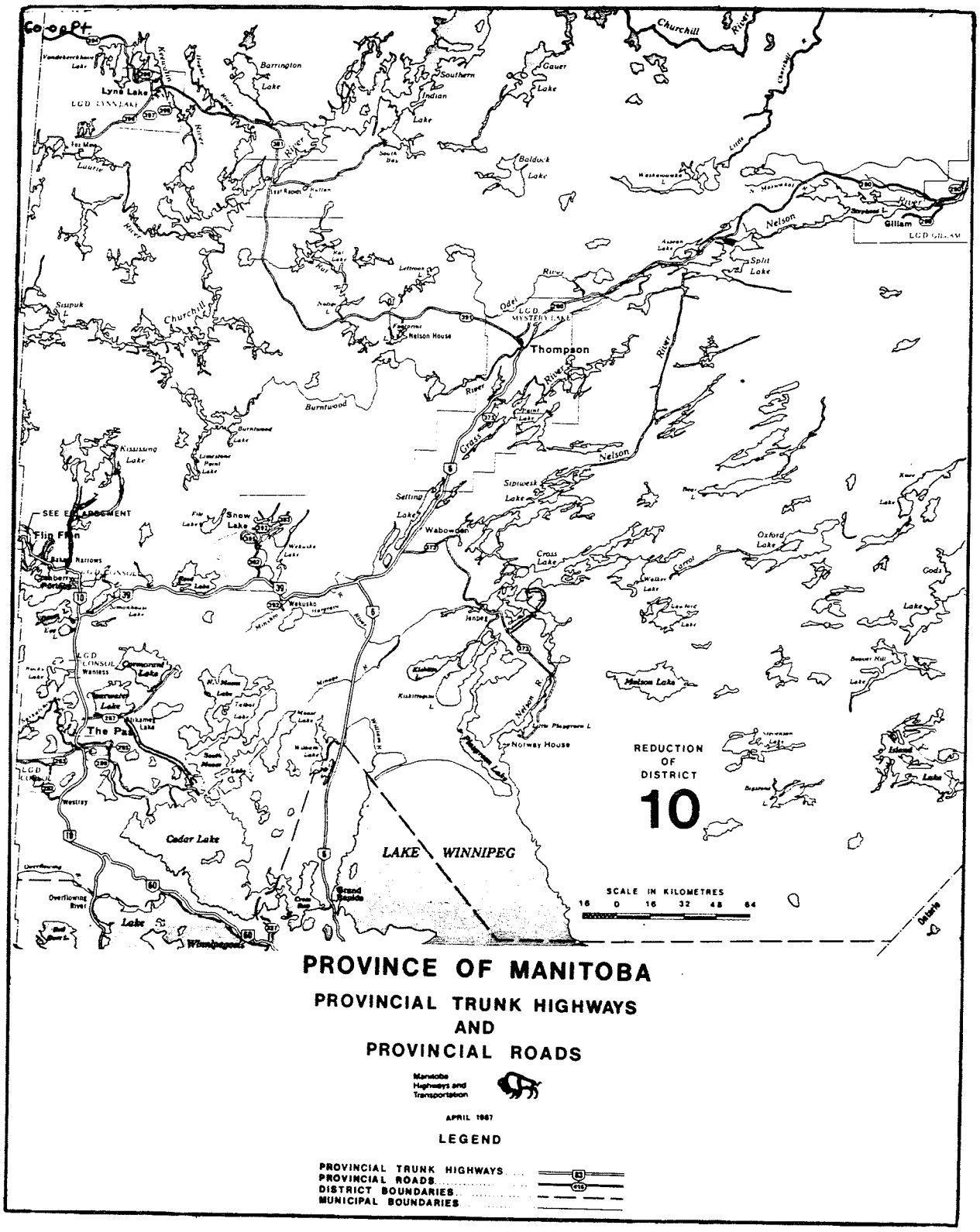
[78] A. V. Mauro, p. 105.

Figure 4: Northern Manitoba Roads



Source: Manitoba, Department of Highways and Transportation, Maps Branch, April 1987.

reduced freight costs by one half.[79] In the context of Norway House (the community on which Tangjerd's thesis focused) the "saving results primarily because of a shift from air freight to truck for resupply perishables and general freight."[80] These freight shipments are usually one way as export of fish and fur is relatively small compared to the imported freight. Seasonal constraints are eliminated as material can be shipped any time of the year. One of the most tangible benefits of all-weather roads is the relative reduction in the cost of living. Costs of food and other consumer goods are reduced significantly relative to Winnipeg prices. Inventory costs are reduced as supplies are more readily available by truck. Benefits result as the community can spend less of its income on food due to reduced costs or receive more due to increased consumption. Other benefits are increased mobility and reduced feeling of isolation with the more discretionary travel a road offers. A community benefits from a wider range of social and economic services associated with the larger regional centers (ie. education, retail, financial, legal, medical, health and other social services, etc.). The opportunity to exchange cultural and recreational facilities between communities is enhanced. Social contacts increase with freer

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[79] Lorne Tangjerd, "Transportation-Community Interface Planing With Particular Reference To Small Northern Manitoba Communities", (Winnipeg: Department of City Planning, MCP Thesis, University of Manitoba, 1982), p. 97.

[80] IBID,. p. 97.

movement and more convenience between communities. A general feeling is that all-weather road transport infrastructure provides the basis for increased socio-economic development.

However, one has to take into account the economic situation of the communities in question. With the severe nature of the economic problems in northern native communities, access roads are not expected to create major economic development. The road to Norway House was not built with the intention of creating jobs (excluding temporary work), unlike roads to northern industrial communities where roads are built to develop the natural and mineral resources. In general, there is a lack of resources in northern native communities which dampen economic development. As Tangjerd stated in the case of Norway House "the road is referred to by some as a social road as it was built primarily to achieve social rather than economic goals."[81] This is not to say that there is no economic development taking place, there is, but, it is of limited size. For example, temporary jobs were created in the road construction, new areas were opened up to forestry, fishing and trapping, new tourist possibilities were made available, and other areas were made accessible for employment. Economic development can be increased if transportation is the only bottleneck, but this is not the case in most native communities. Still, the residents of these communities have the right to share in

[81] IBID., p. 119.

access to the goods and services that other Manitobans enjoy.

The benefits of all-weather roads do not come without their costs though. The Ontario Task Force on Transportation and Living Costs in Remote Northern Ontario Communities stated that there are negative aspects associated with permanent transportation linkages. According to its findings, a number of Ontario native communities are on record opposing the construction of all-weather roads. They stated that surface transportation would have a detrimental effect on their lifestyle and culture. A reduction in the control and influence natives have over the character of their community might occur with a possible shift of decision making to external sources. A loss of traditional activities and culture can be experienced as people increase their contacts with the outside world. These external intrusions may produce stress, tension and a loss of identity. In addition, more personal disorganization may occur with better access. This cultural deterioration of native heritage has to be taken into account in Manitoba.

Other negative aspects can be the higher costs of operating vehicles. Moreover, one has to have the ability to use surface transportation and many people will not be able to afford to use it, as they cannot buy a car. For example, J. Lotz in writing about the Yukon stated that "new roads broke down the geographical isolation of northern settlements, but

they created social isolation and drew a line between those who could get out easily and those who have remained locked in, physically and mentally."[82] Thus, even with the roads, one may still remain isolated as financial restraints prohibit movement.

In the case of Norway House, the RCMP report that with the all-weather road, alcoholism has become a year-round problem as liquor is easier to obtain. Drug abuse has increased as well. The Hickling-Johnson study on the other hand stated that improved surface transportation may not be the key issue in increased alcohol abuse, although with surface transport the problem is harder to police. People always seem to get the alcohol they require, so improved transport can mean it will cost less, leaving more money for other goods theoretically. An increase of outsiders into the community may also result with improved transport.

In some communities transport developments have not generated much economic development as levels of unemployment and underemployment persist. Transport access does not stimulate economic development to the extent it should as there are few opportunities available. Transportation has to be viewed as a component integrated into the larger system of overall development planning. This will be looked at further in section 4.10.

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[82] Jim Lotz, NORTHERN REALITIES, p. 24.

"The idea of the road remains firmly rooted in the mythology of northern development."[83] One has to realize that roads lead in two directions. As Lotz stated, when roads were built to isolated Scandinavian areas, these areas soon became depopulated. Northern supporters see, with the advent of roads, thousands of settlers moving North. But the flip side of this coin has to be considered, that "improved transportation is often sought because people want to get out of an area not into it."[84] One might hope that, the Manitoba Government's implicit stay option policy and the stability of the population will help ward-off this occurrence (refer to section 4.7).

In the provision of all-weather roads, one has to weigh the advantages and disadvantages of the road. Community input and local needs should be reflected in deciding whether such a road is warranted. Also, ecological concerns have to be taken into account as all-weather roads, as well as railroads, have a considerable impact on the environment. The shortest route may be economically advantageous in establishing an all-weather road or railway, but it may not be the best environmentally. Therefore, transportation has to be included in a development plan for the region.

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[83] IBID,. p. 122.

[84] IBID,. p. 129.

3.5.3.2 Winter Roads

Although winter roads were initially provided in Northern Manitoba to service the mining industries (this type of transport was abandoned as each community received rail transport), the development of the winter road program in Manitoba was aimed at servicing the socio-economic and resupply needs of native communities in the most efficient manner. "The winter road program is one of the main areas where the Native North has effectively participated in the provision of the transportation infrastructure to service their own requirements."[85] Winter roads serve a unique function to isolated native communities in Northern Manitoba as they are a major mover of commodities.

When considering a highway program for Northern Manitoba, regard has to be given to the cost of implementing such a program. "While all-weather roads may be ultimately required, the winter road would make available immediately improved surface transport at lower cost to communities where movement is now restricted to air or tractor-train."[86] The provision of winter roads for wheeled vehicles is the best bet as they can be constructed and maintained for a fraction of the cost of all-weather roads. The major problem with winter roads is the short 6-8 week season.

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[85] Hickling-Johnson Ltd., MANITOBA NORTHLANDS TRANSPORTATION STUDY, GENERAL APPENDIX, (Toronto: 1975), p. II-20.

[86] A. V. Mauro, p. 107.

Even with its limitations, a winter road relieves isolation when its effects are greatest, in the winter. Winter roads are valued for their transportation, reduction of costs, employment opportunities and social contacts they provide with other communities.

Winter freighting began as early as 1917 from the Mandy Mine property near Flin Flon to The Pas. Firstly, a train of horse drawn sleighs pulled over frozen muskeg were used, which gave way to caterpillar tractor haulage. Ground freighting requirements (large quantities of heavy equipment and supplies) were maximized in the winter so less requirements had to be met in the summer by the more expensive air transport mode. Tractor-trains rose in prominence in the 1930's and were used to serve commercial fishing, mining and lumber needs. This method of transportation was sufficient for initial development in the North.

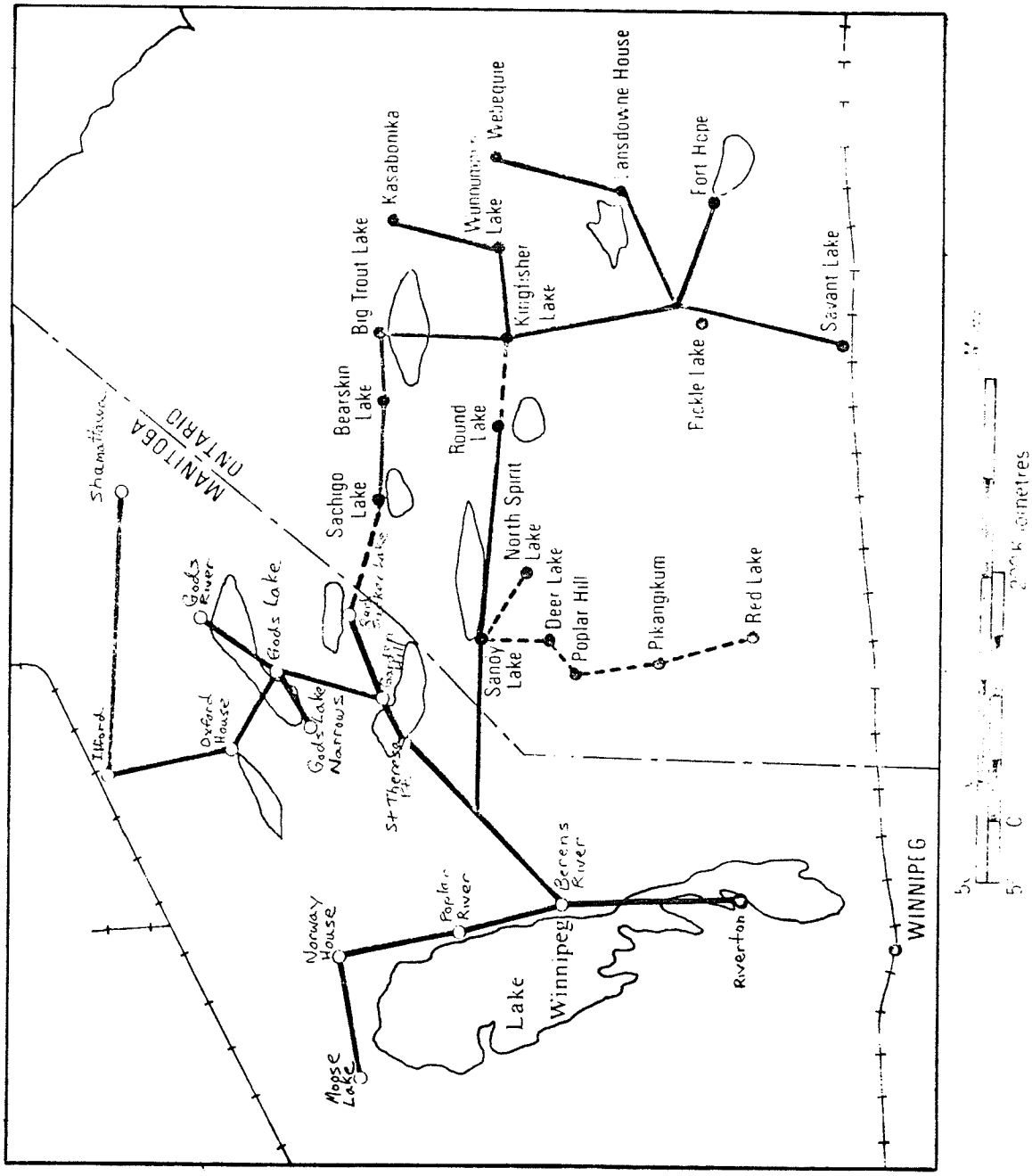
After World War I the resupply of settlements by winter freighting became common. Winnipeg was usually the supply base, and the railroad provided the southern link to transshipment points of Wabowden, Ilford, Riverton etc., for winter freighting companies.

The Sigfusson Transportation Company Limited of Winnipeg was the largest private company which began winter freighting in 1942. Sigfusson maintained an extensive network of winter tractor-train roads in Northern Manitoba and North-Western Ontario (see Figure 5). This system operated as a

private venture under government contract up to the early 1970's. Sigfusson did all the hauling on the east side of Lake Winnipeg and to most of the other remote communities, except Norway House. The winter tractor-train network in Manitoba in the 1950-1960's was more extensive when it was privately run than when the Province took over the system in the early 1970's.

There were extensive winter road networks in Northern Manitoba, particularly on the east side of Lake Winnipeg from Hole River (100 km north of Pine Falls) in the south to Island Lake in the north, and the Cross Lake - Gods Lake - Oxford House system. The Hole River - Island Lake route was initially used in the 1950's by private contractors to haul goods to Hudson Bay stores in remote communities. These roads were restricted to the one who built them. The winter roads were operated exclusively by private contractors under land use permits from the Department of Mines and Natural Resources, Lands Branch. The permit cost $1 per mile to open up the private road. Maintenance and operating costs were borne solely by the operator, who utilized mainly tracked vehicles. Prior to 1968, Manitoba did not participate financially in the construction and maintenance of winter roads. Up to 1971-1972, the private freighters were given first opportunity to renew the winter road permit which carried exclusive commercial operation rights and the right to charge competitors for road usage. Public pressure

Figure 5: Sigfusson Winter Road Network



Source:

Ontario, TASK FORCE REPORT ON TRANSPORTATION AND LIVING COSTS IN REMOTE NORTHERN ONTARIO COMMUNITIES, (Ontario: Ministry of Northern Affairs, 1982), p. 53.

mounted to open up the roads to the public, which resulted in the Manitoba Commissioner of Northern Affairs becoming involved in 1968 with a 50% subsidy for the construction and maintenance of existing winter roads in an attempt to reduce freight rates. In 1969 a policy of assistance was started. A sum of $66,000 was given to the freighters to assist in the clearing of trees, freezing the muskeg and building ice bridges on lakes and rivers for the 2,000 miles of winter roads that existed in Manitoba.[87] These savings to the operator were passed on to the residents with lower freight rates. This subsidy continued until the 1971-1972 season when the Province absorbed 100% of the costs.

In the late 1960's, the Provincial Government imposed a gas tax on private contractors, of which Sigfusson was the largest, -- making it uneconomical to operate the winter road system -- even though the private companies were not operating on provincially owned roads. The Province received the licence fees plus 5 cents per gallon fuel tax from the private freighters. It was noted by the Mauro Report that there was no other situation where a government received user fees without making any investment. No such tax existed in Ontario either. As a result of the fuel tax, Sigfusson increased rates as the tracked vehicles, which lay idle nine months of the year imposed a very high capital cost on the owner.

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[87] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 277.

The Mauro Commission criticized the fact that winter roads were privately operated and recommended that the Province take over their operation and construct them for wheeled vehicle use instead of tractor-trains, which would be in the best interest of the public. The change from tractor-train to trucks reduced the need for transshipment points as trucks could make a direct trip. It also resulted in lower rates for the capital costs could be amortized over a 12 month period as vehicles were being used elsewhere in the off-season. The Mauro Report also recommended that until full responsibility was assumed by the Province, the fuel tax should be eliminated or rebated.

By 1971, the Department of Northern Affairs assumed full responsibility of administering the winter road program, which they had until 1979 when the Manitoba Department of Highways took over. The exclusive commercial usage was also removed. The Province assumed responsibility in order to reduce freight rates by making the roads open to competition and by reducing winter road construction borne by the haulers who were expected to reduce freight rates accordingly. The winter roads objective was to take into account the public interest of reducing transport costs to remote areas (notably in North-East Manitoba). Land permits were discontinued and hauling on winter roads is now controlled by a winter road application by the Air, Radio and Technical Services Division of the Department of Northern Affairs. The

application (user fee) costs $1 per vehicle per mile for any carrier.

For the 1972-1973 season construction bids for the winter road program were excessive and the Province announced the discontinuance of the winter road program in favor of its airstrip program. It was at this point that native communities began to participate in the provision of their transportation requirements. Through the Manitoba Indian Brotherhood (MIB) a proposal for winter road construction was submitted to the government (2/3 lower than the lowest bidder received by the Province). In November of that year the contract was awarded to the Me-Ke-Si Company Ltd., formed in 1972. The company was owned by the nine bands served by the Hole River - Island Lake system (Garden Hill, Berens River, Hole River, Little Grand Rapids, Bloodvein, Poplar River, Wasagamach, St. Theresa and Red Sucker Lake). Me-Ke-Si acted as general contractor for constructing 280 miles of winter roads formerly done by Sigfusson. The rest of the winter road system was constructed by the Province and private contractors. Me-Ke-Si persuaded the Federal Department of Indian Affairs and Northern Development (DIAND) to pick up 50% of the Hole River - Island Lake system. No other winter roads in the province had been financed like this. Me-Ke-Si's objectives were: to reduce costs of goods through the reduction of transport charges; to provide local employment; to increase economic development in the winter road area;

and to provide for a better quality of life. Contracts for winter roads are presently negotiated with the individual bands involved.

It was realized that air freighting was considerably more costly than winter road freighting and as a result winter roads have lower per pound shipping costs which increases consumer savings. Savings have benefited communities and government agencies alike, as a large proportion of the freight moved to these communities is non-consumer goods. For instance, during the five year period 1972-1977 an estimated 55% of the Hole River - Island Lake freight was shipped by the Federal Department of Supply and Services and Manitoba Hydro.[88] There was a significant net benefit by using Me-Ke-Si when it was in operation. The company was re-organized in 1981 and renamed Nor-Win.

The Cross Lake - Oxford House - Gods Lake system formerly linked up to the Island Lake system, was not during the 1976-1977 season. It was indicated that there would be very "little to be gained by altering the existing winter road network in this area as there are no significant savings relative to overall costs."[89] It was not economic to continue the system to Gods Lake any more.

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[88] P.M. Associates Ltd., WINTER ROAD IMPACT TO THE COMMUNITIES SERVED BY THE ME-KE-SI ROAD NETWORK, (n.d.), pp. 14-15.

[89] IBID., p. 21.

A study done in 1973 by the Manitoba Department of Mines, Resources and Environmental Management, Resource Planning Branch entitled "Study of Freight Transportation to Remote Northern Manitoba Communities" looked for an optimal method to transport north-bound freight to remote communities. The study recommended a winter road system rather than an air system for most of the remote communities, as it was the most economical when everything was considered. As a result of the better economics offered by winter freighting, the airstrip program concentrated on emergency and passenger movement, express freight, mail and limited quantities of perishables. With winter freighting, since contractors were mainly local people, the communities benefited as expenditures on construction and maintenance exceeded construction of airstrips by a considerable amount.

When the Province took over the winter road system, indirectly the Federal Government's costs were reduced. With the majority of people served under federal jurisdiction, they benefited from the reduced rates resulting from increased provincial expenditures. Thus the Federal Government's expenditures were reduced as a result of the lower shipping costs. The study stated that for the Province the most economical system is air. Therefore, it was indicated that a federal-provincial cost-sharing program for the annual construction and maintenance of the winter road system be carried out. Moreover, unless a cost-sharing agreement was

followed, the selection of a winter truck road alternative over the air alternative would be questionable for the Province. As a result of this, the Federal Government now cost-shares winter road construction and maintenance costs (50/50) with the Province.[90]

In terms of making the system more efficient, the trucking company of Gardewine and Sons Ltd., of Winnipeg conducted a study in 1973 and found that a truck can operate efficiently at speeds greater than 20 mph. Winter roads have to be built to a standard that will allow these speeds in order to be economical. Gardewine also stated that "the longer a winter road is usable the better the result in terms of cost of hauling freight."[91] Their reasoning was that if a road is in for three months, it costs less to haul freight than if the road is in operation for only one month, because less equipment is required.

The Province of Manitoba which phased out winter road links to Ontario communities in the late 1970's, has taken a different approach than Ontario, providing a high standard winter road program capable of carrying highway vehicles

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[90] The Federal Government has cost-shared equally: the Hole River - Island Lake system since 1972-1973; the Cross Lake - Gods Lake - Oxford House system since 1983-1984, and added Gods River in 1986-1987; and the Ilford - York Landing winter road. The Province funds the entire costs for the South Indian Lake and York Landing - Split Lake winter roads.

[91] Gardewine and Sons Ltd., TRUCK TRANSPORTATION TO REMOTE COMMUNITIES IN NORTHERN MANITOBA VIA WINTER TRUCK ROADS, WINTER 1972-1973, (Winnipeg: unpublished report, 1973), p. 25.

safely at reasonable speeds. Manitoba winter roads serve larger population centers than the Ontario system. Operating conditions are the same (ie. terrain, climate, operating problems and local involvement) on the two systems. Winter roads in Manitoba are very reliable, whereas in Ontario they are not. Still as the Hickling-Johnson study indicated there can be high levels of anxiety associated with winter roads as a result of unpredictable weather and administrative inefficiencies.

Costs for winter road construction in 1982, according to the Manitoba Department of Highways were $2,500/km for constructing new roads and $1,250/km for preparing an existing right of way for winter use. Maintenance totaled $76/km/wk. Annual costs of winter roads are more than the maintenance costs of all-weather roads.[92] The main commodities hauled (trips are usually a one way operation with very little back-haul, usually fish and fur) are fuels, capital goods (building materials) and general consumer goods.

Winter roads operate from January to March and are usually open for an eight week duration. It links 15 remote communities through two major systems (see Figures 6 & 7). In 1987, Manitoba had a network of 1,243 km of winter roads, 351 km linking Cross Lake, Oxford House and Gods Lake Narrows. Shorter routes existed between Split Lake, York Landing and Ilford (64 km); and another to South Indian Lake (14

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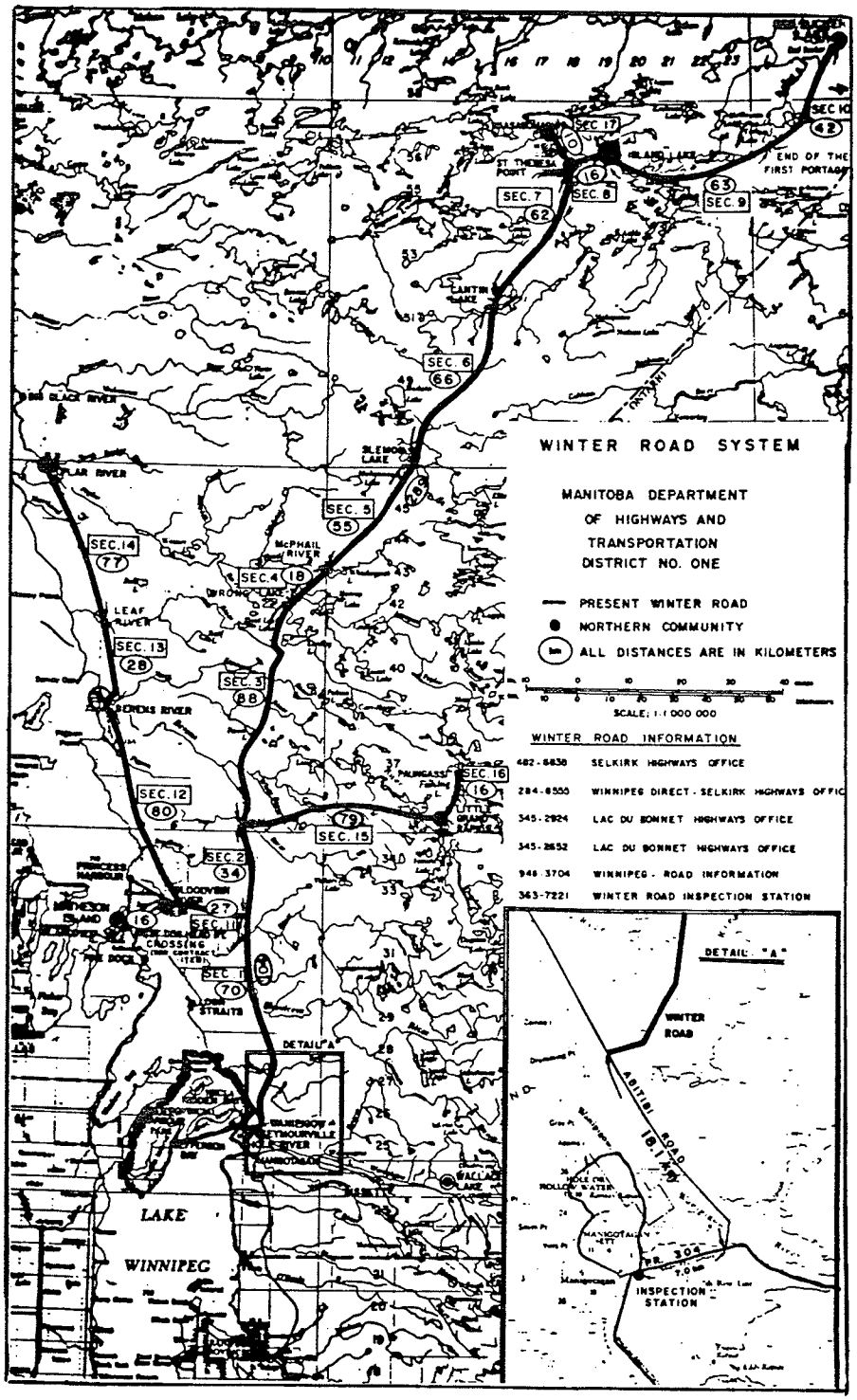
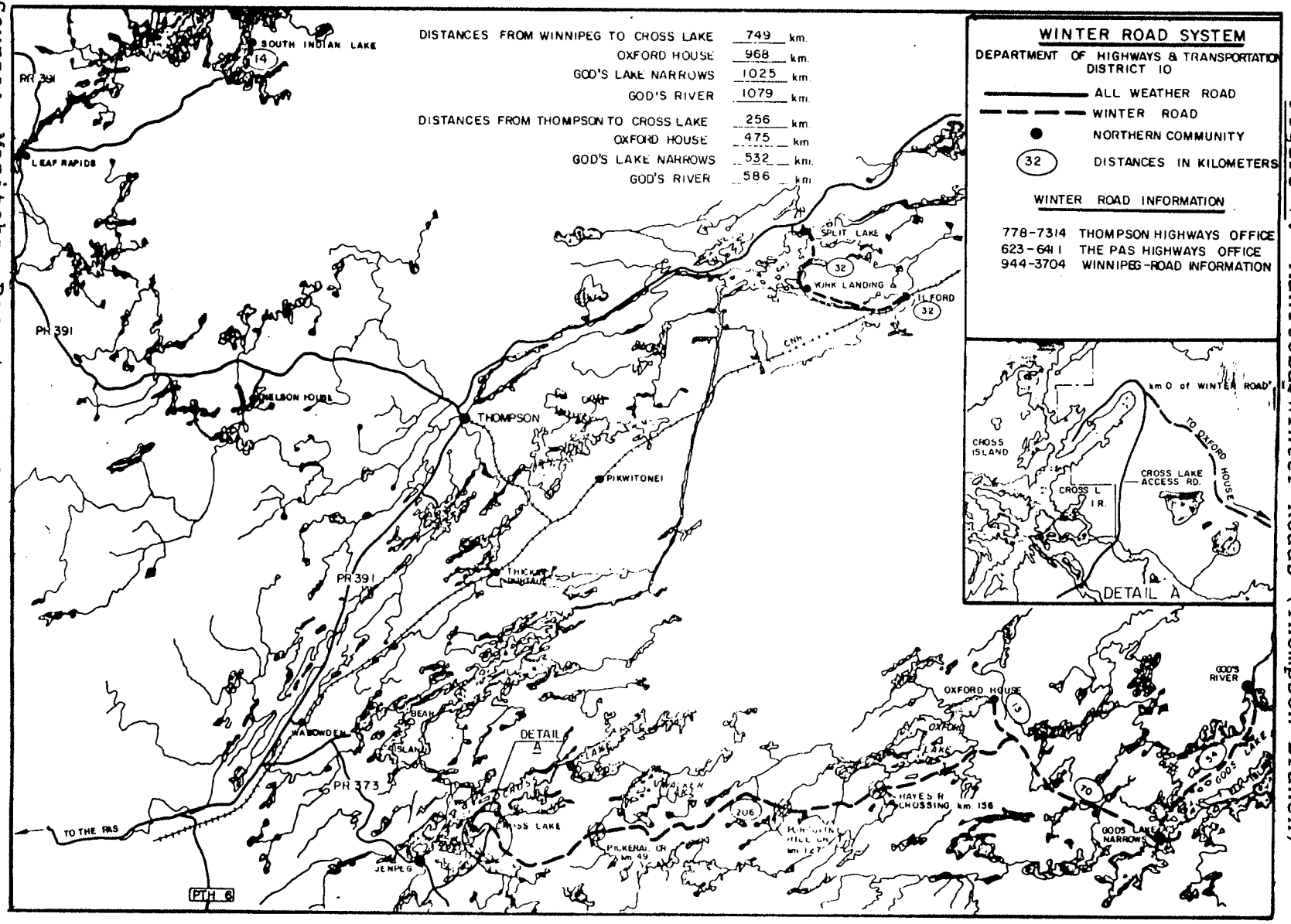
[92] Ontario, TASK FORCE REPORT ON TRANSPORTATION AND LIVING COSTS IN REMOTE NORTHERN ONTARIO COMMUNITIES, p. 56.

