

THE UNIVERSITY OF MANITOBA

AN EVALUATION OF THE CANADA-MANITOBA SPECIAL  
ARDA PROGRAM OF ASSISTANCE TO TRAPPERS

by

DOUGLAS G. CABLE

A Practicum

Submitted to the Faculty of Graduate Studies  
In Partial Fulfilment of the Requirements for the  
Degree of Master of Natural Resource Management

Natural Resource Institute

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While many people contributed to the completion of this practicum the author accepts full responsibility for its contents.

## ABSTRACT

The terms of reference of the evaluation were to collect, analyze and present data relating to:

1. The income characteristics of a sample of the primary producers that received Special ARDA assistance;
2. Primary producers' attitudes towards alternate employment, equipment use and care and the problems of primary producers;
3. The additional uses of primary producing transportation equipment and the consequences of the additional utilization;
4. The identification of statistically significant factors affecting primary producers income; and,
5. A discussion of equipment replacement and implications on primary producers' incomes.

Ten sequential steps were used to evaluate the Special ARDA Program of assistance to trappers in Manitoba. They were:

1. Definition of economic terms used;
2. Identification of the variables that were hypothesized to affect trapping income;
3. Development of a questionnaire to collect the socio-economic information relevant to the terms of reference of the evaluation;
4. The use of judgemental and statistical techniques to select a sample of local fur councils that received Special ARDA assistance where personal interviews would be conducted;

5. Pre-testing the questionnaire;
6. Making the proper proctol arrangements prior to the personal interviews;
7. Conducting the personal interviews in the local fur councils that were selected;
8. Organizing and tabulating the information collected from the personal interviews;
9. Analyzing the information collected; and,
10. Discussion of the results of the analysis.

The most important results of the analysis of questionnaire responses and wild fur production statistics were the income characteristics of the trappers sampled. In summary the income results were:

1. The income of the trappers sampled increased since the receipt of Special ARDA assistance;
2. Trappers derive their income from a variety of employment activities. This was necessitated by the fact that the income from trapping does not provide for an adequate standard of living; and,
3. Income in kind is an important component of trapping income.

In connection with income in the most significant social finding of the evaluation was that Special ARDA assistance contributed to the harvesting of natural foods and enabled trappers to earn additional income from other activities.

Two other findings that related to the socio-economic aspect of the Special ARDA Program of assistance were:

1. Eighty-seven percent of the trapping equipment granted to the trappers sampled is presently in use. The majority of the trapping equipment granted is being properly stored and cared for. These indicators show a positive attitude by trappers towards equipment use and care; and,
2. The major concern of the trappers interviewed focused upon increasing operating and capital costs and low product prices. The consensus was that trappers are faced with a continuing problem related to a cost-price squeeze.

The socio-economic findings of the evaluation illustrate that trapping forms a vital component of a trappers yearly income. This leads to the conclusion that further efforts should be taken to strengthen the trapping industry. Such efforts should consider the recommendation that a wild fur marketing agency be established.

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## INTRODUCTION

## INTRODUCTION

In May 1975 three graduate students from the Natural Resource Institute, University of Manitoba, were contracted by the Special ARDA Branch, Manitoba Department of Northern Affairs, to conduct an evaluation of assistance to primary producers through the Canada-Manitoba Special ARDA Agreement.<sup>1</sup>

The Natural Resource Institute at the University of Manitoba was approached to conduct the evaluation for two reasons: first, its capacity to conduct applied research; and, second, the independent nature of the Natural Resource Institute.

Financial Support for the evaluation came from two sources: The Student Temporary Employment Program (S.T.E.P.) Manitoba Department of Colleges and Universities Affairs and the Special ARDA Branch, Manitoba Department of Northern Affairs. Two of the three students were permitted to use the information collected during the evaluation for the practica. The practicum by Mr. D. Johnston is concerned with the evaluation of Special ARDA assistance to commercial fishermen in the Province of Manitoba. This practicum is concerned with

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<sup>1</sup>For the purposes of this practicum primary producers refers to commercial fishermen and trappers.

the evaluation of Special ARDA assistance to trappers in the Province of Manitoba. Both practica have separate data sets for the individual associations sampled as well as the total sample. These are available at the Natural Resource Institute, University of Manitoba.

The practicum is divided into four chapters. In Chapter I the background information for the evaluation is presented. The background information examines various aspects of the Special ARDA Program, a brief description of the trapping industry and a review of literature pertinent to the socio-economic aspects of trapping. Chapter II contains the procedures that were used to evaluate the Special ARDA Program of assistance. In this chapter emphasis is placed on the variables hypothesized to have the most affect on trapping income, the method of analysis used and the procedure to select the four local fur councils where personal interviews were conducted. Chapter III contains the socio-economic findings and a discussion of the findings of the evaluation. The major findings discussed are the income characteristics of the trappers sampled, the significant factors affecting trapping income and the additional uses and care of the Special ARDA equipment granted to the trappers sampled. Chapter IV contains a summary of the findings of the evaluation, conclusions and recommendations regarding areas of further re-

search and areas in which future policy development and programs expenditures are needed.

**CHAPTER I**

**BACKGROUND INFORMATION**

## CHAPTER I

### BACKGROUND INFORMATION

#### INTRODUCTION

Chapter I provides the background information for the evaluation of the Special ARDA Program of assistance to trappers in Manitoba. The information was compiled by an examination of the following subject areas:

1. The historical context of the Special ARDA Agreement;
2. The Special ARDA Agreement;
3. The rationale for the evaluation;
4. The terms of reference of the evaluation;
5. The trapping industry in Manitoba; and,
6. A review of literature on the trapping industry.

#### The Historical Context of the Special ARDA Agreement

The Special ARDA Program developed from the Agricultural Rehabilitation and Development Act (ARDA). The Agricultural Rehabilitation and Development Act (1961) of the Government of Canada enabled the establishment of federal-provincial agreements relating to alternate land use, soil and water conservation, rural development and research aimed primarily at alleviating the serious national problem of

low income in rural areas. Under the federal-provincial agreements of the ARDA legislation both levels of government have various responsibilities.

It is the responsibility of the provinces to initiate projects and programs, implement them, and pay approximately half the costs involved. The federal government, in addition to sharing costs, establishes in consultation with the provinces the main objectives of the program and sets operating policy and criteria under which programs are initiated. The federal government may provide some forms of technical assistance when required and may initiate and carry out research. An important, although less clearly defined role of the federal ARDA Administration is to function as a clearing house for information, both technical and general, and to work toward improving co-ordination of all agencies concerned with rural social and economic development and resource use. This applies particularly with respect to federal agencies, but in practice many scores of agencies--federal, provincial, private and university--have become involved in the ARDA program, and thus to a greater degree with each other.<sup>2</sup>

Since 1961 most provinces in Canada have established a provincial ARDA office to "administer the provincial program and maintain working relations with the federal ARDA Administration".<sup>3</sup> In Manitoba, the Prairie Farm Rehabilit-

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<sup>2</sup>Federal-Provincial Rural Development Agreement 1965-70, Department of Forestry and Rural Development, Ottawa, 1967, p. 3.

<sup>3</sup>Ibid.

ation Administration has functioned to some degree as the operating arm of the federal ARDA Administration.

The federal-provincial nature and social and economic development focus of the ARDA legislation made detailed federal-provincial agreement on operating procedures essential. The first general agreement between the federal government and the provinces established the operating procedures for implementation of the Agricultural Rehabilitation and Development Act. The first general agreement terminated on March 31, 1965. A second federal-provincial ARDA Agreement covered the period April 1, 1965 to March 31, 1970.

Under the second agreement several important differences were embodied in the ARDA concept of rural social and economic development and conservation of natural resources. In brief, the differences were as follows:

1. Duration of five years instead of two and a half years.
2. Maximum federal expenditures of \$25 million a year, instead of \$20 million a year, making a total federal contribution of \$125 million instead of \$50 million.
3. Increased emphasis on programs to assist rural people to re-establish in new employment or re-settle in areas where opportunity may be better.
4. The establishment of a special Fund for Rural Economic Development by the federal government whereby a maximum of \$50 million, in addition to the \$125 million total of annual federal

contributions, may be spent on major projects that are part of comprehensive development programs in areas that are especially designated. (see Appendix 1).

5. A new emphasis on the alleviation of poverty in rural areas by means of a global approach to resource development, embracing all the resources of disadvantaged rural areas to provide new income and employment opportunities and raise standards of living.
6. A new system for the administration of joint ARDA projects, whereby the federal government and the provinces agree jointly on an entire program for a year or more, instead of a process in which the province submits each project individually for federal examination.
7. In provinces that desire it, the inclusion of Indian lands and Indian people within the purview of the ARDA program.
8. Greater attention paid to the training of Rural Development Officers, and to the provision of facilities required to carry out such training.<sup>4</sup>

In May of 1971 a third general ARDA Agreement was signed between the federal government and the provinces. In the interim between the signing of the second and third general ARDA Agreements, however, the federal and provincial governments recognized that in certain rural areas of Canada where the disadvantaged people include many people of Indian ancestry, special action was required to ensure that these people were able to benefit from rural development programs

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<sup>4</sup>Ibid., p. 4.

and projects. One example of this recognition came from Mr. J. Marchand, former Minister of the Department of Regional Economic Expansion. Speaking at the Standing Committee on Regional Development Mr. Marchand noted that people of Indian ancestry ". . . have special problems and we know that we can not deal with these problems under the programs as they now exist"<sup>5</sup>. The Standing Committee on Regional Development was one means that federal, provincial and civic authorities as well as public interest groups such as the native associations of Manitoba could present and discuss their concerns about regional social and economic disparities. In response to the recognition of regional social and economic disparities the federal and provincial governments and the native associations of the provinces designed and implemented several programs and projects that would create, "economic expansion and social adjustment in areas requiring special measures to improve opportunities for productive employment and access to the opportunities"<sup>6</sup>. One special federal-provincial agreement that was implemented was the Special ARDA Program for Manitoba.

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<sup>5</sup>House of Commons, Issue No. 1, 28 Parliament, 1970-1971, Standing Committee On Regional Development, Mr. Joseph Guay, Chairman. Wednesday, April 15, 1970, p. 3:55.

<sup>6</sup>Department of Regional Economic Expansion, general information pamphlet, No date, p. 1.

The Special ARDA Agreement

The Special Agreement entered into under Agricultural and Rural Development Act was signed by the government of Canada, represented by the Department of Regional Economic Expansion and the government of the Province of Manitoba on July 20, 1971. The objective of the Special ARDA Agreement was:

To facilitate the economic development and social adjustment of disadvantaged people in rural areas, particularly those of Indian ancestry who previously had little or no access to regular earning and employment opportunities.<sup>7</sup>

To achieve this objective five program areas were identified in the Special ARDA Agreement (see Appendix 2). Briefly, they were:

1. The provision of services and facilities to reduce the isolation of remote rural communities;
2. The establishment or improvement of community recreation facilities;
3. The provision of manpower counselling and training currently not provided by other federal-provincial programs;

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<sup>7</sup>Special ARDA Agreement, General Operating Guidelines and Administrative Procedures, Part 1 General Operating Guidelines, p. 1.

4. The development of viable supplementary or alternative primary producer activities; and,
5. The establishment, expansion or modernization of any commercial undertaking.

The evaluation of the Special ARDA Program of assistance focused upon the fourth project. The purpose of this project was to:

help improve in a specific rural area the general income level of people engaged in marginal or sub-marginal primary producing activities through the provision of assistance to groups or associations. Examples of such projects include farm consolidation or enlargement, improvement or expansion of pastures, improvement of timber stands, and purchase of equipment required to improve fishing, forestry and trapping activities.<sup>8</sup>

Through this project eligible groups of Manitoba's primary producers were provided assistance in the form of commercial fishing and trapping equipment grants.

The initial administrative guidelines to the Special ARDA Agreement state that primary producer groups in Manitoba are eligible to receive assistance providing certain criteria and conditions were met (see Appendix 3). In brief, the criteria that must be met are:

1. That  $\frac{2}{3}$  of the group to be assisted must be of

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<sup>8</sup>Ibid., p. 3.

Indian ancestry each of whom have earned less than \$2,500 in the previous two years;

2. The group may be required to contribute an equity equal to 20% of the assistance provided; and,
3. The assistance provided must be such that the income of the group will be increased.

Since the implementation of the Special ARDA Program the first and second criteria have been amended. Currently, the criteria is that a majority of the group to be assisted must be of Indian ancestry and earn a low income. The terms "majority" and low income are not specified. For the second criteria the amount of group equity has been reduced from 20% to 10%.

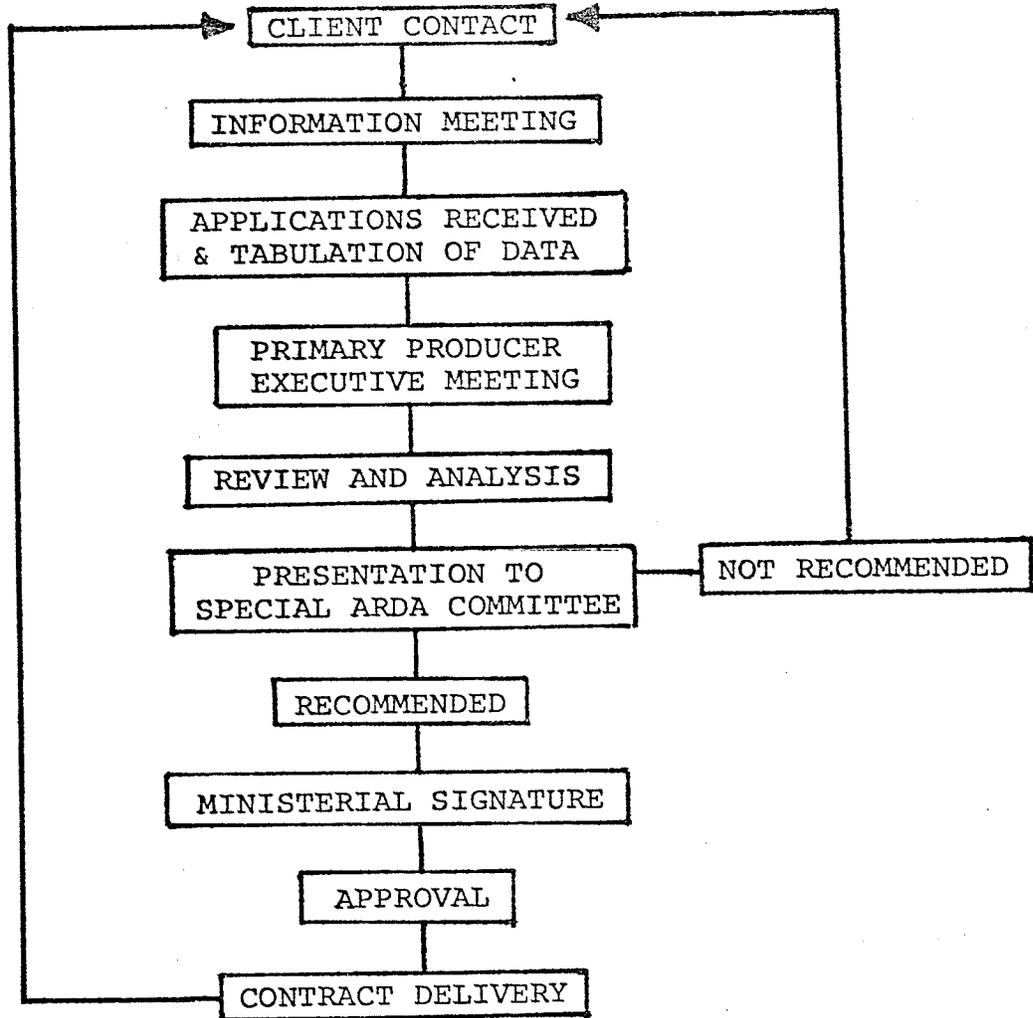
During the first year and a half of the Special ARDA Program a small staff of federal and provincial employees were responsible for the delivery of the program. In January, 1973 the provincial Department of Northern Affairs, Special ARDA Branch assumed responsibility for the delivery of the program. The delivery of the Special ARDA Program involves several procedures (see Figure 1). The procedures are as follows:<sup>9</sup>

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<sup>9</sup>A. G. Lupton and D. R. Johnston. An Evaluation of Assistance Provided to Fishermen and Trappers Under the Terms and Conditions of the Canada-Manitoba Special ARDA Agreement, Winnipeg: Manitoba Department of Northern Affairs, 1974, p. 10-16.