Figure 6: Manitoba Winter Roads (Selkirk Branch)



Source: Manitoba, Department of Highways and Transportation, 1986.

Figure 7: Manitoba Winter Roads (Thompson Branch)



Source: Manitoba, Department of Highways and Transportation, 1987.

Figure 8: Mileage and Costs of Winter Roads

Northern Winter Roads contracts are awarded

Contracts totalling $2.194 million have been awarded for the construction and maintenance of winter roads in northern Manitoba under a Canada-Manitoba cost-sharing agreement, Northern Affairs Minister Elijah Harper has announced on behalf of Highways and Transportation Minister John Plohman. An additional $80,328 worth of winter road construction contracts were awarded and funded solely by the Manitoba government.

"There are eight contracts being awarded in 1986-87 under the cost sharing agreement compared to seven in the previous year. The addition is a 54 kilometre road from God's Lake Narrows to God's River," said the minister.

Harper said there are many benefits to winter roads including job creation for northern residents, lower cost transportation of bulk and other goods to remote communities and reduced costs of normal vehicle travel between the communities during winter months.

The cost-shared contracts for winter roads covering a distance of 1,197 kilometres are:

Contractor	Location of Road	Length (km)	Contract Amount
Midnorth Dev. Corp.	Cross Lake to Km 64	64	$ 93,941.92
A. McLeod Const. Ltd.	Km 64 to Hayes River	92	$127,016.56
Oxford House Band	Hayes River to Jct. Oxford House Rd.	50	77,402.00
Gilbert North	Oxford House to Km 36	36	58,706.60
God's Lake Narrows Band	Km 36 to God's Lake Narrows	55	99,754.35
Gold Trail Hotel Ltd.	Ilford to York Landing	32	43,661.52
God's River Band	God's Lake Narrows to God's River	54	104,000.00
Nor-Win	Hole River - Red Sucker Lake	814	1,589,740.28
	TOTALS	1197	$2,194,223.23

The winter roads construction and maintenance project is cost-shared equally between the Government of Manitoba and federal Department of Indian Affairs and Northern Development.

In addition, contracts for constructing a further 46 kilometres of winter roads funded solely by the Government of Manitoba are as follows:

Contractor	Location of Road	Length (km)	Contract Amount
Gold Trail Hotel Ltd.	York Landing to Split Lake	32	$51,975.28
Garry McLean Const. Ltd.	South Bay to South Indian Lake	14	28,352.80
	TOTALS	46	$80.328.08

Source: THE THOMPSON CITIZEN, March 11, 1987, p. 9.

km) (see Figure 8). A 240 km private winter road was constructed from Gillam to Shamattawa along with an 80 km private winter road from Co-op Pt. to Brochet. A private winter road is built to Shamattawa when large quantities of material are needed (in 1986 and 1987 building material for a school was hauled in). The biggest network is a 814 km route connecting 9 communities from Hole River to Island Lake serving some 6,400 people. Construction and maintenance costs shared equally between the Federal and Provincial Governments was $2.2 million in 1987. Costs to Island Lake by winter road range from 7-10 cents a pound (16-22 cents a kilogram) compared to 44 cents a pound (97 cents a kilogram) by air.[93] Hudson's Bay stores, Indian Bands, Manitoba Hydro and the Federal Department of Supply and Services are the main shippers on the winter road networks in Manitoba.

3.5.4 Marine Transport

Historically, water transport in Manitoba utilized the Nelson - Hayes - Lake Winnipeg - Saskatchewan Rivers system during the fur trade. At present though, marine movement affecting remote native communities is reduced to the Lake Winnipeg - Red River system. Private operators haul southbound traffic consisting of fish, pulpwood and lumber from points on the northern edges of Lake Winnipeg mainly to Selkirk and Pine Falls. North-bound traffic is mainly consumer

[93] "Highways of Winter", WINNIPEG FREE PRESS, Saturday March 15, 1986, p. 53.

goods, bulk fuel and construction materials. The remote communities that are accessible to Lake Winnipeg benefit from the most efficient method of transporting heavy freight and fuel -- by water.

The Selkirk Navigation Company used to offer regular general merchandise and passenger service on the Lake Winnipeg - Red River system. Now passenger service is limited to the communities of Bloodvein and Princess Harbour from Islandview, at the end of PR 234. This service is provided by the M.V. Edgar Wood, a provincially operated ferry (39 passenger and 11 car capacity), which has been in operation since 1978. The ferry provides service five days a week for approximately five months. At present there are three companies that operate barges on Lake Winnipeg. Marine Transport Ltd., who used to be a general merchandise and bulk carrier, no longer hauls general freight. Their operation is limited to hauling pulp for channel area loggers. Waterways Enterprises Ltd., which started services in 1975, is the only general freight and bulk fuel carrier left. It operates the M.S. Poplar River. However, a decreased demand for fuel oil resulted from the major upgrading to land line power to Bloodvein and Berens River in 1984 and to Poplar River in 1986 by Manitoba Hydro. Waterways is presently considering terminating their barge operation because of this loss of business. The expected termination of barge service may require government action to ensure transporta-

tion needs are met. The third operator is Big Black River Community Co-op, which operates the M.S. Mukatawa. Their operation includes freighting fish south and general freight north. Major freight receiving centers are Berens River, Poplar River, Bloodvein and Norway House.

The short navigation season of 5 months (June to October) inflates costs due to a substantial amount of dead time (7 months) imposed on costly capital equipment. Shallow water also increases costs as navigation and operation are more difficult. The Lake Winnipeg barge system has been labeled inefficient and ineffective as there are problems of transferring loads from truck to barge, length of time consumed, inadequate equipment and unloading at remote communities (internal cartage is also a problem in these communities), and seasonality and unreliability in the open season. Major navigational aids and facilities need to be installed to make marine transportation more effective, efficient and safer. Navigational aids would utilize 24 hour operations. Also there is a need for better docking facilities, terminal facilities and communication systems. The need for better facilities (terminals and warehouses), is primarily at the north and north-east ends of Lake Winnipeg. In general there is a need for upgrading most facilities on the Lake Winnipeg system. It is not feasible to integrate water-land movement as cost of transshipment and providing facilities would outweigh the advantages of the lower water transport.

New ice breaking techniques could be utilized to extend the shipping season so that marine transport could reduce the gap between summer and winter transport (winter roads) to these remote communities. Another problem that will have a negative impact on service to remote communities, if it goes through, is that in January 1987, the Federal Government announced that it would increase dry dock and storage fees substantially. This will have an adverse effect on the level of service to remote Northern Manitoba communities as some operators will be forced out of business.

Water transport's importance has dwindled in recent years with the advent of all-weather roads in the North. A case in point is Norway House and Cross Lake. Before Norway House and Cross Lake had access to a permanent surface transportation facility, they received the bulk of their goods by barge. Norway House also acted as a transshipment point for other northern communities. These goods are now freighted in by road. Norway House though, still receives a portion of its fuel by water transport.

Internal community water transport is a very important mode of transport for a majority of remote settlements as many native communities are themselves separated by water. Therefore, navigation on these lakes and rivers remain an extremely important mode for local travel.

The Port of Churchill, as a part of the Manitoba transport system, does not affect remote communities as there are

no communities in Manitoba on the Hudson Bay coast. Churchill does have an effect on remote communities in the North West Territories, Ontario and Quebec as goods are received and passed on for furtherance by local carriers to these isolated communities.

3.5.5 Technological Developments Affecting Northern Manitoba Transportation

Technological developments offer a way of improving the quality of living in remote northern communities. "The limitations of existing transport modes have given the impetus to developments in new technology."[94] Transport technology should be applied to the environs of the North. "The existing modes of transportation in the North -- water, surface and air are being improved continually. Many of these developments are directed towards improving the efficiency of the existing transportation systems."[95] Recent technology has developed new forms of transport that will play an important role in the development of the North. Technological advances in surface transportation include new types of rail cars, rail-bus, containerization, improved vehicle design, commodity pipelines (though none exist in Northern Manitoba) and air cushion vehicles (ie. the hovercraft which

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[94] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 47.

[95] W. D. Graham, THE IMPACTS OF DEVELOPMENT IN TRANSPORTATION TECHNOLOGY ON NORTHERN MANITOBA, prepared for The Royal Commission on Northern Transportation, (Winnipeg: Queens Printer, 1969), p. 1.

may have limited use over the rocky and forested terrain of Northern Manitoba). Various studies indicate that revolutionary technology cannot be expected to solve transportation problems in Northern Manitoba and that the Province not engage in experimental modes of transportation (ie. hovercraft).

> Technological developments in transportation in Northern Manitoba as in Northern Canada must be designed to meet the need for reliable regular transportation to and from isolated communities as well as the need for volume transportation to areas where major resource developments occur.[96]

Manitoba's interest in providing the improved access remote communities require, gives rise to the opportunity to develop a rail-bus. This technological development is being tested presently in Northern Manitoba. The concept of the rail-bus would lower transportation costs as capital and operating costs would be reduced substantially (benefits communities like Thicket Portage and Pikwitonei). Road transport technology consists of new vehicle design, larger loads (being provided with pup-trailers) and engine efficiency. In addition, better winter road design allows for the more efficient wheeled vehicles to operate. Rail technology offers new designs of lighter rail cars, computerization, the rail-bus and the concept of the unit train. In water transport for the North, as alluded to previously, ice breakers can lengthen the shipping season and reduce the cost of transporting freight to remote communities on Lake

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[96] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 389.

Winnipeg. Also new vessel design provides more efficiency, reducing overhead costs.

Most technological advances have occured in the air transport mode. These will be discussed in detail since it has particular application to remote northern communities, which are effected the most by this mode. A recent development for Northern Manitoba air transportation is the short take-off and landing aircraft (STOL) to service some of the isolated communities. The initial stages of this technological development were in the mid-1970's. STOL aircraft operating in Northern Manitoba are the de Havilland Twin Otter (DH-6 Series 300) and the Short Skyvan (Series 3). A maximum of 2,000 feet is all the runway that is required at maximum registered gross take-off weight. Since northern transportation systems are more costly to develop, the STOL aircraft has an added advantage, as the equipment requires less ground support than conventional aircraft.

The physical features of Northern Manitoba create a unique environment for the development of transportation in the area. Landing facilities are difficult to construct due to the rock outcrops and muskeg.

> Variable weather conditions, inadequate landing facilities, inadequate guidance systems in remote population centers, as well as the other variable environmental conditions make 'bush' flying in Northern Manitoba hazardous and more expensive on a per-ton mile basis in comparison to other high density areas in Manitoba and Canada.[97]

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[97] W. S. Good, THE DIRECT OPERATING COSTS OF A STOL AIRCRAFT IN NORTHERN MANITOBA, Report No. 15, (Winnipeg: Center For Transportation Studies, University of Manitoba,

As a result, STOL aircraft provide a viable service in remote communities that were inaccessible to wheeled aircraft before this new technology came about, while at the same time lowering transportation costs as capital and operating costs are reduced. Technology has the effect of of lessening space and time. This in fact has brought settlements in the North closer together and they enjoy a better quality of living as a result.

Manitoba can benefit to a greater extent from the technological developments instituted in the various modes by adopting a pragmatic approach to the development of their transportation systems. This involves the integration (coordination) of all modes, when necessary, to achieve a more effective movement of goods and services in the best interests of the public. With new technology (ie. car and ski-doo) one has to have the money to use it and the cost of operation becomes a major limiting factor for the low income native residents who utilize this type of technological advance.

3.5.6 Communications

Transportation and communication are complementary in reducing space physically and perceptionally. Improved communications (ie. by satellites) have had the effect of lessening the effective distance between remote communities and the outside world. It could be construed as an alternative

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1974), p. 19.

form of transportation. The lack of communication is a primary obstacle in the development of isolated regions. Communication as a form of transportation can effectively counter isolation and remoteness.

Historically, initial communication in Northern Manitoba was restricted to word of mouth and written letter as the first mail service was provided by the HBC. Before the radio, communication was limited to infrequent mail service. "By the mid-1930's the radio station had become an institution along with the Hudson's Bay Company, the RCMP and the missions"[98] in isolated settlements. The major advance in communication in northern areas came with the advent of the aircraft. The geographical layout of Northern Manitoba made the aeroplane the most logical means of transportation and communication made the operation of this mode safer. "While...the aeroplane contributed greatly to the welfare of the area's population, communication was the link that made the difference between isolated and non-isolated areas."[99] A more convenient means of communication in the North was brought about by the mineral resources of the area and an accelerated program of social welfare for the native population.

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[98] O. T. Howey, "Communications", in C. S. Beals, ed., SCIENCE, HISTORY AND HUDSON BAY, Vol. 2, Ch. 12, (Ottawa: Department of Energy, Mines and Resources, 1968), p. 770.

[99] IBID., p. 771.

Telephones have tied people together, reducing isolation. "In Northern Canada, television takes the place of the telephone as an integrating connecting medium. It integrates northern residents into the national consciousness of the country..."[100] The North is being opened up by roads and railroads, but it is the electronic media that is opening up the North to a greater extent. Television is having a significant impact on native youth as it increases awareness of different lifestyles.

Communication technology is all important in remote native communities, but it is inadequate by southern standards. Also television programs originate exclusively in the South and there are not enough native programming on T.V. or the radio. Communication technology should be adapted to the environmental and social needs of northerners. "Without adequate and effective communications, economic and social development will inevitably be retarded, and may be counter-productive."[101] Information must be free and adequate to provide underdeveloped people with the opportunities other members of society possess (ie. employment).

Adequate communications (mail and telephone service) are required to meet modern standards. A minimum standard as proposed by the Mauro Report was available facilities for voice communications to communities over 50 people. This

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[100] Jim Lotz, NORTHERN REALITIES, p. 25.

[101] Manitoba Metis Federation, IN SEARCH OF A FUTURE, p. 12.

has been implemented as the Manitoba Telephone System introduced a policy in 1972. The first priority was to provide at least radio telephone service (minimum standard) to all communities of more than 50 residents. The next priority was to upgrade these services. Most native communities in Northern Manitoba have dial service, but there are still some native communities (ie. Brochet, Shamattawa) that have inadequate communication facilities (radio telephone) which are unreliable.

To a great extent the communication facilities of remote Northern Manitoba communities supersede those of the physical infrastructure in reducing isolation and remoteness. This is not to say, however, that because native communities have a minimum standard of communications that reduce isolation, that alternative modes of transportation should not be provided.

3.6 Conclusion

In closing, one can see that in the development of Northern Manitoba's transportation linkages, the primary purpose was for resource development and extraction. Right from the building of the Hudson Bay Railway for the benefit of grain transport, until the present day, the transportation networks for Northern Manitoba have been geared for exploiting the natural resources of the area. The pattern of geographical dispersal throughout Northern Manitoba made matters

worse for native communities. Characterized by point development, the settlement pattern made it uneconomical to provide surface facilities to each community. Relying on economics as a base, a transport network was built servicing the most economically justifiable points -- the resource based centers, neglecting the remote native communities.

The remote native North was neglected until the late-1960's. It was not until the Federal Government announced their air policy for Northern Canada (refer to section 4.5.1), and until Manitoba established their Department of Northern Affairs, that greater attention began to be paid to the remote native areas. These areas have been subjected to higher transportation costs due to the fact that a majority of them have only one year-round mode of transport available to them, the more costly air mode. All-weather roads to most of these communities are not feasible due to a low level of population and low travel/freight demand. The winter road system, administered by the Province, attempts to alleviate this problem by providing lower transportation costs, relieving isolation and increasing mobility. However, the remote native communities still spend a disproportionate share of their income on transportation costs. Therefore, the provision of more adequate facilities or a system of subsidies is required to bring their costs in line with, not only, the industrial North, but the South as well.

Chapter IV

NORTHERN MANITOBA TRANSPORTATION POLICIES AND PROGRAMS

4.1 Introduction

This chapter deals with the various transportation policies enacted by the senior levels of government that have effected the socio-economic development of Northern Manitoba.

When it comes to providing a transportation system, a government may pursue an explicit or implicit policy. Transportation policy is aimed at detecting problems and providing solutions for the development and maintenance of an effective and efficient system, both socially and economically. Transport policy "goals are formulated in terms of 'efficiency' and/or 'economy', on one hand, and 'adequacy' and/or 'public interest' on the other."[102] This is affected by the limitations placed on the available resources a government has at its disposal.

The impacts of transport policies have to be assessed in terms of other social and economic activities, as well as on other parts of the transport system. Policy is designed so

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[102] K. W. Studnicki-Gizbert, TRANSPORT POLICY - THEORY AND PRACTICE, (Ottawa: Canadian Transport Commission, Economic and Social Analysis Branch, 1975), p. 6.

that an "optimum" solution is adopted from a set of evaluated alternatives within posed uncertainties and constraints. As well, transport policy has to be co-ordinated with regional development as transport problems are inherently interrelated with development planning.[103] Since the policy process is dynamic, redirection or adjustment is required in order to maintain an effective system.

The discussion in this chapter entails both explicit and implicit policies that have had an effect on the provision of transport infrastructure and services in Northern Manitoba. The various national/federal, provincial and regional policies that have been put in place over the years to deal with the problem of enhancing socio-economic development of Northern Manitoba, are analyzed, with particular reference to remote native communities.[104]

It is realized that transport provision is not the sole answer to socio-economic development but one component, albeit an important one, in the overall picture of regional development. It has to be recognized as such and co-ordinated with other policies effecting regional development in Northern Manitoba.

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[103] IBID., p. 33.

[104] For a brief description of all policies affecting transportation in Northern Manitoba used in this chapter see Appendix B.

4.2 National/Federal Policies

"National policy since Confederation relative to transportation facilities has emphasized two objectives: the achievement of rapid economic expansion, and the equalization of benefits of such expansion in all regions of Canada."[105] Transport has been tied into the social, political and economic life of Canada from the earliest times. National transportation policies were aimed at national unity which concerned canals, the Transcontinental Railway, Air Canada, the Trans-Canada Highway and the St. Lawrence Seaway. National policy aimed at providing economic, efficient and adequate transport facilities for Canada using all modes of transport at the lowest cost. This has been explicitly stated in the National Transportation Act of 1967 (NTA), which was used as an instrument of national policy. The NTA adopted many of the MacPherson Commission's recommendations, which assumed that competition would provide the economic stimulus for the development of transport services. Government adopted a passive role, providing infrastructure and compensation for resources, facilities and services that were deemed in the public interest. With new technology the productivity of the various modes increased (ie. rail moved from steam to diesel in the 1950's and incorporated the concept of the unit train, air moved from turbo to jet aircraft in the 1960's, and the introduction of containers in the 1960's for inter-modal use). Hence, the NTA recognized the

[105] A. V. Mauro, p. 124.

inter-modal nature of transportation. The regulations governing the various modes were unified by the creation of the Canadian Transport Commission (CTC). The CTC was to advise the Minister of Transport on Canadian transport policy. The transportation system depends on the maturity of the system and degree of competition. The NTA related to a mature, highly developed system with a high degree of competition among the various modes.

Concerning transport in northern remote areas, the NTA was found to be deficient. An undeveloped, uncompetitive system is usually the norm in remote areas. There is a low level of service and many carriers cannot compete due to a number of conditions (ie. volume of traffic, geography, etc.). Transport in the North was usually characterized as ad-hoc, as overlapping government departments at both federal and provincial levels, with different administrative regions were administering their own policies. The lack of co-ordination between the different agencies with transport responsibilities in the North existed. The need for inter-departmental planning was evident and as a result transport provision was re-active up to the 1970's.

A transportation policy has to be co-ordinated with an overall plan for northern regional development. In 1975 a new National Transportation Policy was delineated. Though not formally adopted, it provided a background guide for thinking which progressively loosened regulation. It stated

that there were four contexts in which transport policy has to be developed in order to use the full potential of transportation as an instrument of national policy. The first context is a highly developed system with a high level of competition. Government intervention is limited to the prevention of monopolistic conditions and for safety and environmental questions. The second context is a highly developed system with a low level of competition. Efficiency results from one mode, one carrier. Government intervention is regulatory in nature to prevent monopolistic or quasi-monopolistic conditions. The third context is an undeveloped system with a low level of competition. This characterizes remote areas.

> Government action should be developmental, designed to encourage the development of transportation, where necessary through direct investments, subsidies or grants; regulatory designed to ensure that the system operates in an economic and equitable manner; and operational, through the direct provision of transportation services where private services are not available.[106]

The fourth context is a developing system with a high level of competition. Government action is developmental to support new technology. Government expenditures are expected to come from general tax revenues to finance capital and operation costs for developing the transport system in certain areas until the system reaches the mature stage. The amount of government intervention would depend on the degree

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[106] Canada, Transport Canada, TRANSPORTATION POLICY: A FRAMEWORK FOR TRANSPORT IN CANADA, SUMMARY REPORT, (Ottawa: Ministry of Transport, 1975), p. 12.

of competition and state of maturity of the transport system.

Up to the 1960's the highest priority of the Federal Government was economic development in the North, through resource extraction. The government indicated that an extension of northern networks would provide access to resources for the Canadian and world markets. The Federal Government gave transport subsidies to private companies as part of their incentive scheme to get developers to exploit the North, while reducing isolation. Thereby government provided a favorable climate for the private sector (industry) to invest.

Transport policy in the North has to do what transportation policy in 1867-1885 did for the South (the Transcontinental Railway) -- unify the nation, as past needs of the South are similar to the present needs of the North. A National policy is needed that combines "the northern regions to the rest of the nation and provide northern residents with an equal opportunity to enjoy the economic and social benefits available to all Canadian citizens."[107] A National policy is needed to provide the necessary facilities (ie. airstrips), provide assistance like railroads receive (ie. reimbursement of passenger services operated in the public interest), and individual compensation (through indirect measures of income tax legislation and regulation)

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[107] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 49.

for burden of high transport costs in the North as delineated by the Mauro Commission. The impact of transportation and communication on development will be the same for the North as it was for the South.

Opening up the under-developed North will require vast amounts of infrastructure investment, as major extensions are needed. Reasons why the Canadian Government became interested in northern affairs were to show that Canada owned its northern lands, the discovery of mineral wealth, and the concern for native welfare in the North. Therefore, they undertook policies to achieve a national objective of unifying Canada's North with the rest of the country.

4.3 Regional Policies

A plan for northern regional development as was stated in the Mauro Report requires, "a concerted approach to the problem of remoteness, isolation, climate, transport and communications and development of...physical and human resources."[108] The Mauro Report espoused a minimum standard of adequate transportation and communication facilities and services to enhance the development of Northern Manitoba through a concept of adequacy. This entailed a minimum standard of transportation through some uninterrupted mode (standard of facilities) at a reasonable frequency (availability of service) and cost (rates payable), plus public convenience and necessity. Provision of the minimum stan-

[108] IBID., p. 444.

dard of transport facilities is not enough as irregular service or prohibitive cost does not satisfy the transport needs of the North. This is why the minimum service had to be provided along with minimum frequency and reasonable cost to meet the criteria of adequacy. Re-equipment programs are necessary so lower cost, more efficient aircraft can be utilized at equitable rate levels.

In 1969 there was no minimum standard of transport for East of Lake Winnipeg and the North. There was a lack of landing facilities to provide year-round service to northern communities. While winter roads provide movement of commodities, passenger service is mainly limited to air. The points in Manitoba which lacked the minimum requirements of transport services were to a large extent, the native communities. The minimum requirements were needed to improve socio-economic development. This consisted, according to the Mauro Report, of a weekly unit toll service.

> Social implications resulting from a failure to provide minimum essential services cannot be quantified. The situation must be remedied without regard to cost benefit analysis. Beyond the problem of the individual resident there are direct economic and social penalties to the northern region resulting from inadequate transport service.[109]

The need for a minimum level of transportation and communications is the same as for health, education and welfare. This condition has been alleviated somewhat over the years.

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[109] IBID., p. 42.

The absence of a minimum standard of transportation is reflected in the increased cost of transportation some of these remote communities face. The native communities suffer from additional problems (not only high transport costs) of increased inventory, irregular mail delivery, lack of fresh food-stuffs and lack of health and medical services. Throughout the hearings conducted by the Mauro Commission, repeated pleas for airstrips were requested along with better communications and winter roads. Access to the larger regional centers is required if the natives are to participate in the socio-economic development of the North. Any policy that disregarded the social characteristics of native life or aimed at breaking up the communities would fail. "What is required is a policy that will respect the unique social aspects of native life in the North and encourage participation in the economic life of the region."[110] Proper transport facilities that encourage economic participation, while retaining social contacts with these communities is required.

Co-ordination is needed for policies concerning all modes of transport in the northern region to relieve isolation and remoteness as costs are extremely high. For instance, communication links are closely tied to transportation services. In fact communication is the transport of information. Communication facilities are the life lines of remote communities and should be provided accordingly as one part of an

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[110] A. V. Mauro, p. 99.

overall scheme.

"While ready and low cost accessibility to, and communications with, the outside world appear to be obvious solutions, the economic realities of such amenities are often such that only minimal services of this nature can be provided in remote communities."[111] Due to the limitations imposed on the state (financial and otherwise) a minimum standard of transportation and communication should nonethe-less be provided as a social objective to reduce isolation.

4.4 Federal-Provincial Policies

A plan for northern regional development that is applicable to all regions of Northern Canada is needed, but it has to be determined what nature and function transportation has in the overall goal of northern development. There is a need to co-ordinate activities so the North grows in an efficient and effective manner. Transportation development has to be considered in the overall context of economic development and within the imposed financial and legal constraints as the provinces can only do so much. Federal involvement is necessary which includes national objectives, as provincial coffers are insufficient to undertake a comprehensive program concerning northern development. A plan

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[111] L. B. Siemens, PLANNING COMMUNITIES FOR THE NORTH: SOME SOCIAL AND PSYCHOLOGICAL INFLUENCES, Series No. 5, Occasional Paper No. 1, (Winnipeg: Center For Settlement Studies, 1970), pp. 69-70.

for northern regional development was needed immediately, the Mauro Commission stressed in 1969, that was co-ordinated between Federal, Provincial and Municipal Governments in order to achieve an efficient transportation system. This framework was followed to an extent in the mid 1970's as the Federal and Provincial Governments entered into a number of agreements.