FIGURE 1

SPECIAL ARDA PROGRAM DELIVERY FLOW CHART



SOURCE: A. G. Lupton and D. R. Johnston, op. cit., p. 17.

(1) Client Contact

The first step in the program delivery is client contact. This usually takes place through a letter or telephone call from primary producers requesting information about the Special ARDA Program. As a result of this request, a provincial staff member makes arrangement for an information meeting usually held in the community.

(2) Information Meeting

All information meetings are well advertised on the local level and are usually attended by all interested parties. Generally, the following areas are discussed:

- a) purpose of the Special ARDA Program,
- b) Explanation of how Special ARDA works in conjunction with other Federal and Provincial programs.

It is pointed out that Special ARDA is assisting current programs and is not meant to replace ongoing programs.

- c) The Special ARDA Committee's members and its role is explained,
- d) explanation of the Special ARDA Program rules and the areas where assistance is available with respect to primary producers,
- e) explanation of the role of the primary producer executive.

This executive may be in existence prior to this information meeting, but if this is not the case, one is elected. From this point onward, the Special ARDA staff work with these elected representatives in the process of program delivery.

In concluding the information meeting, questions are answered and application forms are left with interested parties.

(3) Applications Received and Tabulation of Data

The applications are received in Winnipeg, recorded and tabulation of data takes place. Aspects reviewed are eligibility factors, production records, social profile, i.e. age, dependents, income, etc., and equipment owned and requested. This information is prepared and put into a form presentable for the primary producer executive meeting.

(4) Primary Producer Executive Meeting

The executive group is usually comprised of 3 - 7 members representing their respective area. The members are responsible for the selection of individuals to receive grant assistance, and the type and amounts of equipment to be provided. This is done within the guidelines under the Special ARDA Program.

In conjunction with the executive, personnel from various government departments and other organizations involved in primary producing activities, assist in the decision-making process at this meeting. The representatives attending these meetings are usually from:

- a) Department of Northern Affairs,
- b) Department of Mines, Resources and Environmental Management,
- c) Department of Indian Affairs & Northern Development,
- d) Department of Co-operative Development,
- e) Manitoba Registered Trappers Association,
- f) Manitoba Agricultural Credit Corporation,
- g) Local Fish Agencies.

Contribution from this group mainly relate to production records, licencing procedures, resource base data, viability, social implications

and other related factors. Through this consultation process, recommendations are made to obtain an equitable distribution of equipment to meet the needs of each individual.

Following the individual recommendations made by the executive, Special ARDA staff explain the procedures to follow should a grant be approved. The areas covered are contract description, purchasing of equipment, invoice handling and accounting.

(5) Review and Analysis

The Special ARDA analyst review the recommendations obtained from the primary producer executive meeting. An economic and social analysis is conducted and put into a form for presentation to the Special ARDA Committee. At this stage, changes may be made but generally the recommendations made by the primary producer executive are adhered to. A proposed contract which details the terms and conditions of the grant (termed Schedule A) and the project review and analysis documents are then submitted to the Special ARDA Committee.

(6) Presentation to Special ARDA Committee

This Committee is comprised of 10 members from the following organizations:

- a) Manitoba Indian Brotherhood (2 representatives),
- b) Manitoba Metis Federation (2 representatives),
- c) Northern Association of Community Councils (1 representative),
- d) Federal Government (3 representatives, Departments of Regional Economic Expansion, Indian Affairs and Northern Development, and Manpower and Immigration).
- e) Provincial Government (2 representatives from Department of Northern Affairs)

The Special ARDA Committee reviews the analysis document and recommendation and the proposed primary producer contract and Schedule A. A decision is made in regard to recommendation or non-recommendation on the primary producer grant. Should the latter occur, the proposal is returned and a response is made to the local executive. If the proposal is recommended, it is forwarded for ministerial approval.

(7) Ministerial Signatures

If the proposed contract is recommended by the Special ARDA Committee, authorization signatures by the Ministers or their representatives of the Federal Department of Regional Economic Expansion and the Provincial Department of Northern Affairs are made.

(8) Contract Delivery

Upon approval by the appropriate Ministers, the contract is finalized between the Provincial Department of Northern Affairs and the primary producer group. Arrangements are made with the primary producer executive relative to the purchasing of the equipment outlined in the Schedule A.

For the period July 20, 1971 to March 31, 1975 total expenditures for the project that offered primary producers the right to purchase equipment was \$2,745,657. Of the total assistance authorized commercial fishermen received equipment valued at \$1,309,782, and trappers received equipment valued at \$1,435,875. The assistance to trappers was distributed among 1,257 trappers belonging to fifty-two different trapper groups. The average equipment grant was \$1,142 per trapper.

The types of equipment that eligible trappers received included snowmobiles, outboard motors, canoes, conibear and leghold traps and miscellaneous trapping equipment such as tents, bedrolls, axes and power saws. Some trappers received assistance to make repairs to existing trapping equipment.

### Rationale for the Evaluation

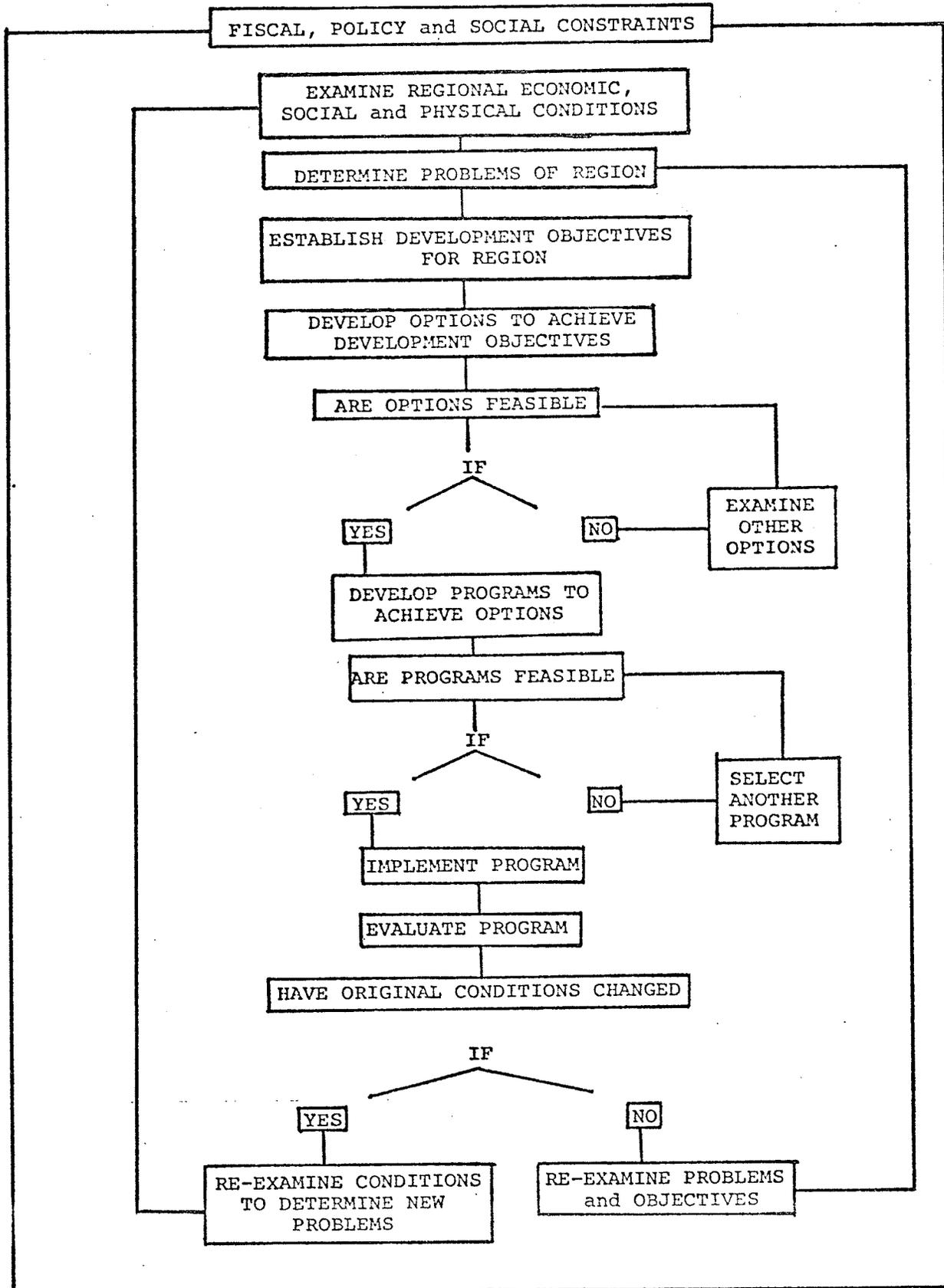
Evaluations are an intergral component of the resource planning and management process (see Figure 2). Figure 2 illustrates the role of evaluations in the resource planning and management process. As shown by Figure 2 evaluations are undertaken to provide resource planners and managers with information on the social, economic and physical impacts of development programs. By collecting and analyzing the social, economic and physical data of a region the impacts of the particular development program(s) are known. As Dr. James MacMillan, a professor of Agricultural Economics at the University of Manitoba who has evaluated many aspects of the Manitoba Interlake development program, has noted, "planning successes and failures can not be sorted out without objective data from independent evaluations."<sup>10</sup> In turn, objec-