4.4.1 General Development Agreement

Federal-provincial comprehensive policies for Northern Manitoba originated when Canada and Manitoba signed a General Development Agreement (GDA) June 5, 1974. The GDA encouraged socio-economic development in Northern Manitoba and was to co-ordinate programs for a 15 year period.

4.4.2 Manitoba Northlands Agreement

Under terms of the GDA, the Canada-Manitoba Interim Subsidiary Agreement on the Manitoba Northlands (1974-1976) was signed June 5, 1974 for a comprehensive socio-economic program. The Manitoba Interim agreement, supposed to run for one year only, allowed for the development of a long-term subsidiary agreement for Northern Manitoba. The Interim agreement was extended until 1976 when the Canada-Manitoba Northlands Long-Term Agreement (1976-1982) was signed September 15, 1976. This long-term agreement was intended to be a 10-15 year agreement, administered in 5 year increments. The Manitoba Northlands Agreement's objectives were:

- to provide options and opportunities for people in Northern Manitoba to participate in the development of the region
- to provide an opportunity for people to undertake their own way of life (ie. maintain traditional way if desired)
- to encourage the orderly utilization of natural resources
- to improve the quality of life
- to promote community economic development
- to improve transportation and communications
- and to improve health, education and social programming

The programs focused on:

- human development and community services
- resources and community economic development
- area transportation and community services
- and planning and implementation

The programs were cost-shared between the Federal and Provincial Governments (60/40) with a total of $162.916 million being allocated (Federal- $110.590 million, Province- $52.407 million).[112]

The transportation and communication component of this agreement was to move towards providing reliable and reasonable access to all northern remote communities for the transport of people, goods and services and to ensure communication facilities to increase participation of people in community, provincial and national affairs. By improving physical access to remote communities, socio-economic

[112] Canada, CANADA-MANITOBA NORTHLANDS SUBSIDIARY AGREEMENT, (Ottawa: Department of Regional Expansion, 1979), n.p.

options were enhanced. Also the provision of these facilities resulted in the reduction of freight and passenger costs, thereby relieving the high costs of living experienced in northern communities. Transportation also had a positive effect of community based economic development.

Surface transportation was provided to remote communities where roads provided a practical extension of the existing system. The airstrip program provided funding ($5,848,300 for 10 airstrips)[113] for upgrading or construction of airstrips of a Class D nature to remote Northern Manitoba communities which did not have alternative or adequate transport facilities; plus the provision of navigational aids to improve reliability and funds for maintenance equipment.

Under the Human Development and Community Services program, upgrading or construction of community internal roads was provided for. The surface transport program and airstrip program were cost-shared. The Hickling-Johnson Manitoba Northlands Transportation Study evolved under the Northern Transportation Strategy Development program of the Manitoba Northlands Agreement. It looked at two time frames: a short-term, 1975-1980; and a long-term, 1980-1990.

The Manitoba Northlands Agreement had an implicit focus on the socio-economic development of native people. It also upgraded services for rural and remote northern areas. The agreement was to expire March 31, 1981 but was extended one

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[113] Manitoba, CANADA-MANITOBA NORTHLANDS AGREEMENT 1976-1982, PROGRESS REPORT, (Winnipeg: Manitoba Department of Northern Affairs, 1982), n.p.

year because a new agreement, the Canada-Manitoba Northern Development Agreement, was not yet signed and Northlands projects were incomplete.

4.4.3 Northern Development Agreement

On November 29, 1982 a development strategy, the Canada-Manitoba Northern Development Agreement 1982-1987 was signed. It was set to terminate March 31, 1987, but the principle ministers reached agreement to extend the strategy for two years (March 31, 1989) with new money being allocated. It is basically the same, with one program deleted. The Northern Development Agreement like its predecessor, the Northlands Agreement, is to provide implementation of the development opportunity under the terms set out in the GDA. The Northern Development Agreement is a continuation of the long-term northern development effort, though it does place greater emphasis on local economic initiatives through the utilization of available natural resources. It also recognizes that human development measures and community improvements are still needed.

The Northern Development Agreement also provides for the construction or upgrading of community roads to an established base level of local services to allow for the provision of public services. The Federal Department of Indian Affairs and Northern Development (DIAND) funds 100% of a program to provide an established level of local services to northern Indian Reserves and Status Indian communities. The

Manitoba Department of Northern Affairs and Department of Highways implement a similar program to provide an established level of local services to remote northern communities under the jurisdiction of the Manitoba Department of Northern Affairs. This program is cost-shared (60/40) with the Federal Government paying the larger share. Improving internal infrastructure is a component of this program.

There is also a remote airstrip program in the Northern Development Agreement. The objective of the remote airstrip program is to provide year-round reliable all-weather airstrips and related facilities to northern communities that do not have an alternative mode of transport available to them. Remote airstrips under the Northern Development Agreement provides for the construction or upgrading to a Code 2 standard in northern remote communities, the provision of necessary capital equipment and buildings to maintain and operate these facilities, and installation of basic air navigational services to improve reliable use. This is to improve the movement of people and goods, as well as services (ie. medical). The program is cost-shared between the Federal and Provincial Governments (60/40) with $3.3 million being allocated for the initial 5 year period.[114] Projects are implemented by the Manitoba Department of Highways through its Airport and Marine Division.

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[114] Manitoba, CANADA-MANITOBA SUBSIDIARY AGREEMENT ON NORTHERN DEVELOPMENT, (Winnipeg: Manitoba Department of Northern Affairs, 1982), n.p.

4.4.4 Subsidiary Agreement On Transportation Development

An economic and regional agreement entitled "Canada-Manitoba Subsidiary Agreement on Transportation Development" was signed on January 4, 1984 and came into effect April 1st of that year. Its objective is to invest in facilities and services which will promote trade and industry in order to encourage economic development. A further objective of the agreement is to enhance transportation development in Manitoba. The agreement will end March 31, 1989 but has provisions for renewal. "The quality of life in more remote parts of the province is directly affected by the availability of transport services, with its impact on consumer prices and access to medical and other services."[115]

One program undertakes a transportation analysis to assess the inadequacies of transportation in Manitoba (the assessment of the North is one component of this program). An air infrastructure program sets out to enhance and improve the air transport mode. This program is to be implemented and entirely funded by the Federal Government ($101.68 million).[116] It is undertaking major construction programs, as well as the installation of air navigational aids to sites such as Norway House and Island Lake. This program is co-ordinated with the Northern Development Agree-

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[115] Canada, CANADA-MANITOBA SUBSIDIARY AGREEMENT ON TRANSPORTATION DEVELOPMENT, (Ottawa: 1984), p. 13.

[116] All figures in this paragraph come from the CANADA-MANITOBA SUBSIDIARY AGREEMENT ON TRANSPORTATION DEVELOPMENT, 1984. See preceding footnote.

Figure 9: Manitoba Subsidiary Agreement On Transportation

SUMMARY OF ESTIMATED COSTS 1984-89

($000,000's) CURRENT

PROGRAM	FEDERAL SHARE FEDERAL	FEDERAL SHARE CN	PROVINCIAL SHARE PROVINCIAL	TOTAL 5 YEARS
PROGRAM A				
Transportation Analysis	.2	-	.2	.4
PROGRAM B				
Advisory Committee	.9	-	.9	1.8
PROGRAM C				
Transportation Institute at the University of Manitoba	5.8		5.8	11.6
CN R & D		1.25		1.25
Program Development			1.2	1.2
Operating Costs			1.4	1.4
PROGRAM D				
Air Infrastructure	101.68	-	-	101.68
PROGRAM E				
Improved Highway System	-	-	16.0	16.0
PROGRAM F				
Rail Passenger Services	1.50		0.05*	1.55
PROGRAM G				
Program Administration (Evaluation, Audit Activities)	0.14	-	0.25	0.39
Communications	0.14		0.25	0.39

* The province has indicated its willingness to provide an additional $150,000 in future contributions.

Source: Canada, CANADA-MANITOBA SUBSIDIARY AGREEMENT ON TRANSPORTATION DEVELOPMENT, 1984, p. 21.

ment. Another program for the enhancement and improvement of highway infrastructure is entirely funded by the Provincial Government ($16.0 million)[117] to improve capacity and safety of the provincial system resulting in increased cost savings. A rail passenger service is implemented by the Federal Government and funded jointly by Federal and Provincial Governments. One project is the rail-bus, discussed in section 3.5.5. Its objective is to improve the accessibility of remote communities to regional service centers and reduce operating and capital costs of rail passenger service. A research and development program, and a management capabilities program are also provided for in this agreement. In total, there are 7 programs that deal with transportation development (see Figure 9).

4.5 Federal-Provincial Policies (Air)

4.5.1 Federal Involvement

The Federal Government began regulating aviation after World War I. However, the senior levels of government only began the task of improving air access in remote native communities in Manitoba since the 1960's.

The Federal Government recognized that air transport needed to be integrated with regional development, so on October 20, 1966 a federal air policy was announced. It provided preferential treatment to the five regional carri-

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[117] IBID

ers to operate in remote areas (ie. to serve the North and other Prairie centers from Winnipeg) where essential but uneconomical routes existed. These carriers were given planning stability and priority over a specified route which prohibited another carrier from locating in the same area. The Mauro Report recommended that this policy be extended to include local carriers, as it was noted that without a policy related to the local carriers, the high capital and fixed costs and lack of density would not enable the local carriers to provide lower rates and equalize costs on a mileage basis like Air Canada. This would have been too difficult to administer though. Although this policy provided the much needed interest for Northern Canada it fell short in helping services where they were needed most -- the remote native areas. However, some type of policy should have been extended to the local carriers who provide a necessary social function in an area where alternative transport is largely unavailable. With the disparity in passenger and cargo rates in northern areas, equitable rates should be established. The announcement of this policy in 1966 coincided with the development of the Manitoba Northern Affairs Act.[118]

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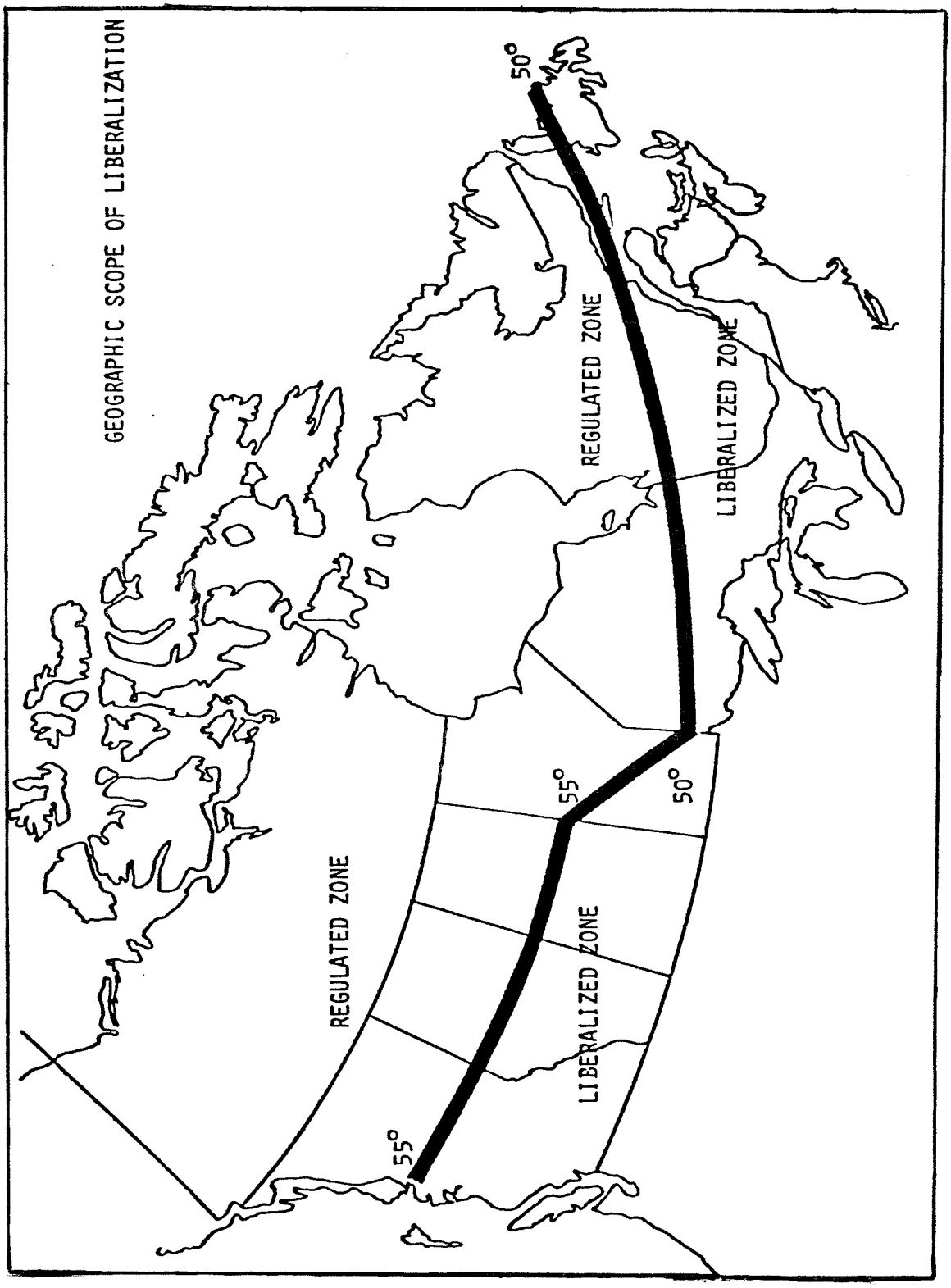
[118] The Northern Affairs Act provided a Commissioner of Northern Affairs who established local advisory committees in remote communities. The Mauro Report recommended the expansion of the Commissioner of Northern Affairs to a full Department of Northern Affairs, instituted in 1974 for the co-ordination of northern development. In 1970 the Northern Affairs Act was amended with the introduction of elected community officials, although the Department retained financial and legal powers.

Figure 10: Demarcation Line Air Policy



Source:
Canada, NEW CANADIAN AIR POLICY, Prepared for Lloyd Axworthy, Minister of Transport, May 10, 1984.

On May 10, 1984, Lloyd Axworthy, then Minister of Transport, proposed a new domestic air policy for Canada. This new policy had a line of demarcation across Canada where regulation would remain north of the line to ensure a level of protection to the communities above it so an adequate level of service could be provided. This line stretched from the 50th parallel at the Atlantic coast to the Manitoba-Ontario border. Then it ran diagonally to the 55th parallel on the Manitoba-Saskatchewan border and from there to the 55th parallel on the Pacific coast (see Figure 10)(this line was amended to the 53rd from the 55th parallel in Manitoba on a proposal by the Manitoba Government as northern markets had not matured yet). Thompson, however, would be the only community in Manitoba north of the line, in the Air Transport Committee's (ATC) opinion, that would benefit from increased competition from an additional unit toll service by an alternative carrier.

This domestic air policy was dropped when the Federal Progressive Conservative's (PC) came to power. The PC's are trying to adopt a new policy entitled "Freedom To Move" which places more emphasis on competition forces (ie. deregulation in the air industry). Over the years there has been a continuity in policies between the various governments, as there is a general consensus in relaxing regulations.

4.5.2 Provincial Involvement

The Government of Manitoba implemented a strategy for northern airstrip development. It was the intention of the Province to provide year-round air transport to all northern communities with a population of 100 or more without all-weather road access. This policy was based on a hierarchy of service standards since passenger transport to and from these communities is dependent on air. The program has been in effect since 1968 and 32 airstrips have been provided to these remote communities.[119] It was initially implemented by the Commissioner of Northern Affairs (the forerunner to the Department of Northern Affairs). Three levels of service were to be provided. The first level considered airstrips of graded sand or clay (not as dependable as gravel) for communities with 100 or more people. These included: Poplar River, Thicket Portage, Shamattawa, Pikwitonei, South Indian Lake, Ilford, Split Lake, St. Theresa Pt., Sherridon, Bloodvein and York Landing. These landings were designed for emergency landing and did not meet Transport Canada standards. The second level of airstrips were for communities with 500 or more people and consisted of a graded gravel runway, radio equipment and a snowplow. The communities served by daylight visual flying (DVF), included: Berens

[119] Personal communication with Dave Selby, Manitoba Department of Highways and Transportation, Northern Airport Branch. Tadoule Lake was the last airstrip completed. The terms of reference are still intact, but money is mainly used for maintenance, as no new plans for the construction of other airstrips are anticipated at the present time.

River, Brochet, Cross Lake, Gods Lake Narrows, Moose Lake, Oxford House, Little Grand Rapids and Pukatawagan. The third and highest level was airports in Norway House and Garden Hill. These two centers were looked at as regional airports.

Reasons for the provincial air policy was to reduce the cost of float/ski aircraft, improve access to health and medical facilities, improve physical access and communications, and short-term employment would be created. The Provincial Government envisioned air as the most economical mode. Their policy would allow for fly-in services making them readily available to the native population (ie. dental, police, court, medical, etc.). This airstrip policy had the goal of bringing communities up to at least a minimum standard (refer to section 4.3).

In 1973, the Manitoba Department of Mines, Resources and Environmental Management requested a review of the airstrip program so that facilities could be provided for the priorities communities have. A hierarchy of service standards needed to be redone. For instance, communities dependent on air freight should be assured access to a 5,000 foot all-weather year-round airstrip with operating and cartage facilities. Airstrips, according to this report, while for the purpose of relieving isolation year-round, still did not meet the basic requirements as they were to wet and soft in the spring to allow wheeled aircraft. Slow clearing is a

major problem as some communities do not have the necessary equipment to maintain the airstrip.

The Manitoba Northlands Transportation Study also noted that the greatest economic benefit for the Province would occur in the rationalization of the air infrastructure for the remote North (ie. upgrade isolated airstrips to 4,000 feet gravel in the North-Eastern part of Manitoba to accommodate larger more efficient aircraft with related navigational aids).

Ontario had developed a remote airstrip program in 1968 as well. Its objective was similar to Manitoba's in that it attempted to develop a system of airstrips in order to reduce transportation costs and relieve isolation. Seventeen Ontario communities in the North have airstrips with the Provincial Government spending over $22 million on the program. It cost approximately $1.5 million to construct a typical airstrip in the remote North and $100,000 per year to maintain.[120] Most of the airstrips are 3,500 feet gravel runways and lack complete navigational systems. Northern Manitoba communities experience these same problems (see Figures 11 & 12).

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[120] Ontario, TASK FORCE REPORT ON TRANSPORTATION AND LIVING COSTS IN REMOTE NORTHERN ONTARIO COMMUNITIES, p. 32.

Figure 11: Airport Improvements Required In Northern Manitoba

AIRPORT IMPROVEMENTS NEEDED IN COMMUNITIES SERVED BY CALM AIR

Community	Requirements
THOMPSON	- a priority is the inadequate weight bearing capabilities of the taxiway and ramp areas
RANKIN INLET	- ILS and approach lights
ESKIMO POINT	- ILS and approach lights
BAKER LAKE	- ILS and approach lights
CORAL HARBOUR	- ILS
REPULSE BAY	- ILS and approach lights
GILLAM	- ILS
TADOULE LAKE	- requires an airstrip and shelter - lights and beacon when the airstrip is constructed
LEAF RAPIDS	- extension of approach lights
LAC BROCHET	- requires a passenger shelter - beacon - runway extension (currently only 3000 feet)
WHALE COVE	- requires a passenger shelter - could also benefit from ILS and approach light installation
PIKWITONEI	- requires a passenger shelter
CHESTERFIELD INLET	- could benefit from ILS and approach light installation - lengthening of airstrip (currently only 3000 feet)
THICKET PORTAGE	- requires a passenger shelter
GRANVILLE LAKE	- requires an airstrip and a passenger shelter
GOD'S LAKE NARROWS, GOD'S RIVER SHAMATTAWA, LEAF RAPIDS, OXFORD HOUSE	- runway improvements are required; these airstrips are soft, particularly during wet weather, often resulting in accidents

ILS- Instrument Landing System

Source: Submission by Calm Air.

Source:

Canada, Canadian Transport Commission, THE ADEQUACY OF AIR SERVICES IN NORTHERN AND REMOTE AREAS, FINAL REPORT, (Ottawa: ATC, CTC, 1985), p. 67.

Figure 12: Manitoba Remote Airstrip Requirements

Part A - Communities Requiring Airstrips

Community	Other Means of Transport
GRANVILLE LAKE	- winter road from Lynn Lake (irregular) - float and ski aircraft dependent upon conditions - water traffic (local transportation)
GODS RIVER	- private airstrip leased on crown land
OXFORD HOUSE	- airstrip is currently usable but major reconstruction is required
POPLAR RIVER	- airstrip is currently usable - barges and water transportation - winter road (irregular)
SHERRIDON	- rail service 3 times per week - float and ski aircraft - partial road to within approximately 12 miles of community
TADOULE LAKE	- float and ski equipped aircraft - winter road from South Indian Lake (very irregular)
WASAGAMACH	- winter road and water travel to Stevenson Island airstrip

Part B - Airports Requiring Upgrading

Community	Upgrading Required
BERENS RIVER	- fire hall, runway lights, lighted windsock
BLOODVEIN	- fire hall, fire truck and apparatus, maintenance shop, maintenance equipment, runway lights and communication equipment
BROCHET	- communication equipment, lighted windsock
CROSS LAKE	- gravel, concrete floor on equipment shop
GODS LAKE NARROWS	- gravel, lighted windsock
ILFORD	- fire hall, runway lights, concrete floor in equipment shop
LAC BROCHET	- concrete floor in equipment shop, fire truck and apparatus, runway lights, gravel
LITTLE GRAND RAPIDS	- fire hall, lighted windsock, communication equipment
PIKWITONEI	- fire hall, gravel, runway lights
PUKATAWAGAN	- fire hall, communication equipment, lighted windsock
RED SUCKER LAKE	- fire hall, communication equipment, lighted windsock
ST. THERESA POINT	- gravel, communication equipment, lighted windsock, fire hall, runway lights
SHAMATTAWA	- maintenance equipment, communication equipment, lighted windsock
SOUTH INDIAN LAKE	- fire hall, fire equipment, communication equipment
THICKET PORTAGE	- gravel, fire hall, communication equipment, runway lights, lighted windsock
YORK LANDING	- gravel, communication equipment, lighted windsock

Source: Submission by the Department of Highways and Transportation, Government of Manitoba.

Source:
Canada, Canadian Transport Commission, THE ADEQUACY OF AIR SERVICES IN NORTHERN AND REMOTE AREAS, FINAL REPORT, (Ottawa: ATC, CTC, 1985), p. 73.

4.5.3 Adequacy of Air Services

In conducting a report on The Adequacy of Air Services in Northern and Remote Areas, the ATC encountered numerous complaints about air services. The over-riding concern (refer to section 3.5.2) is the high cost of travel. Routes to northern and remote areas served by major carriers do not follow Air Canada's fare formula. Fuel costs, which are considerably higher in northern and remote areas, was cited as being the main reason for this. Aside from this, higher costs are attributed to:

- maintaining stations (ie. higher construction, labour and resident costs)
- lack of low cost all-weather surface transport
- use of small aircraft not designed to carry cargo which results in high cargo costs
- small payloads of aircraft
- airstrips not designed to accommodate large, more efficient aircraft
- and no economies of scale exist for fuel and capital goods

Also high on the list of complaints brought before the ATC were the inadequate facilities and related equipment experienced in northern remote areas, which result in higher costs as smaller, less efficient aircraft have to be used. The condition of airport infrastructure also adds to operating costs (ie. replacement of tires etc.).

After a review of the subsidy system implemented in Quebecair and Eastern Provincial Airlines (EPA), the ATC stated

that direct subsidies may not be the answer as little incentive for economically efficient operations are offered. They recommended that the government not implement a direct subsidy program, but explore other ways of achieving lower costs and fares, which include:

- type of equipment operated
- deficiencies of runways and navigational aids
- and the incidence of numerous taxes, fees and leases imposed on carriers by various levels of government and their agencies

They suggested that the senior levels of government adopt measures to reduce the numerous taxes, fees and leases imposed on Northern airports which in turn would reduce the high cost of travel in northern and remote areas. The ATC indicated that

> if a concerted effort by the Federal and Provincial/Territorial Governments was made to eliminate government fees, taxes, charges etc.,...at airports throughout northern and remote areas and the Canadian Air Transportation Tax was eliminated, the total costs of travel could be lowered by as much as 15-20%.[121]

This will only lower costs if these savings are passed on fully to the consumer.

With the complaint of inadequate facilities and related equipment, the ATC surmised that the

> construction of adequate runway facilities and other airport infrastructure, including the deployment of suitable all-weather navigational aids and the like, is an essential and integral step to the realization of adequate, reliable, low

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[121] Canada, Canadian Transport Commission, THE ADEQUACY OF AIR SERVICES IN NORTHERN AND REMOTE AREAS, FINAL REPORT, p. 45.

cost air transport to these communities.[122]

Therefore governments should improve these facilities to develop a reliable means of access to remote northern communities. However, any positive action in that direction is mired in jurisdictional problems. There are different levels of airport infrastructure deemed acceptable by senior levels of government. The ATC proposed that the various actors providing airport infrastructure co-ordinate their activities so that an agreed minimum standardization can be reached (ie. length of runway, navigational aids, etc.)(see Appendix C).

In order to reduce costs further the ATC stated that government help replace existing outdated high operating cost equipment through a capital asset acquisition program to reduce short-term risk associated with the provision of air services in northern remote areas. Consequently, the consumer would realize lower fares and cargo rates.

There are many communities in Northern Manitoba that could benefit from improved airstrips, and navigational facilities as the problems that face them today seem to have been evident for the last 20 years (see Figures 11 & 12). By following these suggestions, a more reliable cost efficient system can be developed in the best interest of the public. In the eyes of the ATC, government can take a more pro-active role in the provision of services so that a more conducive environment can be developed.

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[122] IBID., p. 64.

The senior levels of government believed that with the remote location of native settlements, a program of air-strips was the only way of providing reliable transportation at a reasonable cost. Even though this attitude has persisted, many of the remote communities still lack what the Mauro Report deemed an adequate minimum standard.

4.6 Federal-Provincial Policies (Road)

A good system of roadways facilitates the development of the resources of the area and greatly reduces the cost of distributing consumer goods to the communities in question. Also, when a road is built to a community, consumption of goods is likely to increase (generated demand) for the simple fact that more goods are easily available. It was this type of thinking that led the two senior levels of government to develop their various road policies concerning northern development.

4.6.1 Federal Involvement

Intra-provincial jurisdiction over the highway and road systems was given to the provinces and therefore, expansion of the country's road system tends to take on provincial, rather than national interests. However, national policies were designed to alter this situation as shown by the Trans-Canada Highway Act of 1949 and the "Roads to Resources" program instituted in 1958. Transportation in this sense was used as an instrument of national policy.

Between 1947-1951 federal aid was received for the construction of the Snow Lake - Wekusko and The Pas - Flin Flon roads in Manitoba. But the thrust of northern development spread when Prime Minister John Diefenbaker's "Northern Vision" helped create "a situation in which few people seriously questioned the view of the North as a storehouse of resources."[123] Attention was focused on physical obstacles to resource extraction and the extension of southern type settlement (ie. Thompson). Developing the North in Canada was equated with developing the mineral resources. Unfortunately this mentality continues to exist today, although it is not quite as prevalent. The "Roads to Resources" program of 1958, implemented by Diefenbaker which lasted until the early-1960's (just his term in office) was responsible for this. The program was for the construction and development of roads leading North, designed to open up new resources. Government policies in the late 1950's and 1960's focused on resource based economic development of the North for national strategic goals. The "Roads to Resources" program illustrated the government's nationalistic approach to developing the North. This program involved extensive subsidization of mineral exploration and mining. The "Roads to Resources" program was a joint federal-provincial cost-sharing agreement, which put a maximum of $75 million federal monies into the construction of 5,000 miles of roads in Northern Canadian resource areas. This investment was warranted only if

[123] Science Council of Canada, NORTHWARD LOOKING, p. 40.

there was a direct economic gain to Canada. With federal support, construction of roads for mineral exploitation saw the emergence of a new type of settlement, that of a single industry town in Northern Canada. Manitoba received federal aid under this program for northern road development (a list of roads constructed in Manitoba are outlined in section 3.5.3.1).

4.6.2 Provincial Involvement

It soon became evident in Manitoba that the "extension of the highway system and improvement of road surfaces [was] essential if the highway system was not to become a bottleneck that would retard the economic expansion of Manitoba."[124] The 1960 Manitoba Department of Highways study only looks at Northern Manitoba road development in terms of economic requirements. For example, the Gypsumville - Grand Rapids road was viewed as urgent for special requirements for resource service. Other communities that needed road service for social or other reasons were ignored. This study reflected the thinking of the time, that transport planning was solely based on engineering criteria and was devoid of public interest elements.

Manitoba has moved away from this position and now includes other needs (social, financial, economic, etc.) in their road transport policies. The MMF stated that govern-

[124] Manitoba, Department of Public Works,Highways Branch, MANITOBA HIGHWAYS: PLANNING FOR TOMORROW, (Winnipeg: Department of Public Works, Highways Branch, 1960), p. 23.

ment policy on road building should reflect social and economic benefits to native communities, financial implications to government (ie. employment created which reduces welfare payments) and be a generator of employment. Problems constantly spring up due to the financial constraints the government must adhere to and the exorbitant cost of all-weather roads. Study after study indicate how uneconomical all-weather roads are to construct to remote communities. For instance the Manitoba Department of Mines, Resources and Environmental Management study (1973) stated that to construct all-weather roads to remote communities based on the costs and limited demand for freight would be unjustified. This creates a dilemma as "all-weather roads are considered by many people in our society as a social right rather than a privilege."[125] Due to this attitude, this study noted that the Province should develop a long-range plan (25 years) for the development of all-weather roads in conjunction with winter truck roads. Priority should be placed on specific routes so that the road construction expenditures are spent in the most efficient manner. However, the "ultimate decisions between choices and concerning priorities, will be in response to perceived social needs and affordable levels of investment."[126]

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[125] Manitoba, Department of Mines, Resources and Environmental Management, STUDY OF FREIGHT TRANSPORTATION TO REMOTE NORTHERN MANITOBA COMMUNITIES, MAIN REPORT, done by K. McKenzie, R. Ruhr, and R. Simpson, (Winnipeg: Department of Mines, Resources and Environmental Management, Resource Planning Branch, 1973), p. 227.

Manitoba, through the various transportation studies that have been done over the years, have realized that a system of feeder highways can best suit the needs of Northern Manitobans. The concept of feeder highways suggests that highway planning can be most effective when co-ordinated with the overall transportation requirements of the North. With a co-ordination of policies concerning the various modes, a concerted effort has to be undertaken to provide a efficient transportation network within the constraints posed. This philosophy has led to the development of Manitoba's extensive wheeled vehicle winter road program (refer to section 3.5.3.2) in order to enhance the quality of life experienced in remote communities. The programs and policies provided are very realistic to say the least, taking the various limitations into consideration.

4.7 Implicit Government Policies Affecting Transportation In Northern Manitoba

Government policies in Manitoba that are implicit and not directly related to transportation have affected the provision of the transport network in Manitoba. Two such policies are the concepts of growth centers and the stay option.

The Mauro Report indicated that senior levels of government should pursue a policy of specified growth centers to discourage population dispersal in Northern Manitoba. This

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[126] Hickling-Johnson Ltd., MANITOBA NORTHLANDS TRANSPORTATION STUDY, EXECUTIVE SUMMARY, p. 25.

report saw future development in the North based on the efficient utilization of the natural resources. Growth centers were proposed as it was assumed that a dispersed population cannot be served adequately and economically in the provision of the basic goods and services of present day society. With the establishment of designated areas for growth centers, the government would then be able to offer inducements to northern people to move into resource based centers. This concept of growth centers was aimed at enhancing northern regional development.

The rationale behind the movement of people from isolated communities to the new resource based areas was mostly economic. It would free up the much needed resources to be used to promote and strengthen the well-being of the growth centers. With growth centers, the transport network in Northern Manitoba would be concentrated on providing primary service to these centers from the major southern communities, and secondary links with adjacent communities. Fixed transportation services would be provided in the permanent growth centers, while flexible service would be provided in the working (non-permanent resource exploitation) centers.

This reasoning of the 1960's and early 1970's totally neglected the permanent native population centers of Northern Manitoba. Ironically, though the general concept of growth centers neglected the permanent native communities, the Mauro Report foresaw the development of Island Lake as one of Northern Manitoba's growth centers.

In the early 1970's a realization of the social ramifications and costs of such a policy on the native people and urban areas, were determined to be enormous. This type of implicit migration to growth centers was one step below government forced migration policy enacted in the 1950-1960's (refer to section 2.5.1.2). Fortunately, the Manitoba Government in its GUIDELINES FOR THE SEVENTIES, document, moved away from this thinking and adopted the concept of the "stay option".

The REPORT OF THE COMMISSION ON TARGETS FOR ECONOMIC DEVELOPMENT (T.E.D. REPORT) was first to realize that Manitobans should have "the freedom to be capable, in reality of choosing where to live and what work to engage in."[127] The government, through regional development, would improve the quality of life for these residents. This was the basic philosophy behind the stay option, although it never was adopted until GUIDELINES FOR THE SEVENTIES was published. GUIDELINES FOR THE SEVENTIES contained four main principles to improve the quality of life in Manitoba, which were:

- a maximization of the general well-being of all Manitobans
- greater equality of the human condition
- an effective stay option
- and greater public participation

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[127] Manitoba, MANITOBA TO 1980, p. 452.

The government introduced the stay option "to provide people in Winnipeg and in rural and Northern Manitoba with the opportunity to live and work without disadvantage in the particular region of the province in which they have their roots."[128] The stay option for Northern Manitoba meant that the residents were to benefit from opportunities from northern development and from the development of their traditional resources. With the stay option people would be afforded the means of staying in their region of the province and they would not be forced to move elsewhere due to economic hardship. "With the stay option the government...provided Manitobans the opportunity to live and work in the area of their choice. For the stay option to become a reality, local communities must be able to develop viable economic bases."[129] The need for a stay option was noted as it was intended to minimize the human adjustment problems of large scale forced migration. This would enable urban areas to improve the quality of life of their residents instead of providing facilities and services required by migrants.

The stay option has covertly affected the transportation in Northern Manitoba as efforts to improve transportation and communications would reduce barriers of isolation which make the government seem distant to northerners, especially in the remote communities. "The availability of adequate

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[128] Manitoba, Planning Secretariat, GUIDELINES FOR THE SEVENTIES, Vol. 1, p. 14.

[129] IBID., Vol. 1, p. 147.

transportation does not necessarily ensure growth and prosperity, but the absence of reliable transportation contributes to economic stagnation."[130] Decentralizing government administration and services would also reduce the sense of remoteness and isolation. Improved transport services have to be provided in the North not only to increase the mobility and quality of life, but to act as an essential for economic development.

A well developed communications system would also enhance the stay option as residents would receive the necessary information on job opportunities, aided by the fact that T.V. and radio reduces the feeling of isolation and boredom in remote communities.

4.8 Governmental Jurisdictional Problems

While there are jurisdictional problems in delivering a transportation network to northern communities, a lot of them have been co-ordinated since the mid-1970's with the advent of the various development agreements pertaining to Northern Manitoba. Before this time "different government services delivered by different levels of government to different components of the community...reinforced community fragmentation."[131] These jurisdictional problems hindered effective resource management of the North. "Some problems

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[130] IBID., Vol. 3, p. 49.

[131] Hickling-Johnson Ltd., MANITOBA NORTHLANDS TRANSPORTATION STUDY, GENERAL APPENDIX, p. II-52.

are constitutional, while others reflect the administrative framework which has evolved in response to political requirements and pressures. As a result, jurisdictional patterns often make no sense in terms of rational resource use planning."[132] Added to this, is the division between Treaty Indians and Metis. They consist of two governing bodies (a local band council and a local community council) which are administered to by two outside governments, federal and provincial respectively, who supervise programs. These problems are minimized now with both senior levels of government working together in development agreements.

The one big area where jurisdictional problems occur is in the air transport mode. As stated in section 4.5.3, there is no minimum standardization for air infrastructure and related equipment as different levels of adequate infrastructure are used by both governments. This constituted a problem as both governments instituted an airstrip program, although it has been minimized since the mid-1970's though co-ordination development agreements. There are no jurisdictional problems relating to highway and winter roads as the Province has constitutional powers regarding roadways (the Federal Government just provides funding). Water transport is governed by the Federal Government, but no perceived jurisdictional problems exist.

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[132] Science Council of Canada, NORTHWARD LOOKING, p. 67.

4.9 Positive And Negative Impacts Of Transportation In Northern Manitoba

With the provision of transportation services, various consequences arise. "Transportation improvements have been cited as having important positive effects on political unity, social cohesion, economic growth, specialization, and price stability, as well as on attitudinal change."[133] However, the author of this quote G. W. Wilson stated that three scenarios can arise from transportation improvements. Firstly, a positive effect occurs as functional distance is reduced more effectively and costs decrease. Economic efficiency is enhanced by transport as resources are utilized more effectively.

Secondly, a middle effect occurs where a transport improvement may use up resources that may have been better used elsewhere creating an opportunity cost. It is in this "grey area" of uncertainty that most of the problems associated with transport improvements occur as different publics have different outlooks. A misallocation of resources can and does occur, and errors are inevitable as results cannot be generally foreseen. This may be viewed negatively as transport investments are long-term and decisions are not easily reversible. On the other hand, there is a belief that transport investment is a safe investment. However,

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[133] G. W. Wilson, "The Role of Transportation in Regional Economic Growth", in E. W. Tyrchniewicz and Om P. Tangri, eds., TRANSPORTATION AND REGIONAL DEVELOPMENT, (Winnipeg: Center For Transportation Studies, University of Manitoba, 1970), p. 44.

whether or not transportation investment is viewed positively or negatively depends on who is evaluating it.

Lastly, a negative effect occurs when an increase in transport may have a detrimental effect on the economy. For example, if an area is opened up to foreign competition and it leads to a decline in output per-capita a worsening of regional disparities may occur due to backwash effects. But there may be more danger in investments being too low, rather than too much investment.

There are three types of regions on which transport improvements can have an effect. They are: empty regions where little or no economic activity is taking place, poor regions where there is economic activity, but per-capita output is low and stagnant, and well developed regions where per-capita output is increasing rapidly. A typical transportation situation in remote areas is one of underdevelopment with little or no competition. As a result of this, a low level of service is usually provided due to limited carrier competition because of the nature of the commodity, the geography of the area, the volume of traffic involved and the fact that it is more efficient to move goods by one mode.

Transport investment may or may not have an effect on regional growth in remote areas, but positive effects occur regardless. Transportation improvements by themselves may not stimulate economic development in remote areas, but

transport investment has to take social as well as economic objectives into account. Transport improvements "can have a significant impact on...the distribution and the diversity of industry and employment, as well as the standard of living and quality of life across Canada."[134]

Costs of living are higher in the North than they are in the South, but the difference is even greater when remote communities are pitted against Southern Manitoba. "Despite the constantly improving condition of Manitoba roads, all northern communities remain a long way from main cities that supply all the services...described lacking in the North."[135] Higher transport costs (a major factor), higher energy costs and higher handling costs all contribute to the higher retail prices that exist across northern and isolated regions of Canada. By providing transport improvements, indirect benefits such as narrowing of price differences within the region occur. However, there are other influences aside from transportation costs that lead to higher food costs. They include: greater risk, slower inventory turnover, higher cost of carrying inventory, higher credit to customers, seasonability of demand, lack of competition (monopoly power evident), smaller markets, limited access, greater distances and usually one commercial carrier. "Compounding the impact of high prices is the generally limited

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[134] Canada, Transport Canada, TRANSPORTATION POLICY, p. 8.

[135] Manitoba, Economic Development Advisory Board, INCENTIVES, LOCATION AND REGIONAL DEVELOPMENT, (Winnipeg: Economic Development Advisory Board, 1975), p. 211.

level of economic activity and development. There is a broad dependency on government programs for incomes and income support."[136] Therefore, the native population has less discretionary income to utilize as a larger proportion is taken up by transport costs.

The Ontario Task Force Report On Transportation and Living Costs In Remote Northern Ontario Communities found that larger aircraft and winter roads built to wheeled vehicle standards are the most economical modes of transport in reducing transport costs to these communities. This indicates the benefits of the airstrip and winter road programs. "The development of winter roads and air facilities...are predicted entirely on servicing the social, economic and resupply needs of the Native communities."[137] A limitation of the seasonal modes are that they require larger storage facilities and inventories that have to be financed over extended periods of time, thus increasing costs.

Transport access does not necessarily improve socio-economic development but direct employment is created, however temporary, by the transportation system (construction and maintenance). Isolation is removed with the transport link providing increased mobility and levels of service. A change in transportation access though, will divert activity from one mode to another resulting in serious consequences

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[136] Ontario, TASK FORCE REPORT ON TRANSPORTATION AND LIVING COSTS IN REMOTE NORTHERN ONTARIO COMMUNITIES, p. 91.

[137] Hickling-Johnson Ltd., MANITOBA NORTHLANDS TRANSPORTATION STUDY, GENERAL APPENDIX, p. II-19.

for the losing mode.

In assessing whether or not a transportation improvement should take place the positive and negative factors have to be weighed in terms of the community in question.

4.10 Co-ordination Of Transport And Economic Development

Transportation is not an end, but a means to an end. The planning and provision of transport facilities have to be the result of transport requirements and other policy objectives (social, economic and regional objectives, etc.). Transport alone cannot develop latent economic opportunities and will accomplish little. "Transportation is but one aspect of northern regional development. It must be considered in the context of overall planning for utilization of resources, human and natural."[138] GUIDELINES FOR THE SEVENTIES acknowledged this, but stated it would have to be a major component of northern development. It proposed that "it is an 'enabling' medium from which could flow increased employment opportunities, recreation, shopping facilities, banking, legal and social services, hospital care, education, etc."[139]

Changes in the transportation system should be co-ordinated with other programs to enhance socio-economic development of a region and allow members to respond to eco-

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[138] Manitoba, ROYAL COMMISSION INQUIRY INTO NORTHERN TRANSPORTATION, p. 403.

[139] Manitoba, Planning Secretariat, GUIDELINES FOR THE SEVENTIES, Vol. 3, p. 63.

nomic opportunities. This in recent years has been increasingly recognized. An aside to this, is that transportation networks also have to be co-ordinated with community planning, due to the lack of co-ordination between external and internal systems, in order for transport to achieve its goal of serving the people and community.

Planning a transportation system for regional development is very important. "Planning is required to adequately address the impacts of changes in the regional network and to ensure the network evolves in a satisfactory manner for both native and non-native communities."[140] However, most transport decisions have lacked community input, private consultation and inter-departmental co-ordination. Government and government officials have made most of the decisions that pertained to these communities. A value approach to development is needed. Opportunities should be presented to people, not forced on them. What is needed is co-ordination between the community and the senior levels of government. This neglect to include the affected communities in the planning of the external transportation link has been a major downfall. Community input should be included in order for them to deal with the technological change, that will effect their way of life, in the best possible way.

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[140] Lorne Tangjerd, p. 139.

Community and transportation planning must be integrated together along with regional economic development to provide effective results. The goal of regional economic development is to provide the best opportunity to improve the quality of life of the area. **Development** is seen as the tool, rather than **welfare payments,** to achieve this goal. Therefore, regional economic development efforts to increase socio-economic opportunities has to be co-ordinated with transport programs and the local community (so needs and desires will be revealed) in order to develop a successful program. "Government transportation projects do bring specific benefits but the lack of an adequate economic base means publicly provided transportation infrastructure is not a panacea."[141] The transportation system has to be integrated with development planning for the whole region. The other components of an effective development program try to alleviate the stagnant economic conditions faced in these communities. Hence, headway will only be achieved when all components are working together.

It is widely believed that for socio-economic development and transportation policies to succeed, reform from within northern native communities is a precondition, as deplorable native conditions have persisted for decades. Transport alone will not likely be successful in enhancing socio-economic development. The historical native problems (welfare, etc.) have to be understood and dealt with by other

[141] IBID., p. 148.

programs as well. Native communities must face reform from within, and not have external programs forced upon them. In this way a self-help program can develop with important socio-economic benefits that will replace a welfare economy.

The Hickling-Johnson study, contrary to other studies, indicated that transportation was not a major factor in socio-economic development of the native North. It argued that alternative investment programs are also needed. While per-capita income increased with improved transportation access, the study found that transportation access has no difference on Treaty Indians' income, although it has influenced Metis' income somewhat. Incomes vary among native groups, as Metis, on average, earn more than Treaty Indians. Therefore, Hickling-Johnson stated that transportation has not been an effective instrument for the native North.

The Hickling-Johnson study noted that in order to improve quality of life in remote communities, maybe trade-offs have to be made between investments in transport infrastructure and social infrastructure. There is a need for improvements in social infrastructure as most communities have incomplete facilities. Inadequate hydro networks (refer to section 6.2.3), sewer and water, telecommunications, recreation facilities, schools, housing and medical services are prevalent in the majority of native communities. These improvements are necessary to long-term socio-economic development. Due to these shortfalls, the Hickling-Johnson study indicat-

ed that transportation development should not come first in these communities.

In the development of Northern Canada, complex social and ecological problems have to be addressed. The reward is twofold, firstly, domestic as well as world requirements for resources will be enhanced. Secondly, the requirements to improve services and reduce the isolation of northern communities will be met. A rational multi-purpose resource plan has to be developed for the North as now single resource dominates. A strategy of mixed development for the North was proposed by the Science Council of Canada, which would place more sensitivity on traditional patterns of land use. The conflicts between competing land uses (the South's perceived need for mineral resources and perceived requirements of native northerners for developing social, political and economic self-sufficiency) would be assessed and a multi-use plan of a region could come into effect.

The consideration of what mode or combination of modes that can be developed to provide the necessary services will have to be set out, as they will likely be little or no competition involved. Socio-economic development must take into account national, provincial, regional and local development strategies in order to be effective. A co-ordinating agency should be set up to co-ordinate all federal and provincial programs to assist native people (like the Northern Development Agreement now). The co-ordinating agency should

co-ordinate all modal policies so utilization of the most effective and efficient system at the lowest cost can be obtained. An efficient transportation system will promote the positive development of socio-economic conditions.

4.11 Conclusion

In summary, the advent of various national/federal, provincial and regional policies were instituted with the purpose of developing the resources of Northern Manitoba. Initial policies concerning roads (roads to resources program) and air (region air policy) had the objective of enhancing the development of industrial communities for national purposes.

It was not until the late 1960's that Federal and Provincial Governments recognized the native North in its policies. From this point the two senior levels of government have entered into a number of agreements in order to stimulate socio-economic development of the native North. These include:

- the General Development Agreement
- the Manitoba Northlands Agreement
- the Northern Development Agreement
- and the Subsidiary Agreement on Transportation Development

In these agreements the provision of transportation facilities is but one clog in the overall machine of socio-economic development. Aside from these agreements the Pro-

vincial Government has enacted an airstrip program and a winter road program. The airstrip and winter road programs have enabled remote northern native communities to benefit, to an extent, from the socio-economic advantages that the rest of Manitoba and Canada have. There are still problems in providing what is labeled a minimum and adequate level of transportation facilities and services as upgrading on a lot of airstrips in remote northern areas is still required.

With the improvement of transportation facilities comes both positive and negative impacts, but the middle effect is where most of the problems occur. This "grey area" is where most of the uncertainty occurs as this area is perceived differently by various groups, and it all depends on which side of the issue is looked at.

Finally, it is evident that transport policies and programs have to be co-ordinated into the overall picture of regional development in order to provide maximum benefits to these communities. Transportation cannot be viewed as a panacea in solving socio-economic problems experienced by remote native communities. With the various bi-lateral agreements the Province of Manitoba in conjunction with the Federal Government are taking a step in the right direction in enhancing the quality of life in remote Northern Manitoba native communities, but it should not stop there.

Chapter V

CASE STUDY METHODOLOGY

5.1 Introduction

A case study approach involving four Northern Manitoba native communities is used in this thesis to illustrate the effect of various government transportation policies, on northern native communities over the years.

Firstly, an extensive review of the literature was undertaken to establish the historical and socio-economic background of Northern Manitoba native communities. The literature shows how the different phases of transport technology have evolved over time and the effect these changes have had on native communities. The literature review is complemented by field research in four communities selected for the study. This is done in order to receive first hand knowledge and insights on how transport linkages have effected each community.

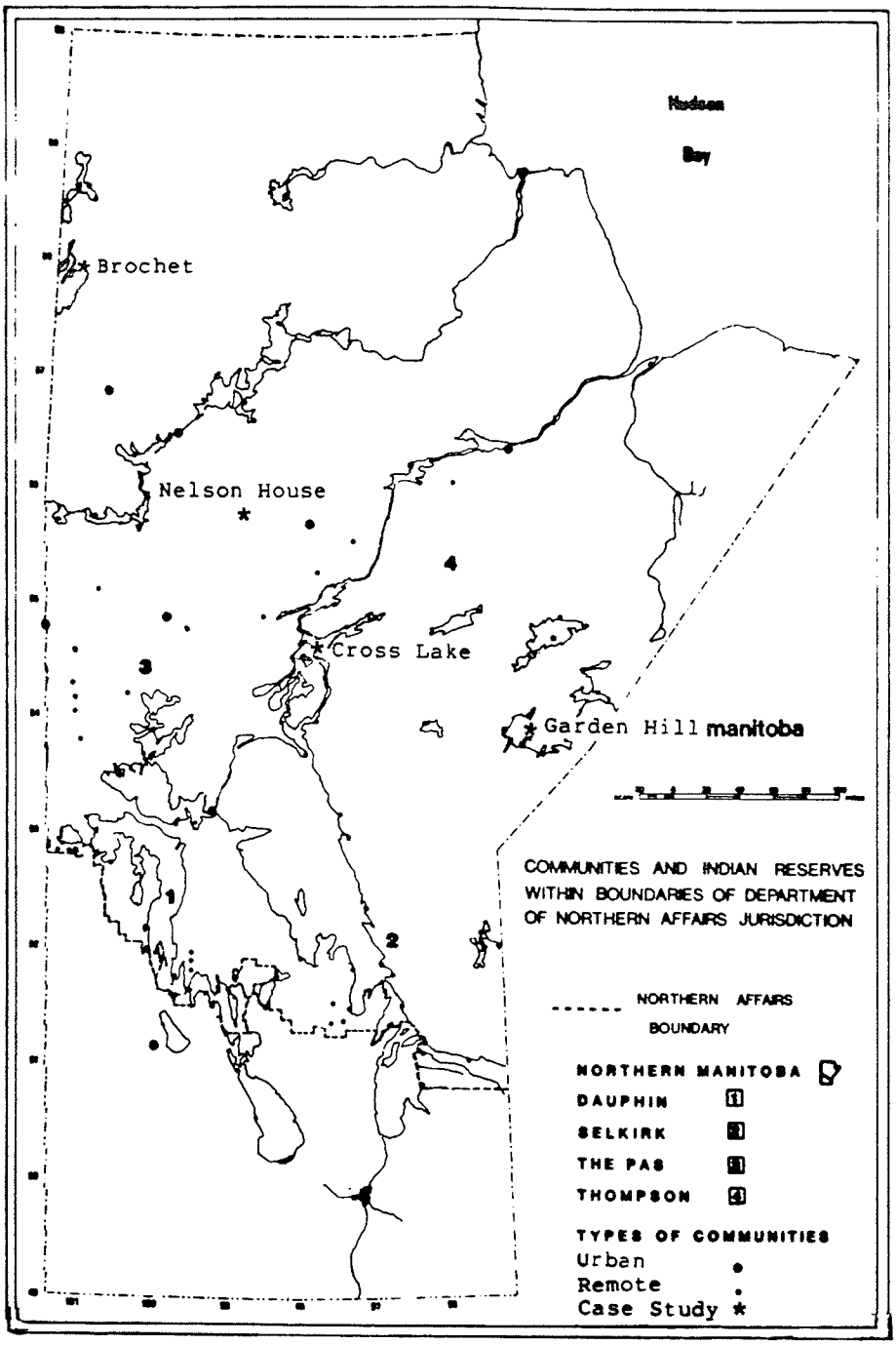
The case study methodology used in the compilation of this thesis is described in this chapter. The criteria used in the formation of the study area are discussed, followed by an explanation of the methods of analysis, along with what is intended to be done with the data obtained during the field research.

5.2 Selection Of Study Area

In studying the effects of government transportation policies on the native communities of Northern Manitoba, an analysis of all native communities in Northern Manitoba was not deemed necessary. Therefore, a sample of representative communities was chosen to depict the effects of transportation linkages on Northern Manitoba native communities.

In delineating the study area it was decided to use native communities in the Manitoba Department of Northern Affairs' jurisdiction (see Figure 13). Also included were Indian Reserves and non-status communities under the jurisdiction of Indian and Northern Affairs Canada (INAC) that are located within these boundaries. In the Manitoba Department of Northern Affairs there are 53 communities that are governed under the Northern Affairs Act. These communities are sub-divided into four regions consisting of Dauphin, The Pas, Selkirk and Thompson. This thesis concerns itself with the communities that are located in the Thompson and Selkirk (east of Lake Winnipeg only) Branches of Northern Affairs (see Table 2). Also included are the Indian Reserves and non-status communities within these two regions under the jurisdiction of INAC (the federal jurisdiction for Manitoba is different than the Province's, as it is divided into two regions: Thompson and Winnipeg). There are 44 Indian bands in the Northern Affairs boundaries, of which 37 fall within the Thompson and Selkirk Branches.

Figure 13: Manitoba Department of Northern Affairs' Boundaries



Source:
Manitoba, Department of Northern Affairs, NORTHERN AFFAIRS COMMUNITY REPORTS, 1985, (Winnipeg: Manitoba, Department of Northern Affairs, 1985), n.p.

Table 2: Communities In Thompson and Selkirk Branches

* denotes that adjacent Metis community and Indian Reserve exist

Thompson Region

* Brochet (f/p)
* Cross Lake (f/p)
* Gods Lake Narrows (f/p)
Gods River (f)
Grand Rapids (f)
* Granville Lake (f/p)
Gillam, Bird (f)
* Ilford (f/p)
Lac Brochet (f)
* Nelson House (f/p)
* Norway House (f/p)
* Oxford House (f/p)
Pikwitonei (p)
Pukatawagan (p)
Shamattawa (f)
Split Lake (f)
* South Indian Lake (f/p)
Tadoule Lake (f)
Thicket Portage (p)
Wabowden (p)
Warrens Landing (p)
York Landing (f)

Selkirk Region
(eastern side of Lake Winnipeg only)

* Berens River (f/p)
Big Black River (p)
* Bloodvein (f/p)
Island Lake (p)
Garden Hill (f)
* Little Grand Rapids (f/p)
Loon Straits (p)
Pauingassi (f)
* Poplar River (f/p)
Princess Harbour (p)
* Red Sucker Lake (f/p)
* St. Theresa Pt. (f/p)
Wasagamach (f)

f = federal jurisdiction
p = provincial jurisdiction

The Pas and Dauphin Branches of the Manitoba Department of Northern Affairs were excluded as all communities, when examined, were found to have all-weather road access. With the exception of communities in The Pas region, which have since received all-weather roads in the 1970's, all communities have had all-weather roads for a substantial period of time. This is related to the fact that the western portion of the province received rail and road service with the initial development of transport services into Northern Manitoba in the early 20th century. Communities in the Selkirk Branch falling mainly on the west side of Lake Winnipeg (also Bissett, Manigotogan and Seymourville) were excluded as they have already obtained all-weather road access as well. Federal Indian Reserve communities of Hollow Water and Little Black River were excluded for the same reason.

In narrowing the study area down to basically Northern and North-Eastern Manitoba, this thesis concentrates on primarily the native communities that are remote. These areas have a majority of the native communities that lack all-weather road access.[142] A matrix was devised listing the characteristics of the communities so four communities could be selected. Most, if not all, native communities tend to rely on the traditional economic opportunities of commercial fishing, trapping, hunting and logging. From the refined

[142] In this area, communities with federal and provincial jurisdictions were looked at as one when they formed adjacent communities (ie. Cross Lake Metis community and Cross Lake Indian Reserve) as their external transportation needs are the same.

jurisdiction of Northern Affair's boundaries, all communities were classified according to a hierarchy of systems in order to select four non-mineral based northern native communities that would be representative, to an extent, of all native communities. This was done for ease of analyzing the transportation systems.

Six categories were initially established. The regional centers of Thompson, Flin Flon, The Pas, Lynn Lake, Churchill, Leaf Rapids and Snow Lake constituted the first category. The second category included native communities with all-weather road access. These communities included Wabowden, Gillam, Grand Rapids, Split Lake and Nelson House. The third category included native communities with railroad access, of which Ilford, Pukatawagan, Pikwitonei and Thicket Portage qualified. The fourth category was characterized by native communities with all-weather road access linked by a ferry or a short winter road. These included Norway House, Cross Lake, South Indian Lake, Bloodvein, York Landing and Princess Harbour. The fifth category listed native communities that are remote with regular winter road access. Included in this group are Oxford House, Gods Lake Narrows, Gods River, Berens River, Poplar River, Little Grand Rapids, Pauingassi, St. Theresa Pt., Island Lake, Garden Hill, Wasagamach, Red Sucker Lake and Loon Straits. The final category consisted of native communities that are classified as remote with irregular winter roads or no winter road access

at all. These communities included Shamattawa, Brochet, Lac Brochet, Tadoule Lake, Granville Lake, Warrens Landing and Big Black River (see Table 3).