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<sup>10</sup> Dr. James MacMillan, Department of Agricultural Economics, University of Manitoba, personal interview, Winnipeg, June 16, 1975.

FIGURE 2

THE RESOURCE PLANNING AND MANAGEMENT PROCESS



DEVELOPED BY: Dr. A. A. Lupton, Laurentian University, Sudbury, Ontario.

tive data assists program administrators in making appropriate decisions regarding a programs future implementation and effectiveness.

The evaluation of the Special ARDA Program of assistance was conducted to collect and analyze specific socio-economic data on commercial fishermen and trappers.<sup>11</sup> There were three reasons why such data was requested. First, the socio-economic data would provide a basis for administrative personnel of the Special ARDA Program to decide upon the success or true effects of the programs objectives. Second, by deciding upon the true effects of the program the most appropriate areas for future programming and expenditures can be identified. This point is of significance to the administrators of the Special ARDA Program for two reasons. First, a decision was made to extend the original termination date (March 31, 1975) of the program to March 31, 1977. Second, since monetary funds for the Special ARDA Program are limited it is important that the primary producers who meet the eligibility criteria receive the type of assistance which benefits them the most. Third, through information

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<sup>11</sup> A previous evaluation was requested by the Special ARDA Branch, Manitoba. Department of Northern Affairs in 1974. The terms of reference and findings of this evaluation are present in the literature review section of this chapter.

meetings with the primary producers' groups Special ARDA administrators could inform commercial fishermen and trappers of the impacts of the Special ARDA Program. Also, Special ARDA administrators could receive "feedback" from the primary producers regarding areas for future policy development and program expenditures.

It is important to note that evaluations are only one component of the resource planning and management process. While evaluations provide information to assist program administrators the final decision on whether to begin a new program or continue an existing program rests with the elected political representatives; for they are the persons who are ultimately responsible to the people affected by a program.

#### The Terms of Reference of the Evaluation

The Special ARDA Branch, Manitoba Department of Northern Affairs which requested the evaluation, wanted an independent organization, such as the Natural Resource Institute, to conduct the evaluation. The terms of reference of the evaluation were to collect, analyze and present data relating to:

1. The income characteristics of a sample of the primary producers that received Special ARDA assistance;

2. Primary producers' attitudes towards alternate employment, equipment use and care and the problems of primary producers;
3. The additional uses of primary producing transportation equipment and the consequences of the additional utilization;
4. The identification of statistically significant factors affecting commercial fishing and trapping income; and,
5. A discussion of equipment replacement and implications on primary producers' incomes.

By requesting The Natural Resource Institute to conduct the evaluation, the three graduate students were able to obtain an educational and training experience through contact with primary producers and personnel currently employed in the field of resource management. Also, the Special ARDA Branch, Manitoba Department of Northern Affairs, allowed two of the students to use the information collected during the evaluation for their practica.

#### Manitoba's Trapping Industry

The following description of the trapping industry in Manitoba provides an insight into the social and economic components of this industry. The insights provided are by no means exhaustive. Rather, their purpose is to provide an overall view of the trapping industry in Manitoba.

A. Profile of A Trapper

The first task in the description of the trapping industry is to define those people called "trappers". Trappers can be divided into two categories, active and occasional, based on two elements: time spent trapping and income derived from trapping. One definition which considers only income, defines an active trapper as, "any person who gains \$200 or more from trapping wild fur in a season."<sup>12</sup> The Manitoba Department of Mines, Resources and Environment Management (M.R.E.M.) defines a trapper as anyone who has applied for and received or shares a registered trapline."<sup>13</sup> This definition, however, omits persons who trap "actively" or "occasionally" in open areas.

A definition for trappers must also consider the seasonal nature of trapping. The trapping season varies for the different species of animals trapped and in the northern and southern portions of the province (see Appendix 4). In general, however, the trapping season begins in mid October and ends in mid May. As trapping does not provide year-round

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<sup>12</sup>B. Ramsay, The Economic and Social-Cultural Situation of Native Trappers in Northern Manitoba. Unpublished practicum for the Natural Resource Institute, University of Manitoba, 1975, p. 2.

<sup>13</sup>B. Ramsay, op. cit., p. 1-2.

employment, trappers often earn additional income from alternate employment activities such as construction, forest fire fighting and various summer and winter works projects.

As indicated by the preceding discussion a uniform definition for people engaged in the activity of trapping is complicated by several factors. Therefore, in the interest of simplicity and uniformity a trapper is defined as any persons who receives either an open trapping area or a registered trapline permit from the Manitoba Department of Mines, Resources and Environmental Management.<sup>14</sup>

#### B. Trapping Areas

Another aspect of the trapping industry is the differentiation between registered and open trapping areas (see Figure 3). The process by which a trapline becomes registered in an individual's name is as follows:

1. The individual trapper applies for a trapping licence;
2. The individual trapper applies for a registered trapline permit (\$3.00) from the Manitoba Department of Mines, Resources and Environmental Management; if granted,

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<sup>14</sup>In October 1975, the branch of the Manitoba Department of Mines, Resources and Environmental Management responsible for trapping was transferred to the Manitoba Department of Renewable Resources and Transportation Services.