The first category was excluded as the communities consisted of resource based centers and did not meet the criteria of non-resource based native communities. The third grouping of communities was also eliminated as the four railroad communities have had a form of low cost all-weather surface access since the early 20th century. As well, these communities will benefit from the rail-bus technology presently being developed. After the exclusion of these two categories, the study area was reduced to four categories. From the remaining four categories, one community was selected from each group to be the representative case study community (see Table 3). The case study communities exhibited the broadest possible number of common features with other communities in their respective groups. Hence, generalizations offered would be representative to an extent.

These four categories were then reorganized into two umbrella groups: one group consisted of communities that had all-weather road access and the other group that was remote. The two communities that fall under the remote grouping, with differing degrees, that were selected were Garden Hill/Island Lake and Brochet. Garden Hill/Island Lake was chosen because it typifies the remote communities with regular winter road service in the study area. Since

Table 3: Hierarchy Of Communities

Thompson-Selkirk Branches Of Northern Affairs

* - denotes that adjacent Metis community and Indian Reserve exist
- case study communities noted by capital letters

1) Regional Centers	2) All-Weather Road Access
Thompson	Wabowden
Flin Flon	* Grand Rapids
The Pas	* NELSON HOUSE
Lynn Lake	Split Lake
Churchill	* Easterville
Gillam	* Moose Lake
Leaf Rapids	
Snow Lake	

3) Railroad Access	4) All-Weather Road Access With Ferry/Winter Road Link
* Ilford	* Norway House
Pukatawagan	* CROSS LAKE
Pikwitonei	South Indian Lake
Thicket Portage	York Landing
	* Bloodvein
	Princess Harbour

5) Remote With Regular Winter Road	6) Remote With Irregular Or No Winter Road
* Oxford House	Shamattawa
* Gods Lake Narrows	* BROCHET
Gods River	Lac Brochet
* Berens River	Tadoule Lake
* Poplar River	* Granville Lake
* Little Grand Rapids	Warrens Landing
Pauingassi	Big Black River
* St. Theresa Pt.	
* ISLAND LAKE/GARDEN HILL	
Wasagamach	
* Red Sucker Lake	
Loon Straits	

it is the largest community in this category, it was assumed that it would portray similar characteristics to Wasagamach, St. Theresa Pt., Red Sucker Lake, Gods Lake Narrows, Gods River, Oxford House, Little Grand Rapids and Pauingassi. Berens River, Poplar River and Loon Straits were not chosen because the characteristics that defined them revealed that they were not as remote as the other communities in this category, as they receive barge service in the summer on Lake Winnipeg. Brochet was chosen from the more isolated grouping characterized by no winter roads or irregular winter roads. This group of communities rely almost exclusively on the more costly air mode. Brochet was selected to typify the other communities of Shamattawa, Lac Brochet, Tadoule Lake and to a lesser extent Granville Lake. Warrens Landing and Big Black River were not considered as they are serviced by Norway House and have summer barge service. Another factor that led to the selection of Brochet is that the community is comprised of an adjacent Metis community and Indian Reserve making it more representative of Northern Manitoba native communities in general.

From the two isolated communities in the sample, an examination of socio-economic development was undertaken to see how the communities were affected by the lack of transportation linkages. How government transportation policies influenced socio-economic development of the communities in question is also looked at (with one mode or seasonal modes).

The other part of the sample consisted of two communities that had received recent all-weather road linkages (in the last 15 years). These two native communities were used to compare and contrast socio-economic development of the isolated Northern Manitoba native communities. The differences, if any, are revealed between the two broad categories. This category, like the remote group, lists communities that have all-weather road access with differing degrees. Cross Lake was one community chosen to represent the communities in the all-weather road with ferry or short winter road access group, as it was anticipated to have the greatest impact. Norway House was excluded, even though its characteristics are very similar to Cross Lake, due to the fact that its historical setting constitutes it as a special case. South Indian Lake and York Landing portrayed characteristics similar to Cross Lake. Bloodvein and Princess Harbour were judged not to warrant consideration as they receive barge service in the summer. The final community selected for the sample was Nelson House. Wabowden, Gillam and Grand Rapids were excluded due to the fact that they are service centers and do not typify traditional native communities. Nelson House was selected as it was surmised that socio-economic patterns would have been established since it received all-weather road access in the mid 1970's. It was assumed that Nelson House would represent other native communities like Split Lake, Moose Lake and Easterville (the

latter two are under the jurisdiction of The Pas region). It was determined that Nelson House was far enough removed from a regional center (Thompson), being 60 miles away, to provide the needed analysis on its socio-economic development.

By classifying Northern Manitoba native communities in this manner, an evaluation of the nature of advantages and disadvantages accruing from transportation linkages would be developed. From the experiences of each community (chapter 6) scenarios were constructed as a means to evaluate proposed sets of policies or actions (chapter 7).

By conducting the research in this manner, it was possible to document the advantages and disadvantages created from the advent of transportation networks, or lack thereof. From the findings in the four communities, alternative actions are proposed and evaluated. Alternatives are offered in order to select the best solution concerning transportation requirements of Northern Manitoba native communities.

5.3 Methods Of Analysis

The methods of analysis consisted primarily of interviews with the governing officials in each respective community. The interviews were not restricted to the governing native officials, and included non-native officials as well.[143]

[143] In each community 12-15 interviews were conducted. Various officials contacted in each community included: the Chief, Band Councillors, the Mayor, Community Council-

This was done in order to receive a wide variety of perceptions on how the transportation network of a particular community has affected socio-economic development, and to minimize any biases that might have arisen out of the interviews. By carrying out the research in this manner, effects of the various government transportation policies have had on remote native communities in general were able to be ascertained. In viewing these selected communities the effects of a transportation mode on the economic health and social well-being of a certain type of community were made known.

The interviews with the various officials in communities with all-weather road access followed a set of general questions structured in a questionnaire (see Appendix D). The questions were aimed at asking what the positive and negative aspects of an all-weather road are to the community, as well as what the effects were on lifestyles. The officials were asked if the benefits on an all-weather road outweigh the negative aspects associated with it. It also asked whether or not an all-weather road was seen as the answer in solving all socio-economic problems associated with the community. An attempt was made to find out whether or not there was any community input in the planning of the all-weather road link. Furthermore, it was asked whether or

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lors, the RCMP, Band Constables, The Bay Manager, Post Master, Health Nurse, Teachers, Principal, Federal Outreach worker, Independent Businessman, Minister and Airport Manager.

not other types of social infrastructure were deemed more important than physical infrastructure. Finally, the interviews asked what type of government policy they would like to see implemented concerning transportation to remote native communities and what remote communities can do prior to receiving all-weather road access by drawing on past experiences of others.

An additional set of questions were posed to officials of remote communities, along with the general questions asked in all communities, albeit in a modified form appropriate to the particular community. These additional questions aimed at finding out whether or not the current transportation system was adequate. If not, then what type of action the government should be expected to supply to alleviate the situation. It was asked whether or not an isolated community can and should expect more than one mode of transport, which usually is air. A final question posed, asked the officials if they believed that the community had stagnated due to the lack of an all-weather surface link.

This line of questioning attempted to reveal the perceptions and attitudes of the governing officials in the four categories of native communities. By this, community needs and wants would be revealed so that particular actions could be initiated in order for each community to reach their goal concerning transportation. The data from each community was sorted and collated to see what common denominator arose.

This data was compared to the information obtained during the literature search to see if it was consistent, or whether it deviated from the past transportation material concerning native communities.

5.4 Conclusion

In closing, the contents of this chapter focus on the criteria used in selecting the sample of Northern Manitoba native communities used in this thesis. Since it was uneconomical -- financial and time wise -- to include all northern native communities, a case study approach was instituted. The communities were grouped into various categories in order to be representative of all Northern Manitoba native communities. From each of the four categories a case study community was selected with the intention that generalizations would be applicable to all communities in that category. Interviews were then conducted with the various governing officials in each of the case study communities in the hope that needs and wants of each community concerning transportation linkages would be made known. From this, the data could be used towards developing recommendations and actions for future transportation policies concerning Manitoba native communities.

The limitations arising from this method are that generalizations made from the case study communities may not fully reflect remote Manitoba native communities. While this is realized, important lessons can still be learned.

Chapter VI

CASE STUDIES: PRESENT SITUATION

6.1 Introduction

This chapter brings into light the present transportation systems affecting each of the four native communities under study. Profiles for each community precede the discussion of the community transportation system's effect on socio-economic development.

The communities are examined systematically from the least isolated to the most isolated. Therefore, a discussion of Nelson House is followed by Cross Lake, Garden Hill, and finally Brochet. This establishes an order of analysis of the sample communities whereby the results of the least isolated communities are used as a learning experience for more isolated communities.

Once the present situation of the sample communities is analyzed, the data is compared to information obtained during the literature review to see if native needs are consistent, or whether they have changed over time.

6.2 Community Profiles

6.2.1 Nelson House

Nelson House[144] comprises two closely related and adjacent communities consisting of a Metis community and an Indian Reserve. The reserve community is under the jurisdiction of INAC, while the Metis community is under the jurisdiction of Manitoba's Department of Northern Affairs.

The communities of Nelson House are located 60 miles west of Thompson on the shores of Footprint Lake. They are 410 air miles north of Winnipeg.

In 1820, the HBC established a temporary post called Nelson River. Another temporary post was established in 1822 at Three Point Lake in the region. It was not until 1833 that a permanent post was formed at the present site of Nelson House. The post was originally known as Fort Seaborn, then Nelson River and was not known as Nelson House until 1866.

The area around the Nelson House settlement is very hilly and the population is scattered along the north shore of Footprint Lake (see Figure 14). Internal roads run the length of the settlement. The townsite of Nelson House is quite compact and is not as spread out as other native communities are (ie. Cross Lake). Hence, the internal road system is not as dysfunctional as it is in some communities.

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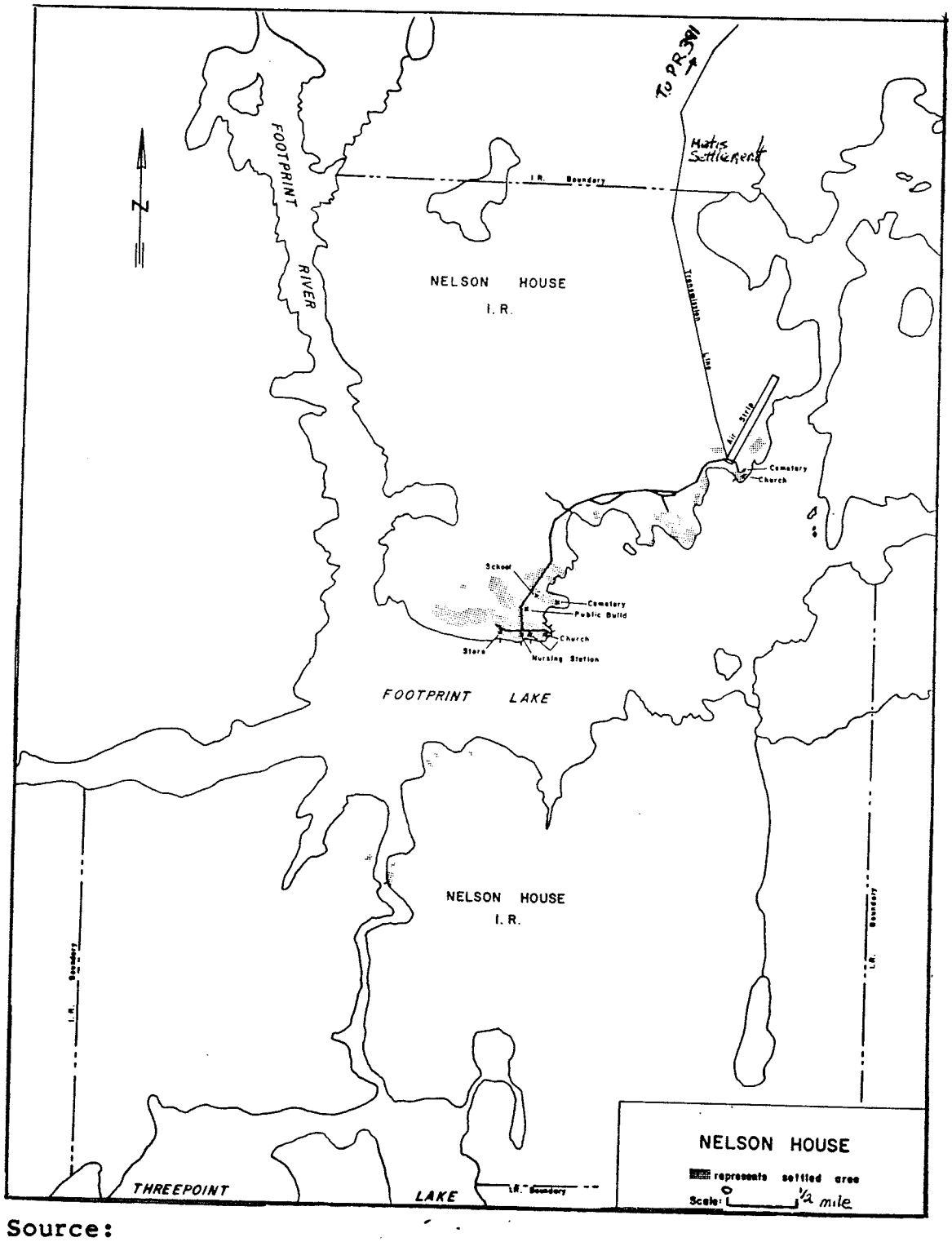
[144] Information for this section was taken from Manitoba, Department of Northern Affairs, NORTHERN AFFAIRS COMMUNITY REPORTS, 1985 and Indian and Northern Affairs Canada, INDIAN RESERVE COMMUNITY PROFILES, 1984.

There are hardly any ice bridges in the community, indicating that the roadways are utilized to the fullest. This also indicates that the summer and winter internal travel patterns would not differ that much. The Metis community is situated a few miles from the reserve development and is laid out in a subdivision pattern while parts of the reserve have roads that follow the placing of housing instead of the other way around.

The population of Nelson House includes 108 in the Metis Community (1985 Northern Affairs data) and 1,528 Treaty Indian Band members (1983 INAC data) for a total of 1,636. The population of Nelson House has mainly risen through natural increase. There are an additional 845 (1985 Northern Affairs data) people living at South Indian Lake of which 656 (1983 INAC data) are members of the Nelson House Band. These members moved from Nelson House to South Indian Lake in 1920 to pursue commercial fishing. As a result strong linkages exist between the two communities.

The two communities are dependent on each other for commercial services and economic development. However, each community in Nelson House has its own system of local government and budget. The Metis community has been represented since July, 30, 1974 by a Chairman and Local Advisory Committee under Manitoba's Northern Affairs Act. They are also a member of the Northern Association of Community Councils (NACC). The reserve community is governed by a Chief

Figure 14: Settlement of Nelson House



Source:
Manitoba, Department of Northern Affairs, MANITOBA NORTH MAPS, (Winnipeg: Manitoba, Department of Northern Affairs, n.d.), p. 214.

and Councillors elected every two years and the Band is a member of the Manitoba Indian Brotherhood (MIB). The two councils work together and get along quite well. This may be due in part to the small Metis population. A school bus service is provided, but the two councils do not really consult each other on internal transportation because they are unconnected.

Economic activity at Nelson House is based on commercial fishing, trapping, hunting and logging. Resource use has been effected by the Manitoba Hydro - Churchill River Diversion scheme. Commercial enterprises include a logging and milling operation. A high level of unemployment, underemployment and welfare are prevalent in the community.

Nelson House is served by PR 391, an all-weather road constructed in 1974, which connects the community to Thompson and Lynn Lake (refer to Figure 4). Area natives were employed to clear the right-of-way for the road. There are various taxi services available, as well as daily bus services provided by Grey Goose Bus Lines. Air service is only available by charter float/ski plane, since the airstrip was abandoned in 1983 due to better service and reliability of the all-weather road. There is no overnight accommodation in the community. Internal water transport is important in the community but not to the extent of other communities (ie. Cross Lake and Garden Hill). Docking facilities for boats and planes exist.

Nelson House is served by land line hydro power with 244 connections. Manitoba Telephone System (MTS) provided dial service in 1974 with 189 hook-ups. There is also radio, T.V. and daily postal service in the community. Water is obtained from Footprint Lake, treated and delivered by three water trucks. The Nursing Station, new federally operated school (kindergarten to grade 9), teacherage, Band Office, and HBC have a piped system. The Metis community has one standpipe. There is no public sewage system as most residents use pit privies with the exception of the institutions. There is one landfill site with weekly pickup service. The community has fire, police (Thompson RCMP detachment and Band Constable), Nursing Station, ambulance service and a school. Retail services consist of the HBC store and S & R Food Store. A lack of capital and management resources continue to be a major obstacle in expanding this sector. Recreation facilities include the school gym and playground, outdoor rink, baseball diamond, and park/picnic/beach area. There are approximately 218 housing units in the communities.

6.2.2 Cross Lake

Cross Lake[145] contains two closely related and adjacent communities, consisting of an Indian Reserve and a Metis community. The reserve community is under the jurisdiction of INAC, while the Metis community is under the jurisdiction

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[145] IBID.

of Manitoba's Department of Northern Affairs.

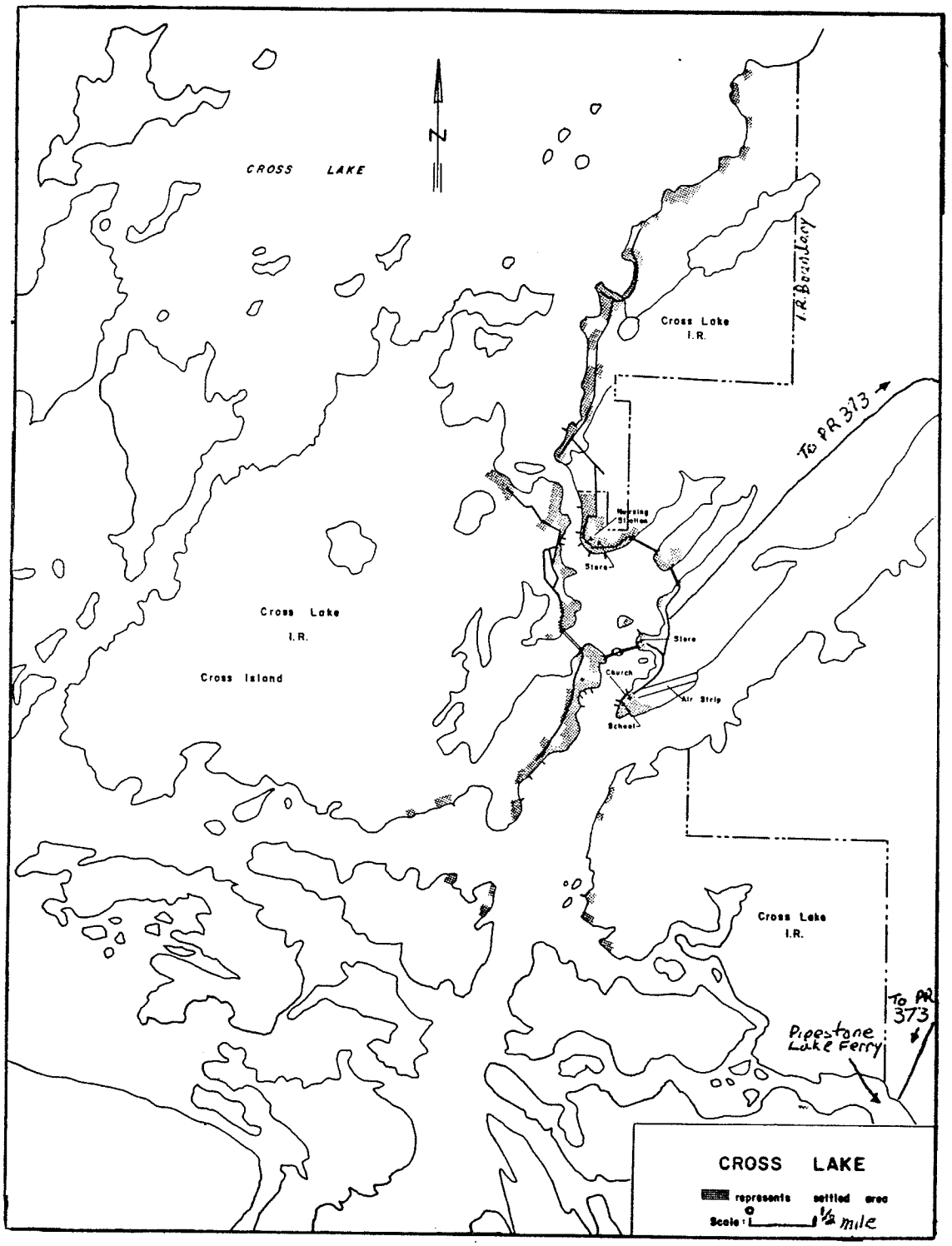
Cross Lake is located near the center of Manitoba, 325 air miles north of Winnipeg. Cross Lake is 80 air miles south of Thompson, 45 air miles north of Norway House and 135 air miles west of Island Lake.

The townsite is located on the historic Lake Winnipeg - York Factory trade route. The Cross Lake Band was formed by the migration of Indians from the surrounding areas. The HBC established a post at Cross Lake in the early 1800's.

The townsite is located along the shores of the Nelson River just before it flows into Cross Lake. The population is scattered along both east and west shores (see Figure 15). The external gravel road runs along the east bank of the Nelson River with internal roads intertwined throughout the community. The internal roadway system seems very inefficient as a lot of overlapping occurs. This is likely due to the placement of housing in the community which refers to historical patterns. There is not a clear boundary between the Metis and reserve communities as exists in Nelson House. However, there is some distinction with the Metis community, concentrated near the HBC store, being laid out in a more conventional grid pattern while the reserve is randomly placed.

The population of Cross Lake is 3,254. This figure comprises 2,673 Treaty Indians (1986 INAC data) and 581 Metis (1985 Northern Affairs data). The population of Cross Lake,

Figure 15: Settlement of Cross Lake



Source:

Manitoba, Department of Northern Affairs, MANITOBA NORTH MAPS, (Winnipeg: Manitoba, Department of Northern Affairs, n.d.), p. 180.

like most native communities, increases due to natural birth rates.

The two communities are dependent on each other for commercial services and economic development. However, each community has its own system of local government and budget. The Cross Lake Metis community has been governed by elected Mayor and Council for two year terms since September 1970, under the Northern Affairs Act and is a member of NACC. The Cross Lake Indian Reserve is governed by a Chief and Councillors for two year terms and the Band is a member of MIB. There does not seem to be that much co-ordination and co-operation between the two councils as both groups operate in a separate fashion. For example, the reserve is completing the construction of a new school (ready for September 1987) that would facilitate students up to grade 12. Metis students are not able to attend this school and must go out of the community to finish high school at the present time. Negotiations though, are currently underway to resolve this. There is also little co-ordination between internal roadway systems as both communities stick to themselves.

Present economic activity includes commercial fishing, trapping, logging, hydro developments and the local service sector. Like most native communities, Cross Lake experiences a high level of unemployment, underemployment and welfare due to a lack of economic activities available to them.

The communities of Cross Lake receive all-weather road access via PR 373 with a short ferry/ice bridge crossing at Pipestone Lake, located south-east of the community (refer to Figure 4). This transportation link was completed in 1977. There are taxi services available, as well as connecting Grey Goose bus services. There is a 3,000 foot gravel airstrip and terminal located in the south-east portion of the community, but since the advent of the all-weather road the bulk of its use is for medical trips. Gravel and dirt roads stretch along east and west banks of the Nelson River. A foot bridge was constructed by DIAND at a cost of $120,000[146] connecting east and west shores at the southern end of the community, but is is rarely used as it seems to have been placed in an inappropriate location. Cross Lake used to receive external water transport via Whiskey Jack Portage until the all-weather road was built. By viewing the extensive use of the lake and ice bridges within the community in the winter, leads one to believe that a more efficient method of personal travel can be achieved. The inefficient and haphazard layout of the road system suggest that water transportation is very important and small boats would be an extremely efficient method of personal travel in the summer months for intra-community travel. There are docking facilities for boats and float planes in the community as well. Overnight accommodation is

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[146] Manitoba, Department of Northern Affairs, COMMUNITY PROFILES: CROSS LAKE, Vol. T-2, 1975.

available.

Cross Lake is served by land line hydro power with 495 hook-ups in the two communities. There is a land line telephone system consisting of 648 dial phones that was installed in 1974. Cross Lake Band operates a local radio station and receives signals from Thompson. There is T.V. and postal service 5 days a week. Water is drawn from Cross Lake. Piped water and sewer services are in the process of being installed, firstly to the Metis community. The reserve mostly uses pit privies. The cost of providing these services is enormous due to the layout of the community. The institutions utilize septic fields in the community. There is a three acre sanitary landfill site serving both commercial and residential needs. The community has fire, police (a local RCMP detachment and Band Constables), ambulance service, a Nursing Station and two schools operated by Federal (k-12) and Provincial (k-9) Governments. Retail services include Charlie's Inn, the HBC store, a private store and a restaurant. Out of the four communities studied, Cross Lake has the best service sector. Recreation facilities include a new indoor arena (seating capacity of 1,000), outdoor rink, baseball diamond, community hall, local park, playground, beach area and school facilities. There are approximately 524 housing units in the two communities.

6.2.3 Garden Hill/Island Lake

The two closely related and adjoining communities of Garden Hill and Island Lake[147] consist of an Indian Reserve and a Metis community respectively. The reserve community of Garden Hill is under the jurisdiction of INAC, while Island Lake is under the jurisdiction of Manitoba's Department of Northern Affairs.

Garden Hill is located on the north shore of Island Lake, while the Metis community of Island Lake is located on Stevenson Island adjacent to Garden Hill. Garden Hill and Island Lake are located 205 winter road miles north of Hole River, 63 air miles south of Gods Lake Narrows, 162 air miles south-east of Thompson and 257 air miles north-east of Winnipeg. The area around Island Lake is dotted with lakes and river systems with bog throughout and is heavily wooded. Island Lake is approximately 70 miles long and 50 miles wide and has approximately 3,400 islands.

Island Lake was established when the HBC built a post in the area in 1818. By 1821, the post was known as Lac des Isles. The scarcity of furs forced this post to be moved to Gods Lake in 1825, but it returned in 1833. In the 1920's, Island Lake was predominantly Methodist, until Roman Catholic missionaries arrived. This resulted in a conflict between the two religious groups which split the community.

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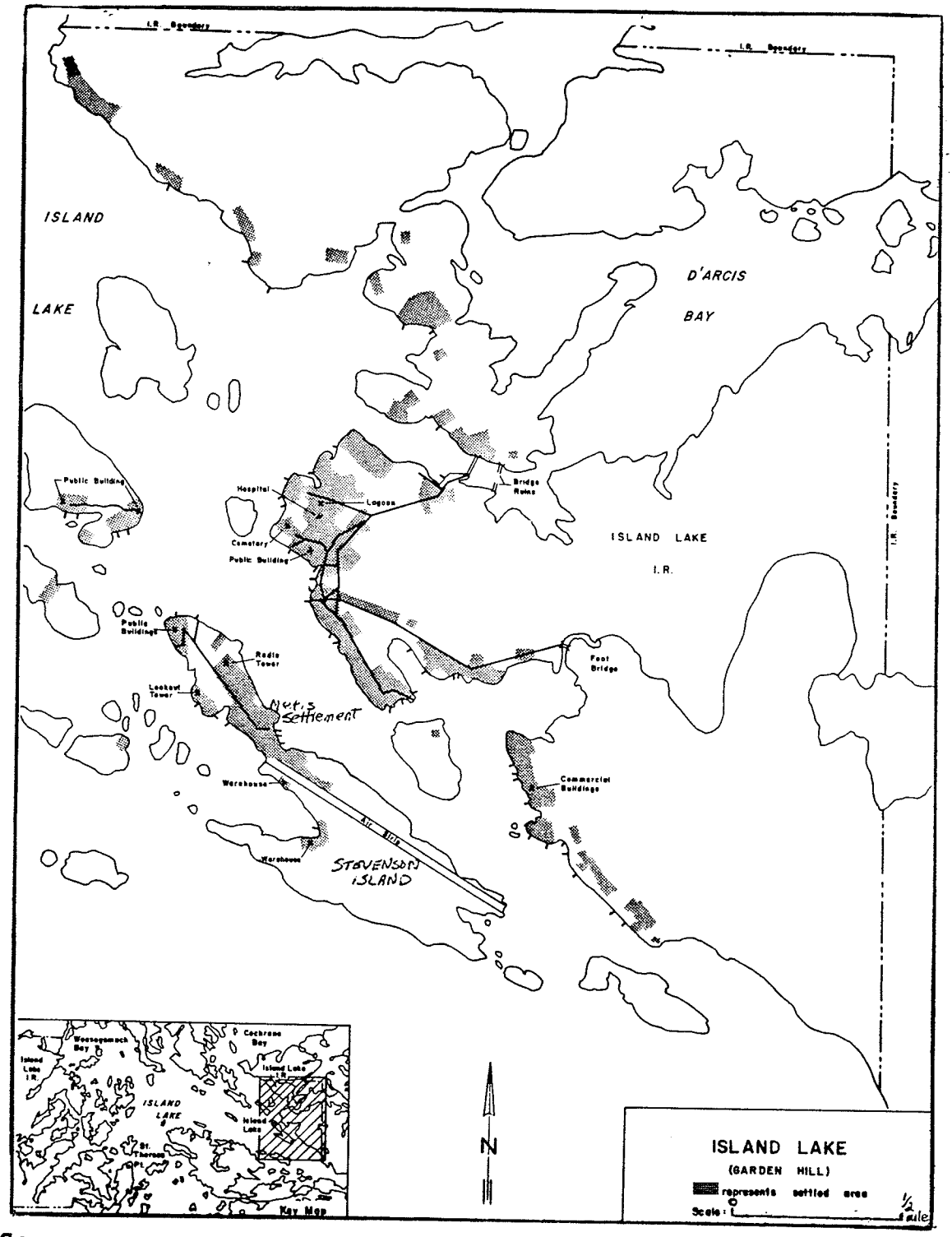
[147] Information for this section was taken from Manitoba, Department of Northern Affairs, NORTHERN AFFAIRS COMMUNITY REPORTS, 1985 and Indian and Northern Affairs Canada, INDIAN RESERVE COMMUNITY PROFILES, 1984.

The Protestants remained at Garden Hill and the Catholics established St. Theresa Point, formally called Maria Portage, in 1927 due to these religious differences. A Protestant-Methodist group also split from the community and settled at Red Sucker Lake. Another community, Wasagamach, located six miles from St. Theresa Pt. where a Roman Catholic church was erected in 1927 was established as an outgrowth of St. Theresa Pt.

The Island Lake reserve is jointly owned by the four bands -- Garden Hill, St. Theresa Pt., Wasagamach and Red Sucker Lake -- which originally formed the single Island Lake Band until 1969. Then separate bands were formed in 1970.

The Garden Hill townsite located on the shore of the mainland is about four miles deep and three miles long. Part of the settlement, including the HBC store, airstrip, the RCMP detachment and the Natural Resources building are located on Stevenson Island. The cemetery, lagoon, school, Post Office and Nursing Station are located on the reserve (see Figure 16). While no road connects the reserve to Stevenson Island, internal roads stretch throughout the communities. The internal roadway system on the reserve, while quite organized in the central part where the school, community hall and Band Office are located, is still inefficient due to historical settlement patterns. The settlement on Stevenson Island is laid out in a strip development due mainly to the restrictions imposed by the land.

Figure 16: Settlement of Garden Hill/Island Lake



Source:

Manitoba, Department of Northern Affairs, MANITOBA NORTH MAPS, (Winnipeg: Manitoba, Department of Northern Affairs, n.d.), p. 191.

The population of Garden Hill and Island Lake totals 2,146. This breaks down to 2,060 Treaty Indians on Garden Hill reserve (1986 INAC data) and 86 in the Island Lake Metis community (1985 Northern Affairs data). The main cause of population change in these communities is due to natural increase.

These two communities are dependent on each other for economic and commercial services. Like the other communities under study, Garden Hill and Island Lake are governed by separate levels of government with separate budgets. The Island Lake Metis community has been represented by an elected Chairman and Local Advisory Committee under the Northern Affairs Act since June 28, 1976 for two year terms. The Metis community is also a member of NACC. The Garden Hill reserve is governed by a Chief and Councillors, elected every two years and the Band is a member of the MIB. With the limited amount of Metis in the community one would think that there would not be any problems in co-operation and could be compared the the situation existing in Nelson House.

Consistent with so many other native communities, Garden Hill's economic opportunities are comprised of the traditional activities of commercial fishing, hunting and trapping. The Island Lake area is suitable to extensive recreational and forestry activities. But only recreation (fly-in fishing and hunting) has been utilized to an extent. The

forest reserves are marketable, but no available transportation has been afforded to exploit this resource. Commercial fishing is the main activity for most residents, while trapping returns are a low source of income. Garden Hill is large enough to support a larger service sector than they have at present, but the lack of capital, high unemployment rate and welfare preclude the expansion of this sector. The high unemployment rate and high cost of living are major concerns in the community.

The communities of Garden Hill and Island Lake are not served by an all-weather road system. However, Garden Hill and Island Lake are served yearly by winter roads that connect Red Sucker Lake, St. Theresa Pt., Wasagamach and Garden Hill to Hole River, 205 miles to the south. Internal gravel roads exist in Garden Hill and Island Lake, but there is no causeway or bridge joining the two communities. The airstrip has a 4,000 foot by 100 foot gravel runway and terminal building. These communities are served daily by scheduled air service from Thompson and Winnipeg, with charter operations available as well. Water transport, while restricted to the Island Lake area, is very important. There is extensive use of the lake and ice roads in the winter by ski-doo for intra and inter-community travel as St. Theresa and Wasagamach are fairly close. Boat travel would take on the same significance in the summer as the HBC store is located on Stevenson Island. A causeway would facilitate

more efficient movement though, especially during freeze-up and break-up periods. This period is a problem for police and medical personnel, not to mention the community, as a helicopter has to be chartered to get from the reserve to Stevenson Island. This can be costly ($50 per trip) and time consuming. Docking facilities for boat and float plane are utilized. There is overnight accommodations in the community in the form of a lodge.

The communities of Garden Hill and Island Lake are served by a diesel electric power plant supplied by Manitoba Hydro. Residents are limited to 15 amp service with commercial buildings limited to 100 amp service. The standard residential service in the rest of the province is 100 amp connection.[148] MTS has completed a major upgrading of the phone service with a microwave system and there are 1,069 dial phones in the communities of Garden Hill (437), St. Theresa Pt. (428) and Wasagamach (204). Radio is received from Thompson and Winnipeg. There is T.V. and postal service four days a week to the communities. The communities obtain water from Island Lake and it is pumped and distributed by a standpipe system. Institutions obtain water through a piped system. Outlying houses obtain water directly from the lake. Most residences utilize pit privies, while institu-

[148] There is a proposed land line (Kelsey Line) to be constructed and completed by 1993. This transmission line would run south from Gillam and connect seven remote communities into the provincial grid system. These communities are Oxford House, Gods Lake Narrows, Gods River, St. Theresa Pt., Wasagamach, Garden Hill and Red Sucker Lake.

tions and homes hooked-up to the water line have disposal to a lagoon. To provide these services to everyone would be extremely costly due to the sprawling nature of the community. Garbage disposal to the garbage pits is an individuals responsibility. The communities have fire, police (local RCMP detachment and Band Constables), ambulance service, a Nursing Station and a federally operated school (k-10). Retail services include the HBC store, Big Hook Lodge and a restaurant. The lack of capital, apparent in other native communities, is also evident in Garden Hill and Island Lake. Recreation facilities available are the school gym and playing fields, curling rink, outdoor skating rink and a community hall. There are approximately 467 housing units in the two communities.

6.2.4 Brochet

There are two closely related and adjacent communities that are known as Brochet,[149] one is an Indian Reserve (Barren Lands) while the other is a Metis community. The reserve community is under the jurisdiction of INAC, while the Metis community is under the jurisdiction of Manitoba's Department of Northern Affairs.

The communities of Brochet are located approximately 15 miles east of the Manitoba-Saskatchewan border. The communities are 76 air miles north-west of Lynn Lake, 178 air

[149] Information for this section was taken from Manitoba, Department of Northern Affairs, NORTHERN AFFAIRS COMMUNITY REPORTS, 1985 and Indian and Northern Affairs Canada, INDIAN RESERVE COMMUNITY PROFILES, 1984.

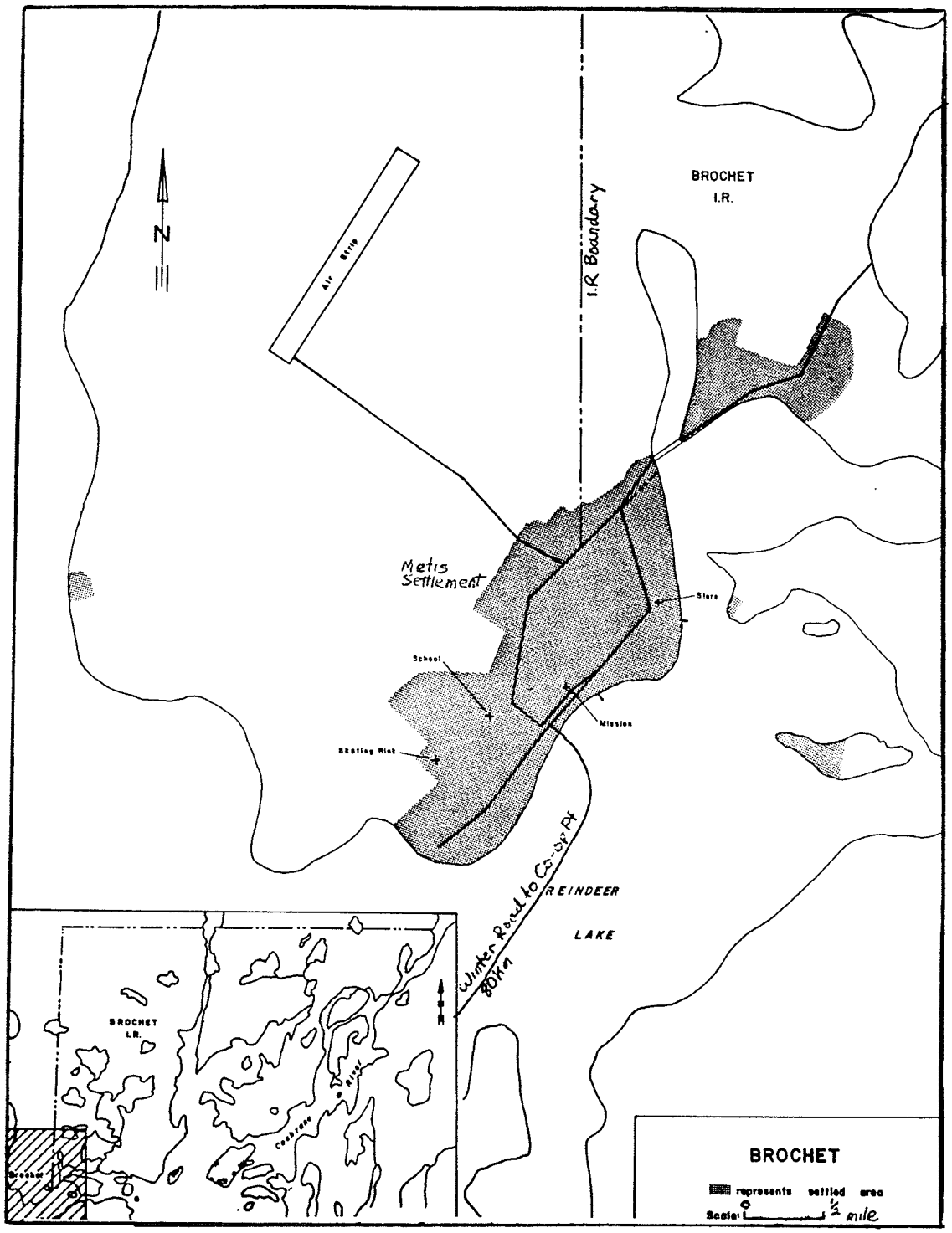
miles north-west of Thompson and 506 air miles north-west of Winnipeg.

Brochet was originally settled in the winter of 1808-1809. In 1861, a Roman Catholic mission was founded along with a HBC post, which still stand today. In 1970, about one half of the community of Brochet (mostly from the Barren Lands Reserve) separated and moved 80 miles north to form Lac Brochet. This migration consisted of mainly Chipewyan Indians. The factionalism created between the Cree and Chipewyan peoples led to this separation. Brochet now is comprised of mainly Cree speaking peoples with a few Chipewyans.

The Brochet townsite is located along the north shore of Reindeer Lake, 10 km west of the mouth of the Cochrane River, with the Indian Reserve located across a small bay accessed by a causeway (see Figure 17). There are approximately 3.2 km of internal roads, including a 1.6 km access road to the airstrip. The distinction between Metis and reserve communities is evident due to the separation by water. Both communities are fairly compact and are laid out in a rational grid pattern. The reserve community, unlike most reserve communities, is functionally organized.

The population of Brochet consists of 315 in the Metis community (1985 Northern Affairs data) and 377 in the Barren Lands Reserve (1986 INAC data) for a total of 692 residents. Birth rates are the main component of the population increase in Brochet, like so many other native communities.

Figure 17: Settlement of Brochet



Source:
Manitoba, Department of Northern Affairs, MANITOBA NORTH MAPS, (Winnipeg: Manitoba, Department of Northern Affairs, n.d.), p. 170.

The two communities are dependent on each other for economic development and commercial services. Yet, each community has its own system of local government and budget. The Metis community has been governed by elected Mayor and Council under the Northern Affairs Act since May, 1972. The elected officials govern for two year terms and the community is a member of NACC. The Barren Lands Indian Band is governed by elected Chief and Councillors, also with two year terms and the Band is a member of MIB. Each community more or less sticks to itself as there is not that much co-ordination of activities. Internal roadways are maintained only in their own jurisdiction. No one keeps up the causeway as jurisdiction is unclear. Co-ordination exists between the two communities with school bus and garbage pick-up services.

Economic activity in these communities is limited and is based on commercial fishing, hunting and trapping. A major concern for the area, like most remote native communities, is the high cost of living resulting from mainly transportation costs and the high unemployment rate. Welfare is also a major source of income. Tourism is severely limited by distance although the Band is considering opening up a lodge.

There are no all-weather roads connecting Brochet to the provincial system. Access is mainly by air with a 3,000 foot by 100 foot airstrip and terminal facilities. There is

scheduled air service as well as charter services from Thompson, Lynn Lake and La Ronge (Saskatchewan). A private winter road is constructed yearly from Co-op Pt. (refer to Figure 4), but the operator only has it open for a couple of weeks in order to get the contracted material through, then it is closed. This winter road is not open for public use. Water transport is important to the community as Reindeer Lake links up with the provincial road system at Co-op Pt. on the southern end of the lake. Although there is this link, no barge service has been operated since the mid 1970's. Father Darveau, the Roman Catholic priest since 1946, had organized a barge service from 1971-1974 to haul bulk fuel. Northern Affairs bought this operation but never completed a year's operation. A private entrepreneur is proposing a barge/truck operation for bulk fuel and dry goods, and is awaiting word for funding from the Special ARDA program. A barge operation would reduce costs significantly. He would have to assure Manitoba Hydro that he could provide this service and then obtain the contracts. His biggest opponents would be the contractor of the private winter road and the only airline, Calm Air. A feasibility study was conducted for him by P.M. Associates in 1985 on a barge operation. Internal water transport only has an advantage for the reserve as they are separated from the HBC store, school, Nursing Station, airstrip and other institutions which are located on provincial crown land. The

internal transportation system is not that important in the winter as ski-doos do not confine themselves to the road layout. The internal roadway in the summer is utilized more, but upgrading is needed. The best roadway is the one leading to the airstrip. The causeway joining the reserve to the Metis community is marginal to say the least, being barely passable in the summer. There are docking facilities for boats and float planes as well. Overnight accommodation can be arranged with the Roman Catholic mission.

Brochet is serviced by a diesel generating plant provided by Manitoba Hydro with 81 residential connections limited to 15 amp service, and 100 amps for commercial buildings. Communications service is provided by satellite -- 7 toll station pay telephones. This service is grossly inadequate for the community. However, MTS plans to upgrade this to private dial service by 1988. Radio and T.V. is limited to what the satellite dish can receive. Postal service is available three times per week. The communities obtain water from Reindeer Lake which is distributed through five standpipes. The Roman Catholic mission, school, the RCMP building, HBC store and Nursing Station have piped water. Those facilities with running water have indoor sewage facilities with septic fields. Most residents, however, utilize pit privies. A new garbage disposal grounds was constructed in 1980 with twice weekly pick-up. The communities have fire, police (local Band and Community Consta-

bles), ambulance service, a Nursing Station and a provincially operated school (k-9). Retail services are limited to the HBC store. A private store used to operate but it could not compete with the HBC store. Recreation facilities include a community hall, school gym and playground and an outdoor rink. There are approximately 133 housing units in the two communities.

6.3 Analysis of Sample Communities

This section deals with the socio-economic impacts of the transportation system in the sample communities. It evaluates the impacts from two standpoints: how an all-weather road has affected a community and what the perceived impacts of an all-weather road would be on a community lacking this form of transportation. The impacts are arranged by sections to delineate the different consequences that can result due to the advent of an all-weather road.

6.3.1 Economic Opportunities

The impacts of an all-weather road on Nelson House's economic opportunities vary. Most people interviewed felt that the road did enhance economic development in the community, but not to the potential that it could have, as more possibilities could have been utilized. Though business opportunities were limited, one business that has prospered is the taxi shuttle service to Thompson. A reason why more economic opportunities did not develop may be found in Nelson

House's close proximity to a regional center, Thompson being only 60 miles away. Cross Lake experienced the same limited impacts as Nelson House. Economic opportunities are there but are not maximized. Hence, the road provided mainly convenience and a reduced cost of living. One would think that since Cross Lake is considerably farther away from a regional center (180 miles), more business opportunities would have developed due to the road. Most respondents felt that this would have happened if a bridge connecting the community to year round all-weather surface transportation was provided, as they are isolated during freeze-up and break-up periods (2 1/2 months). The limited ferry hours (14 hours per day) also constrict economic development.

The perceptions of enhanced economic development of the isolated communities seems to portray more optimism than was encountered in Nelson House and Cross Lake. Respondents in Garden Hill[150] felt that more businesses could evolve as a result of a road. In Garden Hill's case, this may very well be true as it is quite isolated geographically from other centers and may develop into a service center for the surrounding area. Brochet had the same attitude in perceiving enhanced business opportunities as Garden Hill did, although its development may progress on a more limited scale due to the size of its population compared to Garden Hill. But the experiences of Nelson House would seem to suggest the same

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[150] In this section the reference to Garden Hill also includes the adjacent community of Island Lake.

thing would happen in Brochet, as it is only 80 miles from Lynn Lake. Most people in the two remote communities felt that economic development, however limited, in their community had stagnated due to the lack of an all-weather road. It was indicated that a better quality of living would have been more evident, and the communities would have been that much closer to mainstream society. Though respondents who worked in communities that were serviced by all-weather roads and remote communities did not see any difference in economic development in the two types of communities.

One positive aspect cited for not having a road, is that these communities are given ample time to deal with the negative impacts. Some people felt the lack of economic possibilities in the communities may have restricted development and not the lack of a road, in addition to the fact that opportunities are not maximized. A problem that aggravates this situation even further is the limited amount of cash flow available which is particularly harmful to small business, as they cannot operate against the corporate size of the HBC; the latter who can accept credit and such sure sources of income as social assistance cheques, whereas a small businessman needs the immediate cash flow to survive.

6.3.2 Indirect Economic Impacts Of A Road

Aside from direct economic opportunities an all-weather road creates, there are indirect economic spin-offs which result from a road. These indirect impacts are discussed in this section.

Employment Opportunities

The benefits of an all-weather road did or would increase job opportunities in the four sample communities, although these being of limited quantity for the part-time construction generated from a road. There was a general consensus in all the communities, except Garden Hill, that other areas are made more accessible for employment with a road. Since there is high unemployment in all the communities, people can gain employment in the regional centers and commute back to their community. Greater employment opportunities was also related to other government policies, such as hiring policies directed towards minority groups. People in Garden Hill felt their community would not benefit from other areas as much as the other three due to the restriction imposed by distance.

Cost of Living

The main overwhelming benefit of a road was seen as the reduction in transportation costs resulting in a lower cost of living in all communities. In Nelson House's case a large proportion of the residents found it more advantageous to travel the short distance to Thompson to purchase a wider variety of goods at a lower cost. Cross Lake also experienced this, but since they lack a bridge prohibiting them from year-round travel, prices increase substantially during freeze-up and break-up periods as perishable and other goods have to be flown in. In Garden Hill, winter roads reduce

the cost of living substantially, but the winter road is only in operation for 6-8 weeks depending on the weather. Therefore, they viewed an even further reduction in costs with an all-weather road. Brochet now has to rely on the more costly air mode to transport in most of its needs. :f A further cause of a high cost of living in remote communities is that they are usually only serviced by one outlet, the HBC store. Therefore, the HBC store holds a monopoly and can charge what they want. For these reasons, remote communities would favor an all-weather road.

Isolation and Mobility

A reduction of isolation and increased mobility were also main benefits for all sample communities enabling more personal freedom and choice. There was a general consensus that air transport is prohibitive to most, restricting movement. Reduced isolation has a greater impact on the younger residents in the communities than on the older people as it enables residents to broaden their views on the outside world. In the opinion of the Provincial Government, Nelson House's isolation was reduced so much that the airstrip was abandoned. In Cross Lake the reduced isolation has relegated the airstrip to mainly medical trips. Cross Lake though, still has a feeling of isolation during freeze-up and break-up periods and during the limited hours of ferry operation in the summer. In Garden Hill some people felt that even with an all-weather road the community would remain isolated

due to the geographical distance from any center, while others did not see the distance as a prohibiting factor. With an all-weather road, Garden Hill would prefer a link south to Winnipeg instead of a link north as most of their current contacts are with the South, where the winter road originates from. On the other hand, Brochet would welcome any additional form of transportation in order to reduce its isolation.

Some people see a road as more of a necessity to reduce isolation than others, these being the young community members and professional workers, whereas older residents do not rank a road as a high priority.

Operating Costs

The four communities also indicated that while a road may cause higher costs in operating vehicles, most did not view it negatively and were willing to accept this. They realized that they have to rearrange their priorities and budget things differently. They also looked at it in terms of what benefits are produced with a car. A car in communities with a road is starting to become a necessity and not a luxury. Some felt costs on their income are transfered from other means (ie. ski-doo and boat) to the operation of a car as these other things are used less. The operating costs of a car may be restrictive for people on a limited income as they would not be able to afford a vehicle or operate it as much as they would like. But this also holds true for alternative means of transportation now available.

Access to Regional Centers

Most residents of the case study communities felt that access to wider social and economic services regional centers have to offer are important for the benefit of a community. This view was not so pronounced in Garden Hill as many again said distance was a main inhibiting factor. Access to regional centers created more personal freedom, choice, leisure time, cultural exchanges, recreation, changes in lifestyle enhancing personal development and in general the opening up of a whole new world. This held true especially for younger people.

A few insights offered, stated the increased travel a road provides benefits the regional centers proportionally more than the native communities in question. Also problems can arise depending on what services were made use of. People are also restricted by income and whether or not they have the means for travel. Some respondents felt that access to regional centers was not necessary -- although it was more conducive to enhancing quality of life -- and goods and services should be decentralized and made available in the community instead of people having to go to the regional centers. But one would have to question the level of demand necessary to sustain certain services.

Nelson House is a prime example of a satellite community taking advantage of the goods and services offered in a regional center. In the immediate future no change is pre-

dicted in this pattern. Cross Lake also benefits from regional centers, but more so in the winter (ie. ice bridge) due to their transportation problem (lack of a bridge). Although, residents did not make use of the regional center as much as Nelson House because of the added distance. Therefore, Cross Lake would stand a better chance of setting up certain services in the community. Garden Hill would not derive as much benefit as Nelson House or even Cross Lake does, though they still would benefit from a regional center (Winnipeg). Distance may or may not be a factor depending on the outlook of the person. Garden Hill may be too far away in order to fully appreciate the advantages that a regional center can offer. Also if distance is a factor, people may fly out for the convenience it provides. Brochet would take advantage of the regional center of Lynn Lake which would be comparable to the situation that exists between Nelson House and Thompson. Brochet's population does not really warrant certain services locating in the community, so they would have to commute to a regional center to obtain them.

Traditional Activities

A road would not have that much of an effect on the traditional activities of remote communities. It would provide easier access to the fishermen and trappers whose areas come into contact with the road and would allow them the means of exporting their catch in the most efficient manner. A neg-

ative aspect is that a road may come into contact with existing trap lines and disrupt them. As well, a road may bring sport fishermen and hunters into conflict with area fishermen and hunters, necessitating the need for a resource plan to minimize conflict. However, all of the communities surveyed saw the young not getting involved as much as before due to a road. The reason being, that a road offers them a wider variety of things to do. In the past work and leisure were considered the same thing, now different activities, brought by a road, occupy their time. But, a road is not solely to blame for the deterioration of traditional activities as it is becoming increasingly difficult to maintain a living on these activities. Garden Hill though, felt that they would retain more of their traditional activities compared to the other three communities because of their distance from other centers.

6.3.3 Resource Development

Tourism

In the sample communities an all-weather road has the potential for increasing tourism within the community, which adds employment opportunities. Most residents felt tourists have a positive effect on the community as they purchase local goods and services. Others felt tourism did not generate that much of an impact, as the tourists come totally outfitted, producing only a residual effect on the community. Tourism is seen more as a positive influence by the

younger generation than by the elders of the community. It is seen as positive if it does not come into conflict with area fishermen, trappers, hunters and loggers.

While Nelson House had experienced some effect of tourism, it felt the proposed fly-in lodge would have a more positive effect on the community as tourists would have to buy local goods and services. However, this proposal is tied into a land exchange deal between Manitoba Hydro and the Provincial Government. In Cross Lake, most of the respondents felt tourism was limited as tourists did not come into the community, and utilize only the area around the Minago River to the west of Cross Lake. A lot of people felt the lack of a bridge and the hydro diversion project has had a negative influence on tourism as it is an inconvenience to potential tourists. Residents felt that tourism might increase if a bridge was put in. Garden Hill saw tourism increasing slightly, but distance would be a factor. In providing a road to remote communities there might be a switch in clientele from fly-in to drive-in tourists, although, depending on distance fly-in tourism may be maintained. Fly-in tourists are seen as having a greater impact, as they would buy local goods and services, whereas campers may drive in outfitted. Brochet is another community that saw tourism as a resource that can be exploited to broaden its horizons. There is a hotel in the community that the Band is renovating and a proposed lodge is being built five miles from the community.

While tourism can be enhanced with a road, a problem exists. Since most communities only have a HBC store, the money earned does not go back into the community and without a road providing lower transportation costs new business development likely will not occur.

Forestry, Fishing and Trapping

Benefits to forestry, fishing and trapping as a result of a road vary between the four communities. Nelson House experienced a limited increase in forestry. Fishing and trapping were ruined due in part to the hydro diversion project. Although the road allowed lower transportation costs for exporting products, these activities remained more or less the same. Cross Lake also experienced deterioration in the areas of fishing and trapping caused by the hydro diversion. Forestry increased for the provincially owned Manfor company, but it is mainly external to Cross Lake.

In Garden Hill new fishing areas are foreseen, as fishermen can get their catch out instead of being limited by air. Trapping was not seen to increase to a great extent as major areas would not even come into contact with the road. However, forestry would increase dramatically as there is a lot of marketable timber in the area of which Abitibi-Price has the resource rights, further promoting a southern link. A road is seen as a major priority in order to exploit this resource.

In Brochet, mainly fishing areas would open up with a limited increase in trapping. Fishing in the winter months would be feasible with the reduced transport costs. A road would not have that much of an effect on forestry as the area, being near the transition line between forest and tundra, is not viable for commercial consumption, thereby confining the activity to local heating purposes.

6.3.4 Social Impacts Of A Road

Social Contacts

For all the sample communities, a road means an increase in social contacts due to a road's unrestricted nature permitting increased personal travel. Nelson House experienced an increase in social contacts mainly with the Thompson region as a result of the road. There are also a lot of contacts with the South Indian Lake community as residents are members of the Nelson House Band. Cross Lake experienced an increase with the whole northern area. It was felt that contact is greater in the winter months as people are not restricted by the hours of ferry operation. Garden Hill foresaw an increase in social contacts, especially within the Island Lake area as inter-community travel is widespread now and a road would only enhance it. Brochet also foresaw an increase in social contacts with the surrounding area provided by the easier accessibility a road brings as inter-community travel also occurs.

Recreation

Collectively, all communities experienced or perceived an increase in recreational activities with a road. All felt that there would be a lot more inter-community participation with the surrounding areas due to the easier and cheaper access a road provides. This enhanced recreational activity has the greatest impact on the school age group which is needed in an educational sense for human development. It widens peoples perspectives and benefits the respective communities. A comment offered, is that although recreation is increased, private recreation was effected adversely as people did not use the outdoors or spend as much time with nature as before.

Marriage

The majority of respondents in these communities felt inter-community marriages did not or would not increase all that much with the advent of a road. There was a general belief that inter-community marriages take place now. While a road would provide easier access for more contacts, permitting a limited increase in these marriages, the change in marriage patterns would not be that great.