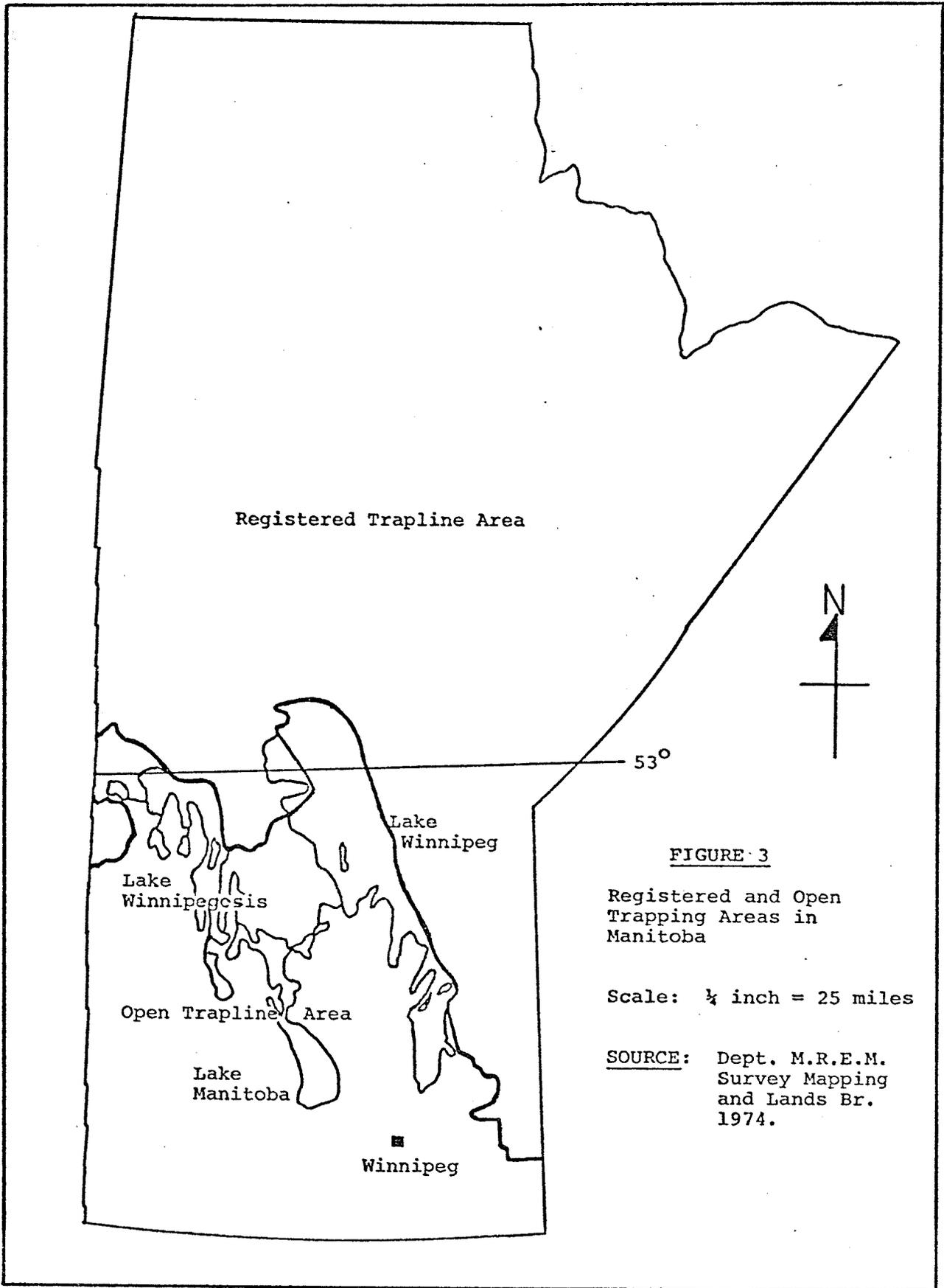


FIGURE 3

Registered and Open  
Trapping Areas in  
Manitoba

Scale:  $\frac{1}{4}$  inch = 25 miles

SOURCE: Dept. M.R.E.M.  
Survey Mapping  
and Lands Br.  
1974.

3. A meeting with an official from the trapper education branch of the Manitoba Department of Mines, Resources and Environmental Management, the local conservation officer, the local fur council and the individual trapper is held to determine the area to be assigned to the individual trapper.

A registered trapline permit means the trapper has been granted, on a yearly basis, the legal right to trap animals in a specified area; he has not been granted the animals per se as they are held "in the right of the Crown." By having a trapline registered in the trapper's name, it reserves an area for him in which no other person may trap. A special case of the registered trapline permit is the community trapline. This is a registered trapline permit which is registered in the name of the community for the use of children, community elders, and the disabled. Those who have registered traplines are required to trap on their own line but under extenuating circumstances, such as extremely harsh climatic conditions during a trapping season, they are allowed to trap on the community trapline. The majority of registered traplines belong to trappers of native ancestry.

Conversely, an open trapping area is an area on which anyone, including those with registered traplines, may trap providing:

1. They obtain an open area trapping licence from

the Manitoba Department of Mines, Resources and Environmental Management (\$2.00); and,

2. They obtain the permission of the landowner if they desire to trap on private property.

In Manitoba there are two areas, the Summerberry Fur Block and the Porcupine Fur Block, that are a mixture of open and registered trapping areas. A special permit is required to trap in these two areas. The price of a registered trapline or open area trapping permit includes membership in the Manitoba Registered Trappers Association if the individual chooses to join the organization.

Those persons residing on treaty Indian Reserves are allowed to trap within the boundaries of the reserve at no charge. They are encouraged to obtain trapping licences, free of charge, to aid conservation officers in updating records on the biological resource base.

#### C. Trappers Organizations

In Manitoba, only one trappers organization, the Manitoba Registered Trappers Association (M.R.T.A.), represents all open area and registered line trappers who hold a trapping licence. The objectives of the Manitoba Registered Trappers Association are fourfold:

1. To maximize the social and economic benefits to

trappers from the optimum development and use of the wild fur resource;

2. To increase net income to trappers from trapping by assisting trappers to get the maximum returns for their fur;
3. To build communication between members of the Manitoba Registered Trappers Association, government and other people involved in the fur industry; and,
4. To identify and examine the concerns of trappers.<sup>15</sup>

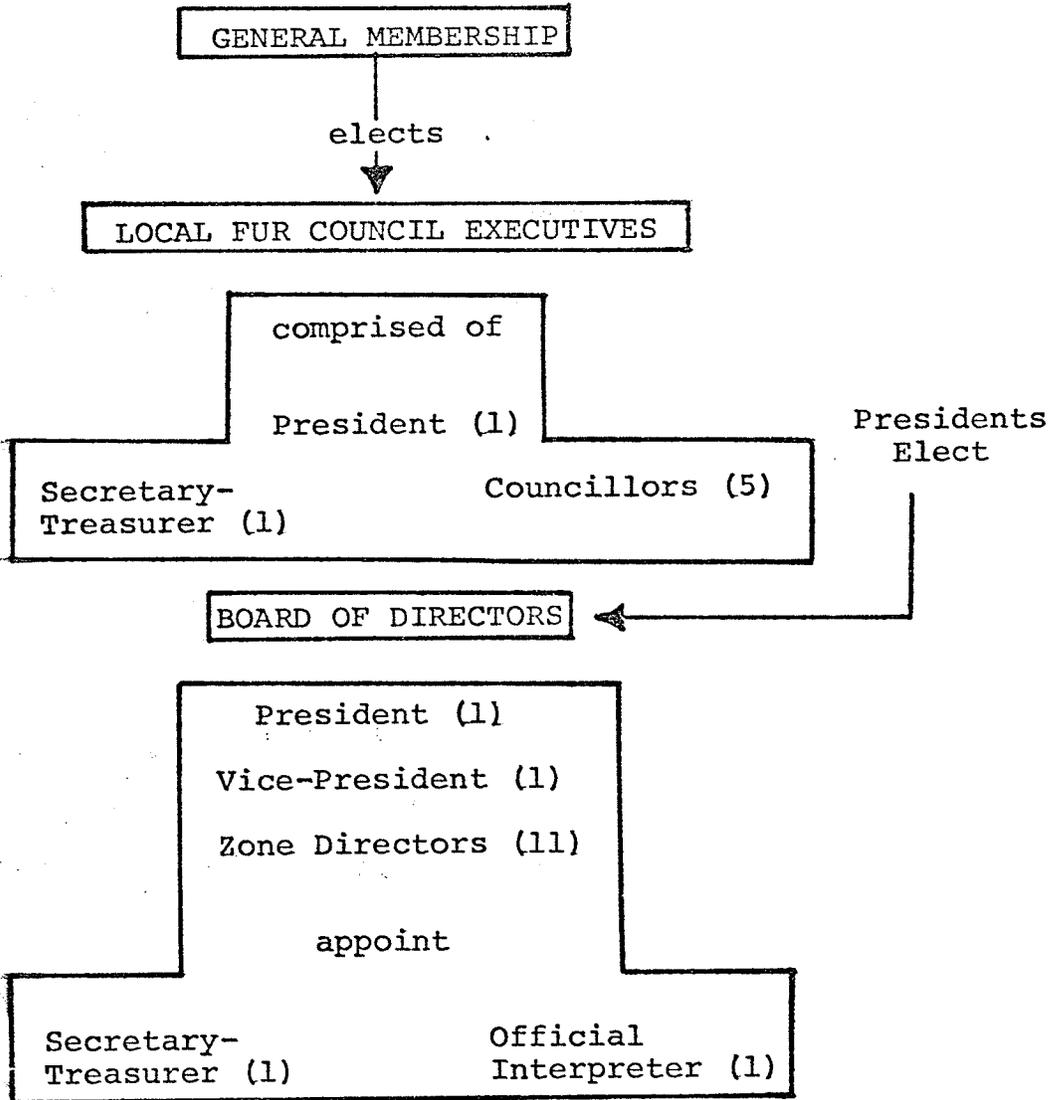
The Manitoba Registered Trappers Association is organized into two different bodies each with various functions (see Figure 4). At the first level are the local fur councils which are found in the open and registered trapline areas of the province. The general membership of each local fur council elects an executive which consists of a president, a secretary-treasurer and five councillors. The local fur councils act as information relay centres. They receive and distribute information originating from the Board of Directors (which is the second level of the association) and the various provincial and federal government agencies involved with the trapping industry. Also, the local fur councils inform these same bodies of issues that are of concern to the general member-