Education

A road was seen as having a positive effect on education. Presently, students are flown out to different centers to finish their high school education as schools in most communities only go up to grade 9 or 10. Most respondents saw a road having a positive influence on education, however psy-

chological it may be. Students possess a more positive framē of mind by being able to return whenever they want. With better accessibility education is not viewed as being negative or forced upon them as it is when access is limited. Before students were only able to return a few designated times a year by air. A road would make it cheaper to return in terms of money, but not of time for most communities. On the other hand, some felt a road provided the student with the opportunity to return home more often, thus promoting a lower educational retention rate. Others felt education, especially post-secondary, had not fully been taken advantage of. A road would effect high school education the least in Garden Hill due to its distance from other centers, but in all communities distance may be restricting for post-secondary education participation. This was why certain respondents felt schooling would not be affected all that much.

Culture and Lifestyles

In all communities, most people did not view a road a having a detrimental effect on cultural deterioration or lifestyles. People felt that a loss of culture is inevitable and other factors have contributed to its decline. While culture was effected, most viewed it as a step in speeding up the development process towards mainstream society. There was a minority of divergent views in the communities, but on the whole, the majority of people accept

progress and view a road as a positive motivation to a proper social life. However, this depends on the attitude of the people. For instance, this view was not so common-place among elders who view a road more negatively than the young, as they may be opposed to change. Though these individual viewpoints do not take the well-being of the whole community into consideration.

For the most part a road did or would have an effect on the lifestyle of a community. This effect varied slightly between all-weather road and remote communities surveyed. Nelson House and Cross Lake saw their habits becoming more closely integrated into mainstream society. With the increased personal freedom offered by the road people became more aware of differing lifestyles which brought the community more up to date and reduced lag time. Some saw it as adapting to the world with a transformation period of a few years enabling them to experience what other communities take for granted. For example, buying habits have changed with the automobile becoming a necessity. Perception of the effect a road would have on lifestyles in the two remote communities pretty well parallel the all-weather road communities. However, both Garden Hill and Brochet felt habits would change but not that much, as a road would just provide more convenience. One would have to wonder though, as change is inevitable.

While certain aspects of social lifestyles would be affected adversely, -- increased alcohol/drug abuse which is correlated with increased personal freedom -- it has to be controlled. There are wide beliefs that culture and lifestyle have deteriorated due to other factors such as welfare, the educational system which made the population more sedentary, limited resources in the community and T.V.

An increase in stress, tension or a loss of identity due to a road was not witnessed or foreseen. Most residents felt it might increase somewhat and may affect older residents more. An influx of people may add to this also. Indirectly, the greatest increase in stress and tension comes from the increase in alcohol and drug abuse and the effects this has on families and the community as a whole.

Alcohol and Drug Abuse

Overwhelmingly, the greatest negative aspect of a road indicated by all respondents was the increase in alcohol and drug abuse afforded by the greater accessibility and its negative connotations on the socio-economic development of the community. Nelson House and Cross Lake felt alcohol and drug abuse had increased due to the greater accessibility, besides the fact that it is harder to police now. Garden Hill and Brochet also noted this as the major concern of an all-weather road. The remote communities realizing this, indicated that some sort of strategy would have to be developed to combat this problem. An increase in crime is asso-

ciated mainly with the increased alcohol and drug abuse. Therefore, it is indirectly related to the road. Other factors of increased crime are due to increased expansion of the community with a lack of law services and increased transients from outside. Some people felt crime decreased with a road as people do other things to occupy their time. This was evidenced in Cross Lake where it was noted that crime increased when the ice road connecting the community is out.

Overall though, respondents in the case study communities indicated that benefits outweighed any negative aspects brought about by a road even though economic development was not or would not be enhanced substantially. A road was seen as contributing more to social benefits than anything else.

Migration

All four communities indicated that a road did not or would not cause increased out-migration from the community. Nelson House and Cross Lake have noted that their communities are relatively stable and actually have people moving back into the community, as the better access and convenience reduces the need to move. Since native communities are closely knit, people are willing to move back. Garden Hill and Brochet also did not foresee any mass out-migration as the communities are stable and also saw the better access and convenience offering an incentive for people to move back. If people were to move out it would be the younger

ones, who given time would likely return. It was noted in Brochet, that the trend now is for people who drop out of school to move back to the community and settle. One inhibiting factor to this though can be the critical housing situation experienced in these communities.

With a road the communities did not see that much of a difference with an increased intrusion from the outside, which would remain confined to professionals (ie. teachers and nurses) and government agencies. The remote communities are a little more optimistic and foresee a slight increase in people from surrounding areas. This may be attributed to the recreational capacity of these communities, especially Garden Hill. Also, since the length of stay of professionals is rather limited (2-3 year period) the remote communities felt that this would perhaps increase with road access.

Welfare

All communities felt welfare was not really related to the road and tied into a wide gamut of things (ie. lack of resources, unemployment, etc.). Welfare would decrease if jobs were created because of the road; also, a possible decrease is anticipated once the road is constructed, providing economic opportunities were maximized.

6.3.5 Political Impacts Of A Road

It is felt by most respondents that political actions of all-weather communities have increased due to the simple fact that a road has made it easier to go out to more meet-

ings and get involved with other groups. Differing views were revealed though, as in the case of Garden Hill, where respondents felt political actions would not be affected all that much due to the present activeness of the community in inter-community relations. A road though would make it easier, cheaper, more accessible and more convenient to participate. Some felt that community officials would still fly due to the time savings provided, because of the distances involved. A road may make a community more accessible and provide greater awareness for participation, but involvement depends on the community's political activeness. The media also has a dramatic effect on awareness of issues, thereby changing the level of needs in these communities due to the increased awareness.

The majority of the respondents in both categories of communities felt that a road would not cause the community to lose control in administering its affairs. While some admitted that there would be more external factors coming into play in a community's affairs, these were viewed in a positive manner. For instance, there likely would be more organized policing in the community.

6.3.6 Regional Development Considerations

When all the positive and negative aspects brought about by an all-weather road are considered, the communities surveyed strongly indicated that the provision of a road was just a step, albeit an integral step, in the overall devel-

opment of the area and not the total answer to curing community problems. Some professionals who worked in both categories of communities, felt that the road had not provided the answer in presently linked communities, and so it likely would not be the answer for a remote community either. Hence, a road was not viewed as a panacea for native communities. It was realized that other programs, both social and economic, are needed to enhance the quality of life in these communities and the weight of development should not fall on the transportation system alone. However, a road is an integral part of the development process as it sets the community in the right direction. Some people felt the road may be abused in the first few years until the community realizes what advantages could be brought about by the road. This was evidenced in Nelson House as the road initially compounded problems which took a few years to iron out. In remote communities some older people did not want to see a road, while most respondents realized that a road to their communities is not feasible at the present time.

In the provision of a road to Nelson House and Cross Lake the Province appears not to have considered local needs. Resource requirements provided the main justification for these two roads. Nelson House was just 7 miles form the Thompson-Lynn Lake road and Jenpeg hydro station was the main reason why a road was extended to Cross Lake. In Cross Lake, the Province wanted to put the road on reserve land

because of a narrower crossing. But an agreement could not be reached, so the road was built on crown land adjacent to the reserve at a much wider crossing. The increased cost of a bridge was likely why one has not been put in to date. As well, there seems to have been no co-ordination with the internal systems as the main criteria were economic, concerned with minimizing the cost of road construction. However, both communities' internal systems were not that developed prior to the provision of the external link.

Moreover, as a result of the economics of reduced transportation provided by a road, the effects on other modes were not considered and consequently they declined in use. For instance, as stated previously, the Provincial Government felt Nelson House's airstrip was unnecessary as it is more efficient to make medical trips by road, and one would not have to depend on the weather. The land is now being redeveloped as residential. Also mentioned previously, most of the air passenger traffic in Cross Lake is restricted to medical trips and some freight during freeze-up and break-up periods.

In the provision of these roads people for the most part felt that a road was just seen as an asset without the negative aspects being considered. While they may have been known they likely were not weighed against the positive, as a road is viewed as a basic right. The people mainly wanted a road to reduce costs and increase mobility. Remote commu-

nities likely will not experience these types of situations unless a resource development warrants the construction of a road. If it does or the government decides to build a road, then more co-ordination will be required as these communities have more developed internal systems. Also, communities being more conscious of the negative aspects, will take them into consideration. As for the redistributive effects, the other modes will also suffer due to the lower cost surface transportation.

6.3.7 Social Infrastructure

Before a community starts concentrating on the provision of an all-weather road the majority of respondents in all communities felt the basic services of hydro, water and sewer, communications, schools, recreation facilities, medical care, housing, etc. should be provided first to establish a solid foundation for the community, thereby enhancing the quality of life. These things were viewed as important due to the deplorable conditions prevalent. But, it was noted that a road would reduce the costs of providing these services and knowing that it was there would provide a psychological boost for residents.

In Garden Hill, it was felt that the winter road reduces the cost of these services enabling them to be built first. Hydro, sewer and water and housing are major concerns. In Brochet, until they receive a public winter road these services would be too costly to provide. Telephones which are

very inadequate, hydro, water and sewer are main concerns for the community. In all communities a good communications system was seen as providing one step in reducing isolation experienced in remote communities. In order to receive some of these services, a community may have to change some of their living styles as townsites are too spread out in order to receive efficient services like water and sewer.

6.3.8 Adequacy Of Remote Transport Services

Current Transport System

In the two remote communities the current transportation systems were found to be inadequate. Both communities felt that government should take more action to provide sufficient transportation to remote communities. One year-round mode of transportation is not enough as air can be restricted by weather, schedules, cost, etc. In Garden Hill, it was felt that the current transportation system is adequate from the government's viewpoint. While the system is fairly good, the government gambles each year with the winter road in trying to bring in goods.

Winter roads can be adequate in reducing costs and increasing mobility when isolation is the greatest -- in the winter -- when they are reliable. Costs are reduced substantially in Garden Hill when all goods are trucked in, but for the past two years the winter road system has not been that reliable due to the unseasonably warm weather. The better the winter roads are constructed the more economical

they are. A larger portion of the benefits go to the government agencies though (see section 3.5.3.2). Respondents felt costs can still be reduced further with the provision of an all-weather road. In Brochet most people felt public winter roads would be sufficient in reducing costs and increasing mobility. Presently, the private winter road, which is only open for two weeks, is mainly for the HBC store and Manitoba Hydro. More people would use it if it was public and kept open longer. Passenger travel in both communities can be expected to use the winter roads frequently as they utilize them to travel to regional centers to purchase goods and services and for contact with the surrounding area. A winter road offers most residents an alternative for passenger and freight decisions to the cost prohibitive air mode. In Garden Hill, some respondents felt that people are restricted to air travel, as distance (14 hour trip by winter road to Winnipeg) and the short winter road season are limiting factors. As well, a constricting factor in both communities is that not everyone owns a vehicle (in Brochet practically no one does).

Alternative Preferred

Realistically both remote communities felt they should have an alternative choice of year-round transportation. This way they would have the option on how they want to travel, instead of being captive to the more expensive air mode. In Garden Hill, some felt that without a road they

are not even considered as a part of the province. But others felt that while a road would be beneficial no more than air can be realistically provided. A reliable winter road would help fill this gap. In Brochet, they would prefer a barge and winter road system so an overlap in services occur, which would benefit the community. Some felt a public winter road would fill the void for the time being of the unfeasible nature of a road, while others felt only air can be realistically provided.

From the social viewpoint, people want roads to lessen negative impacts associated with remote communities, however, economically roads are out of the question. While the economics are realized, a community may have to initially settle for provision of the basic services (ie. airstrip). Although, all case study communities felt government policy should move away from piece-meal steps, towards a long-term decision of developing a roadway system for remote native communities.

All-Weather Roads: Perceptions

Whereas most respondents indicated a need for government to establish a long-term plan for the provision of all-weather roads, there were some respondents who were more pragmatic in their outlook. These people had beliefs ranging from upgrading the basic air facilities due to financial constraints imposed on government to the bands delivering their own transportation networks.

The all-weather road communities of Nelson House and Cross Lake felt government should establish some sort of road program to remote native communities. The all-weather road communities view a road as a basic right and the best attempt should be made to provide roads to remote areas. Some respondents in Nelson House and Cross Lake felt basic air services should be concentrated on first, as roads to some communities are unfeasible, and then progress in stages towards all-weather roads. However, air transport for the most part was viewed as prohibitive due to the cost, and winter roads were viewed as insufficient in providing necessary service to remote communities.

While the remote communities of Garden Hill and Brochet also felt all-weather roads should be provided by government as a basic right, attitudes differed slightly. In Garden Hill, views coincided with the two all-weather road communities, indicating that government should move away from the incremental steps of providing a winter road year after year and that this money be put towards the construction of a road. Most residents felt that while government should provide a road, it was viewed as being a long way off. Due to this perceived long-term delay, it was felt that the basic air facilities should be upgraded first. This way more money could be spent on improving other social infrastructure. Subsidies to air were not viewed as helping as it was only seen to last a few years then the community would be back to

where it started. Brochet on the other hand, did not for the most part see the provision of an all-weather road to their community by government as a realistic option. Most of the respondents in Brochet felt an all-weather road was unfeasible and money diverted from a road could be put to use in more needed areas (ie. social infrastructure). Respondents in Brochet were found to regard the provision of a public winter road as being of greater significance. The community also saw government providing upgraded air services along with the introduction of another carrier, and direct or indirect subsidies (ie. income tax deductions).

From the case study communities, while all viewed an all-weather road as a basic right, the all-weather road communities were more assured in thinking that government should provide all-weather roads to remote native communities. The remote communities did not have convictions as strong as the all-weather road communities. Although this depended on how isolated a community is. For instance, Garden Hill was more likely to consider an all-weather road a higher priority than Brochet, but not to the extent in which Nelson House and Cross Lake viewed what remote communities' priorities should be. Garden Hill was more pragmatic and can be satisfied with an efficient winter road for the time being. Though they saw the priority for a road increasing in the near future. Brochet saw their immediate concern being the acquisition of a public winter road in order to reduce transport costs and isolation.

Remote communities look at the provision of their transportation in stages, with Brochet one step behind Garden Hill who is one step behind Cross Lake and Nelson House respectively. This also held true in their perceptions of what government policy to remote communities should be. A reason why the remote communities are not quite as adamant concerning road construction as all-weather road communities, may be due to their growing realizations that government's financial limitations prohibit the construction of all-weather roads to some of these areas, plus their growing apathy due to this inaction. Therefore, remote communities attempt to better their transportation system in stages.

Need For Prior Consultation

Overwhelmingly, both all-weather road and remote communities felt that prior to the provision of an all-weather road a remote community should consult all-weather road communities to see how the provision of this form of transportation has affected the community. This format would allow remote communities to become more aware of the positive as well as the negative impacts of an all-weather road on a community in order to see if they relate to the particular community in question. A community has to be aware that a different community's problems might not be applicable in their community. All communities felt that consultation with a community is needed right from the planning through to the implementation stages. This way the needs and wants of a

community can be established and a road would not be forced upon a community. Educational and awareness programs are felt to be important and also should be set up prior to the provision of a road to reveal various impacts and how the road will affect the community's lifestyle.

Being able to do these things prior to the provision of a road is viewed as a benefit for not having a road as yet. Certain programs then could be co-ordinated and set up before hand to deal with the problems. As well, the provision of transportation should be co-ordinated with other government departments and agencies so as not to inflict to much strain on other services. For instance, the road should take into consideration the possible need for more policing and health care etc. By taking these things into consideration, a community can be more **pro-active** in trying to minimize unwanted aspects associated with a road instead of being **reactive** and trying to counteract the situation blindly once it occurs. This concept is picked up in section 7.2.

6.3.9 Discussion

For the most part the remote communities' perceptions re-iterated what the all-weather road communities had experienced from the provision of road transport. Both types of communities saw the main benefit of a road as reducing transportation costs so that a reduction in the high cost of living, prevalent in these communities, can

occur. As well, they saw the reduction in isolation and increased mobility as other main benefits. The main concern associated with the advent of a road is the increased alcohol and drug abuse and related activities that go along with it.

One deviation experienced is that the remote communities are more optimistic in the hope for enhanced economic development compared to the communities with all-weather road access. They may be more optimistic because they see a road reducing costs of bringing in supplies, therefore, creating a situation where business is more feasible than before. Their optimism may not be unfounded, as Garden Hill does have a valid point. Aided by geographical distance, Garden Hill may be able to act as a service center for the surrounding communities. Another difference apparent in the two categories of communities is that remote communities did not see their habits changing as much as was experienced in the all-weather road communities. The remote communities may be under-estimating the power of change.

While the reduction in cost of living is paramount, both types of communities saw another main advantage of the road being the overall social benefits afforded, hence, enhancing their quality of life. Although, it is recognized that other programs are needed to combat the lack of resources, current situation, etc. in these communities in order to promote enhanced economic growth. Even though economic growth

does not deviate that greatly from a remote community to a community with all-weather road access, this should not be a major stumbling block in the provision of an all-weather road as socio-economic conditions are enhanced greatly with road access.

The socio-economic impacts of the transportation system in the two categories of communities reveal that native needs are fairly consistent with the analysis provided in the review of the literature. For instance, in Lorne Tangjerd's thesis it is indicated that the main consideration for a road to native communities is for the indirect benefits of a reduced cost of living, plus the social benefits produced. The negative aspects, of which alcohol is the main nemesis, remains deeply rooted in the minds of residents in both types of communities. For the most part findings in the four sample communities highly correlate with previous findings.

The one major deviation from previous literature is the question of depopulation of areas once a road is constructed. Author Jim Lotz in his book NORTHERN REALITIES, stated that roads lead in two directions. Lotz theorized that roads would facilitate the exodus of people out of an area. This thinking deviated from the present field research as it was found that native communities are relatively stable. The two communities surveyed with all-weather road access did not find out-migration prevalent. Instead they experi-

enced a movement back into the community as the road provided easier access and more convenience, thereby reducing the need to emigrate out. It was also perceived by the two remote communities that the same thing would happen when they received an all-weather road. It has to be understood that native communities are stable entities having been present for hundreds of years in the same locality and thereby not likely to disappear if a road is introduced. The make-up of native communities have long standing ties with the area and are unlike resource towns that become mere shadows of their former selves once the resource no longer becomes feasible to exploit.

6.4 Conclusion

In summary, this chapter dealt with the present situation concerning the four case study communities. Firstly, a community profile was compiled on each community in order to develop insights into how the community is structured and what transportation requirements it has and needs. From there an analysis of the communities was conducted in order to disclose the real and perceived socio-economic impacts of an all-weather road. The data was sorted and collated to see what common denominator arose. When this was concluded, it was shown that perceptions on the effects of an all-weather road on a remote community were consistent with experiences of all-weather road communities. One difference

detected was the fact that remote communities were more optimistic in their perceptions of economic development in their community with the advent of an all-weather road. Another difference is that remote communities felt their habits would not change as much as was experienced in the communities with all-weather roads. Basically, the same benefits and costs of an all-weather road, plus the effects on lifestyle came through consistently.

The information obtained during the field research also corresponded with the material obtained in the literature review. Except for the aspect of community stability, which was found to be unaffected, and in fact was enhanced.

In closing, from this analysis it is felt that generalizations of socio-economic impacts on other native communities can be made with a relatively high correlation. Therefore, the characteristics of the case study communities apply to all native communities in the study area. With this in mind, the next chapter of this thesis returns to the general categories of native communities from the specific analysis presented here. Hence, recommendations and actions will have an effect on all categories of native communities in Northern Manitoba.

Chapter VII

TOWARDS A COMPREHENSIVE POLICY FOR REMOTE NATIVE COMMUNITIES

7.1 Introduction

After an extensive review of the various transportation systems and policies affecting Northern Manitoba native communities this chapter outlines a comprehensive policy for these remote native communities. This chapter reverts back to the general categories of native communities (refer to Table 3) from the specific case study communities.

Firstly, the chapter reviews what solutions concerning transportation to these communities are needed. This takes the form of an agenda. Scenarios are then constructed to illustrate how the proposed solutions will work given a certain policy direction. Selection and evaluation of these options are provided to determine the impacts on native communities and other actors. From these scenarios and options, a comprehensive policy for remote native communities in Northern Manitoba is proposed. Specific actions for particular native communities are documented.

7.2 What Needs To Be Done: An Agenda

This section details what "ought" to be done to enhance transportation services to native communities. Solutions proposed reflect broad requirements for all native communities and community specific solutions.

In order for native communities in general to improve their socio-economic conditions through physical transportation linkages, certain requirements must be met. An improvement of social conditions in these communities is needed. The communities through various programs (ie. Northern Development Agreement) can co-ordinate with the senior levels of government to put policies or structures in place to upgrade hard and soft services to establish a basic foundation. The types of activities that ought to be concentrated on are health, welfare, education, recreation, housing, water and sewer, hydro and communications. Since it was recognized that these services were needed in the case study communities, a greater attempt ought to be taken to provide them in all communities before the physical linking occurs.

From this it is proposed that transport problems be corrected in the most effective and efficient manner, taking various groups' interests into consideration.

Community specific solutions proposed reflect the different needs of each community. Where native communities are separated internally by water, an attempt to alleviate the

problem by providing for a more efficient movement of traffic is proposed. For instance, in a community like Garden Hill, which is separated from Island Lake by water, the main priority consists of a causeway linking these two communities. Then, from a priority list, an all-weather road be constructed to Garden Hill. With this link Garden Hill then could act as a transshipment point to outlying Island Lake communities.

Where the communities are separated from the provincial road system because of the lack of a bridge, the installation of this facility tops the priority list. An example of this type of community is evident in Cross Lake and Norway House.

In communities that have the opportunity to be served by public winter roads and barge, priorities can be established to create an effective system that utilizes both forms of transport in order to lessen the seasonal gap. Communities that can benefit from this solution are the ones along the eastern shore of Lake Winnipeg and Brochet.

In communities that do not have an alternative form of transport, other than air, the first priority is for the provision of an alternative transport service. This can take the form of another carrier in order to invite competition, thereby reducing prices, or by establishing a public winter road. An example that comes to mind is the group of communities in which Brochet falls under. With only one air

carrier (Calm Air) and one store (HBC), monopolistic practices are evident. Brochet's first priority is for the private winter road to be made public. By proposing this, the community would have an alternative transport link for a longer period of time. Brochet's next priority, which they have an opportunity to utilize, is for the establishment of a barge system on Reindeer Lake.

While these types of proposals may only directly affect certain communities, other communities might receive indirect benefits. For example, a community may benefit from lower transport costs due to a restructuring of the distribution network even though they did not receive a direct physical link.

By putting in place policies or structures before a physical linkage is supplied, a community, as well as government, can be more pro-active in delivering a certain service. Hence, the negative aspects of an all-weather road can be minimized. This way the various groups involved will not have to try and counteract a situation with stop-gap measures.

7.3 Analysis Of Options And Alternatives

This section analyzes various transportation options and alternatives that are available to the Province of Manitoba, which in effect are uni-dimensional scenarios. Although a policy option depends on what the Province sees as its pri-

orities, five different options are proposed for remote communities. In each option the form of the transportation system to be established is discussed. The effects of each option on the various groups involved is evaluated. As well, the selection and feasibility of each option are supplied. From these options, the "best" alternative is selected and recommendations emanate as a result. While these options concern just the physical transport facilities, the need for **social infrastructure** is recognized regardless of which option is selected. Policy recommendations are made in this regard as well. Social considerations are a direct by-product of the physical policy choices and technical applications thereof. As a result of this, the selection of the "best" policy reflects the most favorable social needs.

7.3.1 Option #1: Do-Nothing Alternative

Maintaining the existing system is an alternative which must be considered as it is the basis for comparison of all other alternatives.

This "business as usual" option assumes that the current transportation system will be maintained and no additional services will be implemented. Therefore, the main transportation system to remote native communities would consist of the airstrips, public winter roads and a few private winter roads. As well, a limited barge service to communities on the east side of Lake Winnipeg would be in place. This

barge service seems to be dwindling, however, with the development of land line hydro power to Bloodvein, Berens River and Poplar River.

For the categories of remote communities not linked with the year-round road system, maintaining the present system does not serve adequately their transportation needs. Cross Lake would view this option adversely as their main concern is for the construction of a bridge in order to give them permanent surface access. This also holds true for Norway House. While the public winter road can be adequate in reducing costs to remote communities in the same category as Garden Hill, they are not always reliable. The largest inequities of the present system occur in the category of remote communities that do not have yearly public winter roads, such as Brochet. Brochet has to rely mainly on air transport for passenger and freight service which is cost prohibitive to most. So from the standpoint of this community, the present system is grossly inadequate. However, from the government's standpoint, the present system may be viewed as adequate given the limitations and restrictions placed on them.

From social and economic viewpoints, this option would have no effect whatsoever on enhancing life in remote native communities.

7.3.2 Option #2: All-Weather Roads To Each Community

The cost of building all-weather roads to each remote community would be astronomical. For instance, in 1984 Trident International Inc., conducted a feasibility study based on aerial photographs for a 168 km road from Bloodvein to Poplar River. The cost in 1984 dollars was $40 million or $235,000/km.[151] The Manitoba, Department of Highways and Transportation concurred with this cost in their EAST OF LAKE WINNIPEG TRANSPORTATION STUDY conducted in 1986. The Department of Highways estimated that road construction to the five major remote communities[152] due east of Lake Winnipeg from the existing Rice River Road was $75 million.[153] Since terrain around most remote settlements in Manitoba is similar to that found east of Lake Winnipeg, construction costs would range from $250,000-$300,000/km in northern areas.[154] Main considerations for costing are the terrain and the availability of gravel. These costs are about twice as high compared to roads in the southern parts of the province.

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[151] Trident International Inc., PROPOSAL FOR CONSTRUCTION OF AN ALL-WEATHER ROAD -- BLOODVEIN, BERENS RIVER, POPLAR RIVER, (Winnipeg: 1984), p. 6.

[152] These communities consist of Bloodvein, Berens River, Poplar River, Little Grand Rapids and Pauingassi.

[153] Manitoba, Department of Highways and Transportation, Policy Programs and Research Branch, EAST OF LAKE WINNIPEG TRANSPORTATION STUDY, (Winnipeg: 1986), p.29.

[154] Personal communication with Jack Craven, Manitoba Department of Highways and Transportation, Policy Programs and Research Branch, April 23, 1987.

The selection of this alternative would have the greatest socio-economic impact on the communities that are the most remote (ie. Brochet). Residual benefits would also filter down to communities in the areas adjacent to these remote communities. However, this option would have an extremely adverse effect on the Provincial Government. This option from the Provincial Government's standpoint is totally unfeasible due to the financial constraints placed on the government in recent years. Presently, the Province have placed a higher priority on maintaining the existing system with their limited budget. With increasing weight limits on the primary system in the last 20 years, the surface life of roads have been reduced. Consequently, the Province's ability to expand the road system has diminished. Therefore, there are no plans for extensions in Northern Manitoba. With the limited passenger and freight flow from these communities and rugged terrain, associated with high construction costs, a system of all-weather roads at the present time is uneconomically unjustified. The Province views the provision of a transport network as a pragmatic rather than an ideological matter.

Although this option would have the greatest impacts on remote communities' socio-economic development, the nature of passenger and commodity demand in these communities along with government financial constraints works against the selection of this option.

7.3.3 Option #3: Air Intensive

The inclusion of this alternative is to see if a more efficient mode of transportation can be achieved. In order to reduce air freighting costs existing presently, the air-strips would have to be expanded to accommodate larger, more efficient aircraft.[155] This option runs into a few problems. Firstly, the local carriers that operate in these remote communities would have to purchase new aircraft. But none of them has neither the capital nor the financial strength to do it without financial assistance by the Government. As the EAST OF LAKE WINNIPEG TRANSPORTATION STUDY indicated, larger aircraft may not reduce costs as there are other operation costs implicit in their operation. In addition to this, with the limited volume of freight each remote community requires, larger aircraft may reduce frequency of service.

This option from both a remote community's and government's perspective would be unrealistic. A remote community may lose regular service with no possible reduction in cost, while government would have to help local carriers in obtaining larger aircraft with capital assistance. A community like Garden Hill, which has a more economical public winter road would view this option more negatively than a community such as Brochet. Although, all publics affected would view this option negatively. Government currently

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[155] Manitoba, Department of Highways and Transportation, EAST OF LAKE WINNIPEG TRANSPORTATION STUDY, p. 34.

feels that money for airstrips could best be spent upgrading existing facilities.

This option would adversely affect socio-economic development in remote communities currently served by winter roads, as a loss of employment and increased isolation would result. This option would not even benefit the Province all that much economically.

7.3.4 Option #4: Limited All-Weather Roads, Improve Barge/Winter Roads

Under this option a number of actions can be initiated to improve the efficiency in Manitoba's current transportation system to remote native communities, or any combination thereof.

Firstly, the government can undertake construction for a limited expansion of the all-weather road system. This would lessen costs to the communities and government agencies and provide short-term employment for the construction of the road, along with other spin-offs. Secondly, a lesser step would be to upgrade or establish barge systems where they are appropriate. Thirdly, government can upgrade public winter roads or provide them where they do not exist. An effective barge/winter road system is adequate in reducing transportation costs in remote communities. Where the combination of these two modes of transport is feasible, the overlap of services would reduce isolation and costs experienced by remote communities dependent mainly on air, increasing the benefits experienced by these communities.

The remote communities that would receive the greatest socio-economic benefits would be the ones that would be accessed by an all-weather road. Next in line would be the remote communities which would receive a public winter road or barge system or both. For instance, Brochet comes to mind as a remote community that would benefit from the latter. The main problem of the barge/winter road option is that a remote community is still relegated to the air mode during freeze-up and break-up periods. Remote communities along the eastern shore of Lake Winnipeg would benefit from an improved barge system as they already receive winter road access. Remote communities like Garden Hill would not benefit from this option, unless the improved transportation system is in the form of an all-weather road. Other remote communities such as Shamattawa, would benefit from a public winter road.

The evaluation of this option depends on the community and type of transportation network it now receives. From the Provincial Government's standpoint, this would be the most favorable option, aside from the do-nothing alternative, as costs would be minimized. Government has a goal to provide feasible and realistic options to improve the transportation system at the lowest cost. Government agencies would also benefit as they would be afforded a cheaper means of transportation to ship their supplies in (ie. Manitoba Hydro with fuel). This option would increase the efficiency of Northern Manitoba's transportation system significantly.

Problems with certain actions of this option is that if the Province provides barge service to these communities[156] they would be setting a precedent, taking responsibility for matters in federal jurisdiction.[157]

7.3.5 Option #5: New Technology

The option of new technology exists, but is mainly restricted to developing more efficient means in the existing modes (refer to section 3.5.5). While the feasibility for revolutionary technological advances are quite limited, there is a possibility for the development of a hovercraft network. As stated in Manitoba's EAST OF LAKE WINNIPEG TRANSPORTATION STUDY, the hovercraft could possibly replace the existing barge system. A hovercraft for all seasons, would thus eliminate interruption during the freeze-up and break-up periods. Although studies have to be carried out to determine the viability of such a system. The benefits are that water transport would be more economical for communities along Lake Winnipeg and possibly Brochet with minimum cost to the Province.

By developing existing modes more efficiently, the socio-economic impacts increase concurrently. However, the implementation of a hovercraft would only have increased the socio-economic benefits for the remote native communities

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[156] A private company may not find it commercially viable to deliver the service due to a reduced demand for fuel oil.

[157] Manitoba, Department of Highways and Transportation, EAST OF LAKE WINNIPEG TRANSPORTATION STUDY, p. 33.

able to be served by this type of transport.

7.3.6 Summary

Out of these options, the "best" or "optimal" alternative would be Option #4, which consists of limited road construction, barge and winter roads systems. Option #1 is unfavorable to remote communities, while Option #2 is unfavorable to the Province. Option #3 is unfavorable to both proponents and Option #5 would only provide small benefits to a limited number of communities and government. Therefore, none of these options are desirable. This leaves Option #4 as the optimal alternative for government to follow. After trade-offs, Option #4 provides the greatest amount of socio-economic benefits for the Province and the remote native communities alike.

7.4 Recommendations

The recommendations presented here are separated into general, specific and supplementary actions. General recommendations purvey the basis for a comprehensive policy for remote native communities in Northern Manitoba based on the findings of the thesis. In order to implement the long-range policy, short-term plans have to be developed that will guide the actions in the direction of the long-term policy. Hence, specific recommendations deal with the problem areas now evident in the province. The supplementary recommendations deal with problems stemming indirectly from

transport and attempt to enhance quality of life in remote communities.

7.4.1 General Recommendations

As has been indicated from the findings throughout the thesis, there was no explicit comprehensive policy concerning transportation linkages to remote native communities. No action was initiated towards the native North until the late 1960's. Prior to this, the transportation network in Northern Manitoba was built with only resource based centers in mind. Adding to the neglect of native communities' transportation needs is the settlement pattern characterized by point development (refer to section 3.4). Even when the various levels of government became interested in the native North, transport provision followed a pattern of disjointed incrementalism which was too timid. While certain programs have proved successful, an overall strategy was not advanced. The best means of completely addressing the problem is deemed to generate a single comprehensive policy for Northern Manitoba's remote native communities, including all transport modes.

- **A COMPREHENSIVE POLICY FOR TRANSPORTATION TO REMOTE NATIVE COMMUNITIES BE DEVISED.**

Under this comprehensive policy the Province of Manitoba will delineate a future direction or "vision" for northern native transportation, working towards a long-range goal of

all-weather road provision. The present system to date, operates as an end and not a means. The Province would join into consultation with the Federal Government and various communities in drawing up this policy. This way the various needs and wants of the different actors can be delineated. Each community constitutes special consideration as needs and wants may differ between communities. By including social considerations, native communities can strive towards a more realistic goal of enhancing their quality of life. Furthermore, the Province, given its limitations, does not have the means to provide this network by itself. As well, the majority of residents of these isolated communities are under federal jurisdiction.

A set of guidelines for transportation requirements for the different categories of remote communities should be established. For instance, an all-weather road program should have a certain population size in mind. As well, an inventory of transportation needs and wants for each remote northern native community ought to be documented. Also, an opinion was voiced by officials of Northern Affairs that a priorization system for the selection of communities to receive transport improvements needs to be developed.[158] With these guidelines, the various government departments would become involved in the provision of transport facilities to remote communities in Northern Manitoba. The guide-

[158] This comment is based on personal discussions conducted with officials of the Manitoba Department of Northern Affairs, April 1987.

lines should be broad enough so provisions can be made to consider the various socio-economic impacts an all-weather road can have on a community. From these impacts, various social and economic agencies that are needed can be identified and set up before hand to deal with problems inherently related to a road, making the policy pro-active instead of reactive.

7.4.2 Specific Recommendations

Out of the various aforementioned options, Option #4 would be in the best interests of both government and the communities involved. The specific steps needed to be taken to enhance the quality of life in remote native communities follow. These steps aim at providing short-term objectives leading up to the long-range goal of all-weather roads for remote native communities. While these steps deal with physical services, the spin-offs produced enhance socio-economic development of a community.

- **AN EXPANSION OF THE ALL-WEATHER ROAD SYSTEM TO REMOTE NATIVE COMMUNITIES.**

Based on the priorization of needs for all-weather roads, the Manitoba Department of Highways and Transportation should proceed with a program of a limited provision of all-weather road construction. This would advance them towards direction of the long-range plan. The Province can start by completing the Rice River Road from PR 304 to Bloodvein[159]

[159] This road is currently being constructed 2/3 by Natural

which is recommended in the EAST OF LAKE WINNIPEG TRANSPORTATION STUDY. Then additional steps, based on reassessment of the system, can be implemented.

- **AN EXPANSION OF THE PUBLIC WINTER ROAD SYSTEM TO ADDITIONAL REMOTE COMMUNITIES NOT SERVED AS YET.**

With the situation existing as it does now, remote communities, such as Brochet, have to rely almost exclusively on air transport. While a private winter road is constructed for a minimal period to ship contracted material in, residents do not benefit all that much from this. If the winter road was public, mobility would be increased substantially, while costs would be reduced. Therefore, the Manitoba Department of Highways and Transportation ought to consider the expansion of their current winter road system. Until winter road operations are expanded into these remote communities, it is recommended that capital assistance be given to the communities to purchase equipment to maintain the private winter road after the contractor closes it down. The expansion of the system would follow a priority list as well. This list would be made in consultation with the Federal Government as they fund 50% of winter road costs in the province.

- **A BARGE SYSTEM BE ESTABLISHED AND MAINTAINED TO BROCHET. ALSO AN ADEQUATE BARGE SYSTEM BE MAINTAINED ON LAKE WINNIPEG.**

Resources and 1/3 by Abitibi-Price and is 23 miles long.

It is recommended that the Manitoba Department of Highways and Transportation, Marine Services Branch in conjunction with Transport Canada proceed with an establishment of a private barge service to Brochet. By implementing this, an alternative means for passenger and freight distribution would be provided in this remote community. This operation would be commercially viable as Brochet is serviced by diesel generators, placing a high demand on fuel oil. Therefore, both levels of government are recommended to assist this service to ensure operation.

As well, these departments ought to take steps in order to maintain the existing barge service to the communities of Bloodvein, Berens River and Poplar River. The Province cannot maintain this themselves as waterways are under federal jurisdiction. With the installation of land line hydro service in recent years to these communities, the demand for fuel oil has been greatly reduced. This has decreased the commercial viability of a private barge operation on Lake Winnipeg and is reflected in the only general freight carrier's reluctance to continue this operation.

The various departments involved can act to ensure that the barges operated, be able to handle mixed uses of passenger and freight services.

- **THE CONTINUATION OF THE PROGRAM REGARDING UPGRADING OF AIR SERVICES TO NATIVE COMMUNITIES.**

The Provincial and Federal Governments, under the Northern Development Agreement, are recommended to continue in their efforts to upgrade air facilities to northern native communities. Monies spent on the airstrip program in this agreement ought to be maintained for the upgrading of facilities and navigational services. As documented in the EAST OF LAKE WINNIPEG TRANSPORTATION STUDY, an expansion of airstrip lengths to accommodate larger aircraft would meet with limited cost savings. This is due to a number of problems, notably the limited amount of annual freight communities receive and carriers would have to incur large capital outlays to purchase larger aircraft. As well, frequency of service to these communities would be in jeopardy of being reduced. Therefore, objectives of the airstrip program should remain the same, with new money injected. A priorization list should also be established for airstrip construction to remote communities lacking these facilities.

- **THE INCLUSION OF BRIDGES TO CROSS LAKE AND NORWAY HOUSE.**

These communities are not classified as remote according to some government agencies, but they are isolated in excess of two months each year, becoming captive to air transport for this period of time. Hence, it is recommended that the Manitoba Department of Highways and Transportation, Bridges and Structures Branch include the construction of these bridges in their five year capital plan. By constructing

bridges to these two communities, a more efficient utilization of transport movement can be undertaken. This measure will enhance the socio-economic benefits of these communities more than they have already.

- **THE CONSTRUCTION OF A CAUSEWAY LINKING GARDEN HILL TO STEVENSON ISLAND.**

This link is of utmost concern for the residents of these communities. Without it the bulk of the people who reside on the Garden Hill Indian Reserve are separated from most of the crucial services which are located on provincial crown land on Stevenson Island during freeze-up and break-up periods. Most notably these services include the HBC store, the airstrip and the RCMP detachment. A causeway would facilitate efficient movement for community residents. The lack of this link generates a greater health and safety risk in cases of emergency. With the majority of the people of these centers separated from the airstrip and the RCMP, a helicopter has to be chartered to access both areas. This costly and time consuming remedy is grossly inadequate. As a result, the Manitoba Department of Highways and Transportation, Bridges and Structures Branch ought to include the construction of this causeway in their five year capital plan.

- **THE ESTABLISHMENT OF GARDEN HILL AS A REGIONAL CENTER SERVING SURROUNDING AREAS.**

In the areas that are conducive to area development (refer to section 3.4), the Province of Manitoba proceed with developing a hierarchy of systems to provide the level of services required. A policy ought to be enacted to establish transport links to the point where there is a heartland-hinterland network or relationship. For instance, Island Lake could be the center (heartland) serving all surrounding communities (hinterland). A community and regional identity could be developed in Northern Manitoba like that that exists in Southern Manitoba.

Priority has to be given to establish a transportation network to Garden Hill in order for it to act as a resupply center to surrounding communities. The necessary storage facilities and a barge service are needed to service the surrounding Island Lake area. Until this is established the present network would continue to operate.

- **THE CONTINUATION OF AN ONGOING STUDY OF REMOTE COMMUNITIES IN NORTHERN MANITOBA.**

It is recommended that the Manitoba Department of Highways and Transportation, Policy Programs and Research Branch continue studying remote communities' transportation problems and needs. With their recent study on transportation to communities on the east side of Lake Winnipeg, aimed at improving the efficiency of the system both quantitatively and qualitatively, it is recommended that this department continue their research. Two other areas needing examina-

tion are communities in North-Eastern Manitoba, north of Lake Winnipeg and North-Western Manitoba. From these reports an executive summary can be provided to indicate the various priorities in order for the Province to act accordingly and implement programs to alleviate the problems.

7.4.3 Supplementary Recommendations

Supplementary recommendations are offered which have an indirect effect of reducing transportation costs and isolation in remote communities, thereby enhancing socio-economic conditions. As well, social recommendations are proposed in hope of enhancing quality of life. This is done as physical links alone will not solve all problems, and in fact they may make some problems worse. Therefore, recommendations of a social nature attempt to alleviate or deal with problems associated with physical linkages, or the lack thereof.

- **THE CONSTRUCTION OF A LAND LINE HYDRO SYSTEM CONNECTING SEVEN NORTH-EASTERN REMOTE COMMUNITIES TO THE PROVINCIAL GRID SYSTEM.**

It is recommended that Manitoba Hydro follow through with their proposed connection to these seven communities (refer to section 6.2.3) immediately, as the dependence on diesel generators is a hinderance to the quality of life experienced in remote communities. The line connecting the seven North-Eastern Manitoba communities would reduce costs experienced in these communities substantially. Manitoba Hydro can follow up this project, by generating a list

detailing which communities will be linked to the provincial system in the future.

- **THE UPGRADING OF VOICE COMMUNICATIONS TO PRIVATE DIAL IN REMOTE COMMUNITIES.**

With communications being a form of transportation, an adequate system is viewed by residents of native communities as the first step in reducing isolation. A toll station pay phone system, such as the one in Brochet, is grossly inadequate and undermines the quality of life experienced in a community. Therefore, the Manitoba Telephone System (MTS) can work towards establishing a priority list for upgrading services to private dial in remote communities.

- **A LICENCE REVISION OF THE SPECIAL TERRITORY ON REMOTE AREAS, MAKING IT MORE CONDUCIVE TO PEOPLE AFFECTED.**

It is recommended that the Manitoba Public Insurance Corporation (MPIC) revise their special territory status on remote areas so people are not unduly affected. There is currently a reduced licence plate fee for remote areas, but this special plate restricts vehicles from the provincial road system. The vehicles still have to be insured, with costs depending on the territory and make of vehicle, year, etc. The only solution for residents in remote areas now, that are connected to the provincial system through a winter road or ferry, is to only insure their vehicles for a six month period. But then they cannot use the community's

internal roads without registration. Communities of Cross Lake and Norway House are not listed as remote, even though they are cut off from the provincial system for approximately two months and they pay the same rates as a person living in Thompson. Hence, MPIC should restructure their remote area clause so that registration rates are reflective of the service that is able to be attained.

- **A SPECIAL PARCEL POST SYSTEM TO SHIP NECESSITIES TO REMOTE COMMUNITIES BE IMPLEMENTED.**

It is recommended that Canada Post set up a special parcel post system to ship necessities to remote communities in order to improve quality of life afforded by the resulting lower costs. Transportation cost savings outlined in the EAST OF LAKE WINNIPEG TRANSPORTATION STUDY would be significant. By shipping more goods by parcel post, the air freight would be lowered. This would reduce the burden people in remote communities face.

- **THE IMPLEMENTATION OF A PROGRAM TO PROVIDE SOCIAL INFRASTRUCTURE TO REMOTE COMMUNITIES.**

The Province of Manitoba and Federal Government are to continue their hard and soft programs of providing social infrastructure under the Northern Development Agreement. Where-ever possible, these services ought to be expanded so residents are not disadvantaged compared to the rest of the province.

- **THE DEVELOPMENT OF SOCIAL SERVICES IN ORDER TO ENHANCE QUALITY OF LIFE.**

It is recommended that an agency such as the Manitoba Department of Northern Affairs organize a consultation among senior levels of government and the community in question to set up certain health, welfare, education, policing and housing programs etc. that will become necessary with a physical linkage. This will reduce strain on certain services. Also, education and awareness programs can be instituted to reveal the various impacts a road has on a community. These programs would be implemented by the level of government best able to deliver the particular service. Also, by setting up certain services that are perceived to be needed in a community prior to the provision of the physical linkage, a community will be able to deal with these problem areas when they arise. Therefore, negative aspects inherent in all-weather road access can be minimized.

7.5 Conclusion

The development of a comprehensive policy for remote native communities was examined in this chapter. Firstly, the solutions needed to enhance transportation services to native communities was detailed. Then various options and scenarios were put forth in order to determine which alternative, given a certain policy direction, would best optimize socio-economic development of native communities. The selection of these options were discussed from the communi-

ty's and government's standpoint. In considering evaluations of each option from different viewpoints, Option #4 was suggested as the optimal solution to guide transportation needs towards a long-term goal of all-weather road facilities. This option included a combination of systems based on a variety of limitations and needs. As a result of this option, a long-range policy for remote native communities was devised. Specific and supplementary recommendations were put forth in an attempt to strive towards this long-range plan aimed at enhancing socio-economic development of remote native communities through transportation facilities.

Chapter VIII

CONCLUSION

In essence, the intent of this thesis was to determine the effect transportation linkages have on the socio-economic viability of native communities in Northern Manitoba. As an informative study, this thesis endeavored to shed light on the concerns and needs for improved transportation linkages to remote Northern Manitoba native communities.

From the outset of this thesis an attempt was made to answer the perceived impacts of an all-weather road on a native community. These beliefs held by the author were to a large extent confirmed, as a reduction in the cost of living and isolation along with increased mobility occured. As well, more employment opportunities were created with the advent of a road. However, in the case of more abundant economic opportunities, the perceptions held were refuted to an extent as the findings indicated that other programs, in addition to a road, are needed to enhance economic opportunities within these native communities. Despite this, the thesis reaffirmed that the quality of life in these communities was enhanced greatly, although for mostly social reasons. In the case of a deterioration of native culture, it was shown that other factors have contributed to its decline

and a road was not viewed as being detrimental in this matter. An increase in social problems evident with a road were confirmed in the contents of this thesis.

Other perceived questions outlined at the start of this thesis were refuted to an extent. For instance, it was shown that federal-provincial jurisdictional problems in administering a transportation policy were not as great as was initially perceived. For the matter of a pattern of disjointed incrementalism in provincial transportation policy, the thesis proved that while this exists somewhat, it would be more appropriate to label the problem as piecemeal. However, present government policy while having some positive aspects, was revealed in the findings throughout this thesis not to be the best means in developing socio-economic viability of native communities.

In answering these questions, the compilation of this thesis followed a a number of methods. Firstly, an extensive literature review was conducted in order to establish the socio-economic background of northern native communities. As well, past practices and patterns in providing transportation services, were discussed to determine how remote native communities have been affected. The review of the literature provided the setting that identified the prevailing transportation issues concerning these communities. Proceeding from this point, a case study approach was utilized in order to compare and contrast socio-economic devel-

opment between all-weather road and remote communities. From a hierarchy of communities, realizations and perceptions on how all-weather roads affected or would affect a community were disclosed. Predicated upon past material and primary research, recommendations were outlined regarding the most appropriate course(s) of action to follow. These actions were formulated with the intent of enhancing the quality of life experienced in remote native communities.

The findings of this thesis revealed that the fortunes of Manitoba native communities, from the formation of settlements, have been tied into senior government's transportation policies. Historically, there has been an intimate relationship between native settlements and transportation linkages as settlements originated, in part, due to the nature of past economic activities. However, native communities subsequently lost their importance as modern forms of transportation by-passed them. As a result of this neglect, it is government's duty to provide these communities with the needed transportation linkages. Hence, government has an obligation to regard native transportation needs with a higher priority due to past omissions.

Based on the findings of this thesis, it was shown that various transportation policies and programs put in place by senior governments have had a major influence on the socio-economic development of Northern Manitoba native communities. These impacts were reaffirmed during the field

research, where it was possible to evaluate the effects of a community's socio-economic development due to the various transportation policies and programs mentioned above. Remote communities' perceptions for the most part were established to be highly correlated with the experiences of all-weather road communities on how road access affects socio-economic development. The most common difference between these two categories of communities was the fact that remote communities were more optimistic in their hopes for improved economic development. But, when commenting on their present transportation network, remote communities assessed their system as inadequate. These perceptions and experiences correspond immensely to past material on the topic. The major deviation occurs when the permanence of native communities was found to be unaffected by all-weather road access, which is contrary to some past material.

The thesis is based on the premise that native communities are permanent entities, and actions are formulated accordingly. However, piece-meal policy decisions by the senior governments have produced inadequate transportation requirements and facilities to a majority of northern native communities. This has resulted in an undefined "vision" which could lead to an overall strategy. Therefore, a different approach and comprehensive policy, co-ordinated with the communities involved, is needed for native transportation if remote communities' best interests are to be reflected.

However, depending on which viewpoint is considered, a problem arises as to what adequate transportation entails. From the communities' standpoint the system is inadequate, but on the other hand the government views the system as adequate. Herein lies a "grey area" in transport provision. In order to diminish this "grey area", scenarios were constructed to evaluate proposed sets of actions. These alternatives were offered in order to select the "optimal" solution for this issue. Therefore, actions proposed reflected needs and limitations of the various groups involved.

As a result of the ad-hoc nature of past and present policies and programs concerning native transportation, a long-range comprehensive native transportation policy was devised. This was deemed to be the best means for addressing the problem. Under this policy, a future direction for northern native communities was espoused, leading towards a long-range goal of all-weather roads. A set of guidelines for transportation requirements for the different remote communities are a part of this policy, along with the various impacts a community would experience with a road. These components make the policy pro-active, instead of reactive. Specific recommendations were then detailed which were aimed at providing short-term objectives to create a more efficient transportation system for various native communities, leading towards the long-range goal.

What the existing policies and future actions mean, are that due to the permanent nature of native communities, the present transportation system is inadequate for a majority of communities. It is realized that government has constraints and limitations, however, an attempt has to be made to increase the efficiency and adequacy of the transportation systems in these remote communities. Therefore, both parties were found to benefit from the proposed actions.

In bringing this subject to the forefront, attention can be focused on the need for a comprehensive policy concerning transportation linkages to remote northern communities, which is undefined at the present time. As well, on a broader scale the thesis could be used as a basis for further research in this area.

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APPENDIX A

norOntair

In 1969, Georgian Bay Airways asked for subsidies to continue its intra-regional service in Northern Ontario, but they were not granted. As a result, the Ontario Government conducted a survey in 1971 and found that demand was there but is was not being met, as there were numerous shortcomings in private services. The provincial government then acted as a developer of air services, which was operated by White River Air Services -- an existing carrier. This carrier was re-named norOntair. Ontario realized that the air service would originally not cover costs. NorOntair has been operating for 10 years without a profit and it still receives government backing. In 1975, the system was extended from North-Eastern Ontario to include North-Western Ontario. The Province leases aircraft to a bidder for $1/year/aircraft and assumes some operating costs. As a result, there is a 40% difference between norOntair's fares and Austin Airways and other private carriers.[160]

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[160] Information for this section was taken from Canada, CTC, THE ADEQUACY OF AIR SERVICES IN NORTHERN AND REMOTE AREAS, FINAL REPORT, (Ottawa: ATC, 1985), p. 85.

APPENDIX B

Northern Manitoba Transportation Policies And Programs

General Transport Policies

INITIATED BY	NAME	DESCRIPTION
Federal Government	National Transportation Act (1967)	-Aimed at providing economic, efficient and adequate transport facilities at the lowest cost. Used as an instrument of national policy.
Federal Government	National Transportation Policy (1975- not formerly adopted)	-Four contexts in which transport policy was to be developed in order to use transport as an instrument of national policy. Remote areas incl.

Air Transport Policies

INITIATED BY	NAME	DESCRIPTION
Federal Government	Federal Air Policy (1966)	-Offered preferential treatment to the five regional carriers to operate where essential and uneconomical services existed.
Province of Manitoba	Provincial Air Policy (1968)	-To provide year-round air transport to all northern communities with a population of 100 or more without all-weather road access.
Federal Government	New Domestic Air Policy (1984- proposal)	-A demarcation line across Canada where regulation would remain north of the line to ensure a level of protection
Federal Government	Freedom To Move (1985)	-Placed more emphasis on competitive forces. Deregulation.

Surface Transport Policies

INITIATED BY	NAME	DESCRIPTION
Federal Government	Trans-Canada Highway Act (1949)	-For the development of national unity.

Federal Government	Roads To Resources (1958)	-Program which provided 50% federal funding up to $75 million to all provinces. Designed solely to open up northern resource areas.
Province of Manitoba	Concept of Feeder Highways (1960's)	-System of feeder highways that would best suit the needs of Northern Manitobans.
Province of Manitoba	Winter Road Program (1971)	-Aimed at serving the socio-economic and re-supply needs of remote native communities in the most efficient manner. Cost shared (50-50) with Federal Government.

Comprehensive Programs

INITIATED BY	NAME	DESCRIPTION
DREE and Northern Affairs	General Development Agreement (1974)	-Encouraged socio-economic development in Northern Manitoba.
DREE and Northern Affairs	Manitoba Northlands Agreement (1974-1982)	-Focused on human development and community services; resources and community economic development; area transportation and community services; and planning and implementation.
DRIE and Northern Affairs	Northern Development Agreement (1982-1989)	-Like the Manitoba Northlands, the N.D.A. is the continuation of the long-term northern development effort. Greater emphasis on local economic initiatives.
DRIE and Northern Affairs	Subsidiary Agreement on Transportation Development (1982-1989)	-To invest in facilities and services which will promote trade and industry to encourage economic development. Also to enhance transport development in Manitoba.

Other Policies Affecting Transportation

INITIATED BY	NAME	DESCRIPTION
Province of Manitoba	Growth Centers	-Movement of people into designated areas. Government then would be able to provide better services for the inhabitants.
Province of Manitoba	Stay Option	-A person would have the freedom to choose where to live and what activity to engage in.
Manitoba Telephone System	Provision of Adequate Communications (1972)	-First priority to provide at least radio-telephone service to all communities with more than 50 people.

APPENDIX C

Standardization of Airstrips

The ATC in its report on THE ADEQUACY OF AIR SERVICES TO NORTHERN AND REMOTE AREAS received a recommendation for air facility standardization from Air Creebec[161] to minimize conflict between senior levels of government. Air Creebec recommendations consisted of:

- 3,500 foot by 100 foot hard packed surface runway
- runway lighting
- cement parking (2,000 square feet)
- non-directional beacon (NDB), range 50 nautical miles
- weather reporting facilities
- VHF radio communications
- equipment for airstrip maintenance
- airstrip and parking fenced in
- fueling facilities

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[161] IBID.

APPENDIX D

Questionnaire

GENERAL QUESTIONS

1) Has the provision of an all-weather road led to the enhancement of socio-economic development in the community?

2) What benefits were produced with the provision of the all-weather road? ie.- increased job opportunities
   - other areas accessible for employment opportunities
   - lower transport costs resulting in lower cost of living
   - reduced isolation
   - increased mobility, year round access
   - benefit from wider social and economic services of regional centers
   - increase in social contacts
   - new areas opened up to forestry, fishing, trapping and tourism

3) Did the provision of the all-weather road take into consideration the local needs or was it thrust upon the the community without community imput?
   ie.- was it co-ordinated with internal transport
   - did it take into consideration the redistributive effects
   - were the positive and negative effects weighed

4) Was the provision of the all-weather road seen as the answer to enhancing the socio-economic development and needs of the community, or was it realized as only one step in the over-all picture of regional development?

5) If economic development was not enhanced substantially, were the indirect benefits (reduced cost of living etc.) worth the costs (loss of culture etc.)?

6) Is access to the regional centers necessary for socio-economic development?

7) How has the all-weather road affected your lifestyle?
ie.- habits
- hunting, fishing and trapping
- recreation
- marriage (out of community)
- schooling (post-secondary education)
- social contacts with other communities
- political actions (more conferences with other communities)

8) Do you view tourists (external intrusions) as having a positive or negative impact on the community?

9) What costs were associated with the provision of the all-weather road? ie.- detrimental effect on lifestyle
- cultural deterioration
- higher costs of operating equipment
- loss of traditional activities
- control of community lost
- stress, tension and loss of identity experienced
- increased alcohol/drug abuse
- increased crime
- increased migration
- increased intrusion with the outside world
- increased welfare

10) Over-all, is the all-weather road viewed as a positive or negative influence?

11) Are other types of infrastructure (social) deemed more important than physical infrastructure?
ie.- upgrade hydro network
- upgrade sewer and water
- provide recreation facilities, schools, housing and medical services
- provide adequate communication facilities

12) What type of government policy would you like to see instituted concerning transportation?

13) What can be done to learn from the mistakes of the past (ie. how can remote communities prepare for the provision of all-weather surface access in the future) to lessen negative impacts?

QUESTIONS FOR REMOTE COMMUNITIES

14) Is the current transportation network to your community sufficient or does the government have to take more action in providing the necessary transportation required?

15) Is the provision of winter roads to remote communities adequate and sufficient in reducing the cost of living and increasing mobility?

16) Can passenger travel be expected to utilize the winter road network or is it limited to air transportation?

17) What, realistically, can an isolated community expect in the form of transportation facilities? Is it enough for an isolated community to have only one mode of transport (airstrips) or is the cost prohibitive to most residents? Is a subsidy system or reduction of fees and taxes necessary to make the air mode reasonable and adequate?

18) Has the community stagnated due to the lack of an all-weather surface transport link?