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<sup>15</sup>Personal interview, George Simpson, President, Manitoba Registered Trappers Association, Bowsman, Manitoba, July 8, 1975.

FIGURE 4

THE ORGANIZATION OF THE MANITOBA REGISTERED TRAPPERS ASSOCIATION



SOURCE: Adapted from Manitoba Registered Trappers Association, Annual Convention 1975 published by Manitoba Department of Mines, Resources and Environmental Management, Winnipeg; 1975, pp. 106-118.

ship. Currently, there are fifty-seven local fur councils and over 8,500 persons who are members of the Manitoba Registered Trappers Association.<sup>16</sup>

The second level of the Manitoba Registered Trappers Association, the Board of Directors, is comprised of eleven zone directors. For administrative purposes the Province of Manitoba is divided into trapping zones. Each zone is comprised of several local fur councils. The zone directors, the president and vice-president are elected by the presidents of the local fur councils.<sup>17</sup> The secretary-treasurer and the official interpreter are appointed by the Board of Directors. The function of the Board of Directors is to represent the local fur councils at meetings pertaining to the trapping industry or regional development in general.

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<sup>16</sup>Department of Mines, Resources and Environmental Management, Annual Report, Winnipeg: 1975, p. 147. It is assumed that each person that obtains a trapping licence joins the Manitoba Registered Trappers Association.

<sup>17</sup>The Board of Directors are elected at the annual Manitoba Registered Trappers Association Annual Convention. At the convention, which is open to all trappers, resolutions are presented and debated. Also, various issues, for example, the development of humane trapping methods are discussed by the trappers and the different government departments concerned with the trapping industry.

D. Sale of Furs

As shown by Figure 5, there are a variety of options a trapper can choose from when selling his pelts. One option involves selling directly to the various fur auction houses in or outside of Manitoba. If this option is chosen the trapper may sell his furs to:

1. a Winnipeg fur auction house, for example, Dominion Soudack;
2. The Winnipeg Hudson Bay Company Fur Department;  
or,
3. the Hudson Bay Company auction house in Montreal.

The price his pelts obtain at the auction houses, minus a handling charge, is then returned directly to the trapper. If the auction house decides to send the furs out of the province an export permit is required and a royalty must be paid by the auction house on the pelts exported. The export permit is provided free of charge by the Manitoba Department of Mines, Resources and Environmental Management. The required royalty is added to the auction price of the furs.

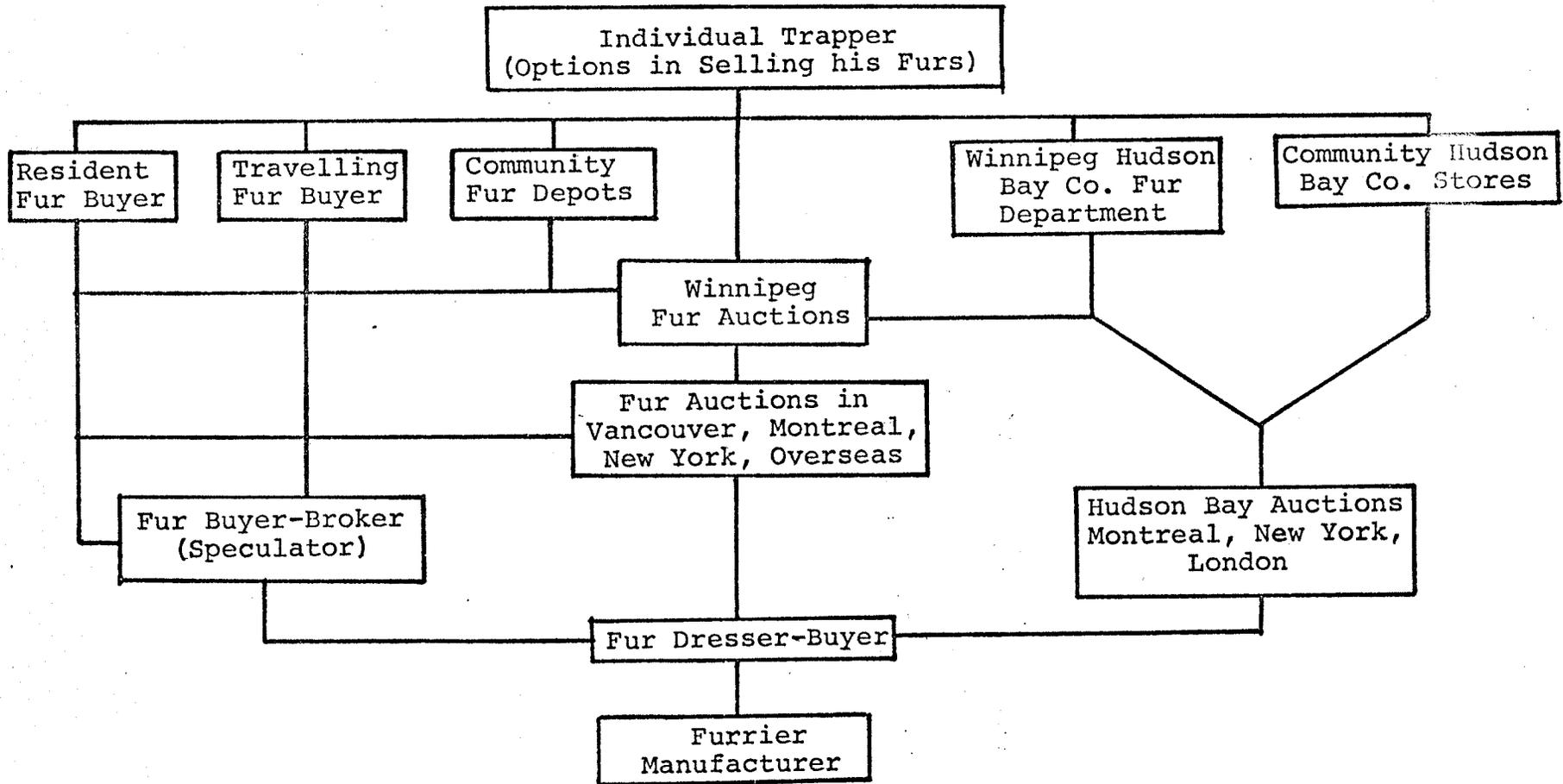
Another option open to the trapper is to sell his pelts to a fur buyer.<sup>18</sup> If this option is selected the trap-

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<sup>18</sup>A fur buyer is a person who is licenced by the province to buy raw furs from the trappers. This includes the various auction houses.

FIGURE 5

THE NORMAL MOVEMENT OF MANITOBA WILD FURS



SOURCE: Adapted from The Manitoba Trappers Guide, Department of Mines, Resources, and Environmental Management, 1972, p. 46.

per may deal directly with either a travelling fur buyer or "free-trader", a resident fur buyer or at community fur depots.<sup>19</sup> The fur buyer dealt with varies widely among communities. One reason for this is that two agencies which buy furs, the Hudson Bay Company and the community fur depots, offer a cash advance of 60% of the estimated value of the pelts.<sup>20</sup> Once the trapper sells his pelts to the fur buyer the fur buyer in turn resells the pelts to the various national or international auction houses or other fur buyers.

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<sup>19</sup>Travelling fur buyers or "free-traders" are primarily speculators of the fur market. They buy furs for cash with the hopes of reselling their furs at a favourable market price at the auction house.

A resident fur buyer generally operates a local business and buys furs as part of that business. An example of a resident fur buyer is the local Hudson Bay Company Store. Resident fur buyers resell their purchases to the various auction houses. If the resident fur buyer decides to sell his furs outside the province he must obtain an export permit and pay the required royalty.

Community fur depots were established under the Wild Fur Program. Their purpose was to collect furs from local trappers and improve the marketing mechanism between the producer and purchaser, thus hopefully increasing the returns from the sale of furs to the trapper. Community fur depots were constructed in Nelson House, Red Sucker Lake and Pukatawagan.

<sup>20</sup>This cash advance is similar to the traditional initial "grubstake". A cash advance allows the trapper to purchase the needed supplies to return to his trapline during the trapping season. The initial "grubstake" is the credit given to the trapper to purchase needed supplies at the beginning of the trapping season.

After the auction houses and fur buyers have sold the semi-processed furs they are further transformed into articles of clothing by fur manufacturers and then distributed to the many national and international fur retailers for consumer consumption.

E. Wild Fur Market

The wild fur market, in combination with the biological resource base, are the primary factors influencing a trappers income.<sup>21</sup> Wild fur, which is considered a luxury fashion commodity, is traded on an international market and is thus susceptible to world economic conditions. Demand is extremely unstable and fur prices fluctuate widely on a year to year and even a month to month basis. The major buyers in market are the Americans, the Europeans and the Japanese. Since the pelt prices are established in an international market and Manitoba production is such a small part of the total, the Manitoba trapper has no control over the price he receives for his pelt.<sup>22</sup> As a result, the trapper receives extremely

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<sup>21</sup>The effects of the biological resource base on trapping income are discussed in Appendix 7.

<sup>22</sup>Manitoba to 1980. Report of the Commission on Targets for Economic Development. R. E. Grose, Chairman, Winnipeg, Manitoba, 1969, p. 98.

poor returns when there is an excess supply and low demand for furs.

At the national level the wild fur market has affected trappers income in a different manner. Annual wild fur production statistics for Manitoba indicate that beaver, muskrat and mink are the major species of fur bearers trapped. An analysis of the average fur prices for 1972 to 1975 indicated that during this time period, bear, beaver, ermine, mink and muskrat decreased in price. Cross fox, red fox, otter and squirrel prices remained relatively constant while the average price of fisher, lynx, marten and timber wolf increased (see Table I). Further, while the average prices paid for beaver, muskrat and mink has decreased and fluctuated for the other fur bearers they have consistently lagged behind increases in the cost of living as represented by the consumer price index. The net result of international instability and fluctuating average prices for furs is that the trapper, like other primary producers, has become caught in a cost-price squeeze.<sup>23</sup>

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<sup>23</sup>The cost-price squeeze situation is discussed in Chapter III, in the section on the problems identified by the trappers sampled.

Table 1. Trends of the Auction Price of Wild Furs, 1968-1975

Fur Bearer Species	Long (L) or Short (S) Haired	Average Price Per Pelt (\$)								OVER PAST 3 YEARS Increase (I) Relatively Stable (R) Decrease (D)
		Y E A R <sup>1</sup>								
		1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	Mean	1974-75	
Bear	L	26.50	33.00	35.00	25.00	74.19	50.55	40.71	29.97	D
Beaver	S	22.00	19.00	14.09	18.18	20.05	19.50	18.80	15.34	D
Coyote	L	15.25	13.00	12.15	14.82	28.98	32.00	19.37	36.91	I
Ermine	S	2.43	.98	.52	.74	1.03	1.20	1.15	.80	D
Fisher	L	20.50	23.00	311.20	27.34	37.13	43.25	30.40	45.38	I
Cross Fox	L	16.50	18.00	21.90	19.98	43.93	67.50	31.30	48.06	R
Red Fox	L	14.50	10.00	12.40	15.15	29.40	39.00	20.08	30.87	R
Lynx	L	41.00	30.00	29.50	39.31	90.15	90.00	53.33	123.01	I
Marten	L	9.75	10.00	8.15	8.46	8.66	16.60	10.27	15.34	R
Mink	S	17.00	13.00	11.20	19.32	23.40	22.00	17.65	13.13	D
Muskrat	S	1.55	1.45	1.57	2.01	2.64	2.80	2.00	2.62	D
Otter	S	32.50	33.00	31.50	37.62	39.68	37.65	35.33	36.35	R
Squirrel	S	.40	.25	.25	.52	.50	.75	.45	.63	R
Timber Wolf	L	27.00	38.00	23.00	37.68	53.08	60.00	39.79	62.22	I

SOURCE: Bob Burns, Department of Mines, Resources and Environmental Management, Trappers Education, Winnipeg, Manitoba.

1. Wild fur statistics are calculated for the wild fur year which is from April 1 to March 31.

F. Economic Significance

Perhaps the most revealing statistics regarding Manitoba's trapping industry are those which are presented in the Executive Summary of the Wild Fur Program Agreement. For example, this document states that, "an estimated 28,000 people are, in varying degrees, dependent on wild fur resources for much of their earned income."<sup>24</sup> Further it is pointed out that annually an average of 2,600 registered trapline licences are issued in northern areas and of this figure, 65% (1,700) are held by Indian trappers. Also, Indians hold approximately 25% (1,200) open area licences out of a total of 4,200 licences.<sup>25</sup>

Moreover, this document noted that, "The annual [total] value of the wild fur harvest has fluctuated over the past twenty years"<sup>26</sup> (see Figure 6). This figure illustrates

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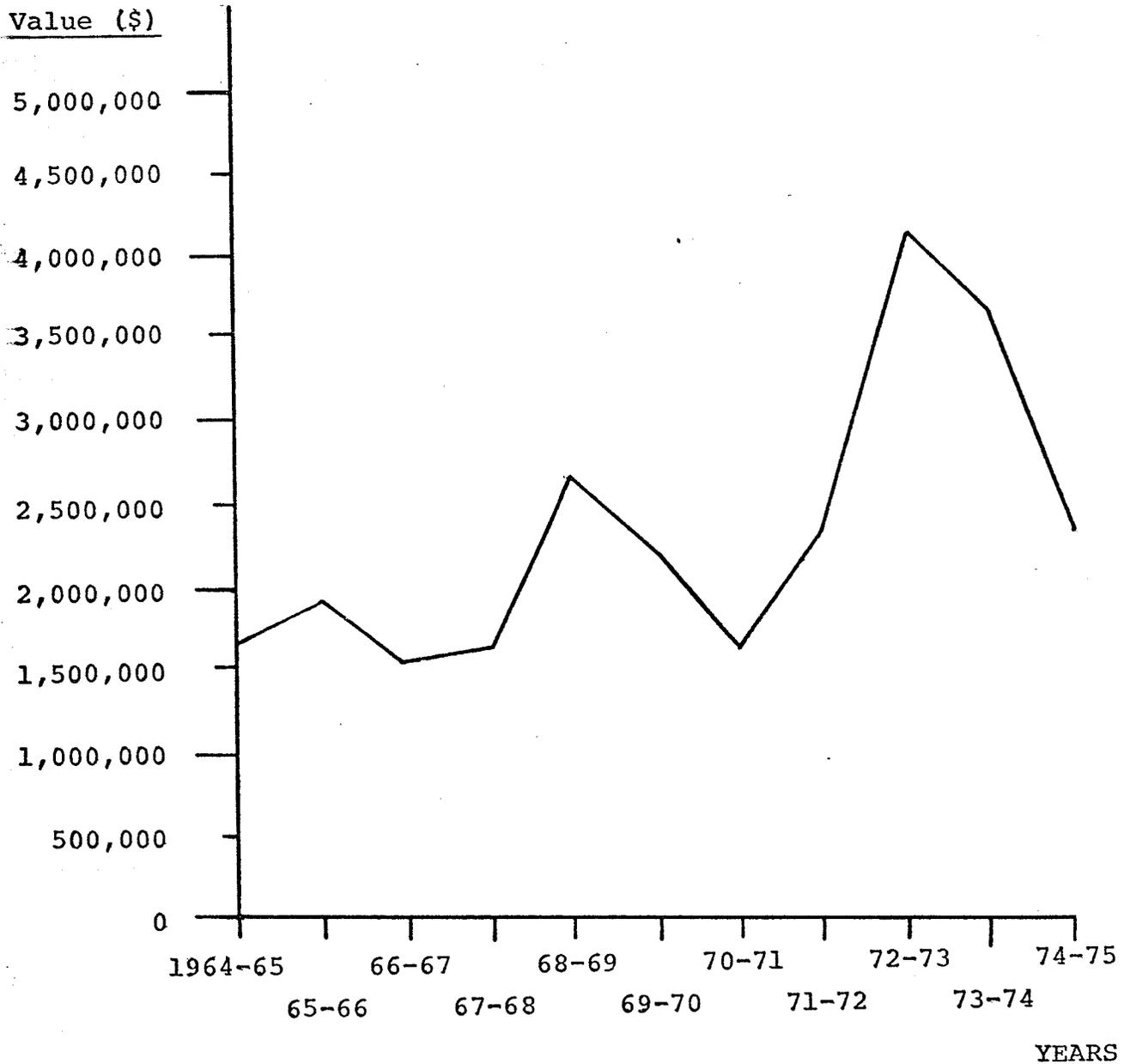
<sup>24</sup> Manitoba Wild Fur Program. Section A. Executive Summary, p. 1. It should be noted that the number, 28,000 persons, implies that there are 28,000 trappers in Manitoba. Section "C", Appendix II, states that there was a total of 8,345 trapline licences issued in 1972/73 (5,910 ordinary or open area trapping permits and 2,435 registered trapline permits). It is apparent that the number of 28,000 persons refers not only to trappers but to members trappers families and/or to those individuals who are indirectly employed in the trapping industry. An example of indirect employment are the employees of the various fur auction houses.

<sup>25</sup> Ibid., No distinction, however, is made between Treaty and non-Treaty Indians.

<sup>26</sup> Ibid.

FIGURE 6

ESTIMATED VALUATION OF PELTS<sup>1</sup> PRODUCED  
FROM THE WILD<sup>2</sup>, 1965-1975



SOURCE: Manitoba Department of Mines, Resources and Environmental Management, Annual Report, op. cit., 1975, p. 140.

1. Total fur production is divided into long and short hair fur bearing animals. Long hair fur bearing animals are fox (coloured), white fox, marten, lynx timber wolf, wolverine, badger, skunk, raccoon and fisher. Short hair fur bearing animals are beaver, otter, mink, muskrat, weasel, and squirrel.
2. The valuation of pelts is calculated for the wild fur year which is from April 1 to March 31.

that the annual value of the wild fur harvest has fluctuated from a low of \$1.3 million in 1966-67 to a high of \$4.2 million in 1972-73.<sup>27</sup> It is interesting to note that the 1972-73 figure represents less than one percent of the gross provincial product.

The preceding discussion of the various components of the trapping industry indicate that trapping comprises a small but important industry to the indigenous population of Northern Manitoba.

#### Review of Related Literature

The examination of literature regarding the trapping industry is also by no means exhaustive. While much literature has been written regarding the historical, social, cultural and biological dimensions of trapping comparatively little has been written regarding the economic dimension of trapping.<sup>28</sup> The socio-economic dimension is the focus of the following literature review.

A. G. Loughrey, Head of the Game Management Service

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<sup>27</sup>Manitoba Department of Mines, Resources and Environmental Management, Annual Report, 1975, op. cit., p. 140.

<sup>28</sup>For a review of literature on the historical, social and cultural dimensions of trapping see D. B. Ramsay, op. cit., p. 13-28.

for the Federal Government, in his article, "The Economics of the Fur Industry", discusses the economics of trapping at the macro level. He notes that the production of raw (wild) fur is dependent on two factors: the supply of wild furs which is dependent on biological factors such as reproductive success, the availability and quality of habitat and economic demand. Also he notes the supply of trappers "is partially determined by the profit motive and is greatly influenced by fur prices." Trapper incentive, however, is influenced indirectly by various socio-economic and cultural factors."<sup>29</sup> In his examination of the various components of the fur industry (production, marketing, processing, manufacturing and retailing divisions) Loughery notes that, "many of the firms within these divisions are under-capitalized and are susceptible to a profit squeeze".<sup>30</sup> Further, he states, "The industry as a whole is highly competitive, and is not concerned with management of the basic resource."<sup>31</sup> Loughery attributes the decline in production of wild furs "not to a decrease in the

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<sup>29</sup>A. G. Loughery, "The Economics of the Fur Industry in Canada, Resources for Tomorrow Conference, Volume 2, Ottawa, Department of Northern Affairs and National Resources, 1961, p. 845.

<sup>30</sup>Ibid.

<sup>31</sup>Ibid.

supply of the resource, but to decrease in the number of trappers.<sup>32</sup>

One perspective of the trapping industry at the provincial level was given in the Report of the Commission on Targets for Economic Development. The Commission confirmed that the trends occurring at the national level were also occurring in Manitoba. For example, the report noted that, "fur production has not increased significantly over the past twenty years; the returns earned by trappers are low, and that demand [for wild fur] is extremely unstable and fur prices fluctuate widely . . .".<sup>33</sup>

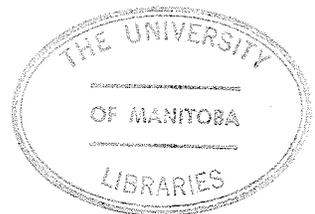
To alleviate these problems the Commission proposed six main recommendations for the development of the wild fur industry. They were:

1. The establishment of a Wild Fur Production Authority;
2. The changing of the basis of the royalty rate to a percentage of the price paid to the trapper rather than a fixed amount;
3. The establishment of rents for traplines to discourage inactive trappers;
4. A change in regulation to allow snaring;

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<sup>32</sup>Ibid. For wild production statistics for Canada see The Canada Yearbook 1974, Information Canada, Ottawa, 1975.

<sup>33</sup>Manitoba to 1980, op. cit., p. 97-98.



5. That the Indian education system be revised to allow Indians (children) to go trapping with their families; and,
6. The programme of trapper education should be continued and expanded with the aim of improving the quality of fur that is marketed from Manitoba.<sup>34</sup>

Another study that examined trapping in Manitoba was done by D. B. Ramsay entitled, The Economic and Social Cultural Situation of Native Trappers In Northern Manitoba. The purpose of this study "was to determine the economic, social and cultural situation of . . . native trappers."<sup>35</sup> Information was collected through a personally administered questionnaire to 180 trappers residing in the communities of Garden Hill, Nelson House, Little Grand Rapids, Red Sucker Lake and Shamattawa. Additional information was obtained from people in Government and private agencies as well as non-trapping Indians.

The results of the analysis regarding sources of income are listed below.<sup>36</sup>

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<sup>34</sup>Ibid. p. 99 and p. 102.

<sup>35</sup>D. B. Ramsay, op. cit., p. i.

<sup>36</sup>Ramsay states that, "this study is only a case study of the five selected trapping communities. It has not been statistically verified, and therefore the results can only be considered to be preliminary". Ibid., p. 49.

1. The highest total income, (\$4,021) was earned by trappers in the 35 to 55 age category.
2. Trappers 56 years of age and over earned the highest net income from trapping averaging \$257 per trapper.
3. Net trapping income, including income in kind, comprised 12 per cent to 16 per cent of average total income of trappers.
4. Net trapping income, excluding income in kind, comprised four percent to eight percent of average total income of trappers.
5. Two other major sources of income were alternate employment and transfer payments.<sup>37</sup>

Ramsay states that pursuing alternate employment was "due to a discontentment on the part of most trappers with their trapping situation. In many cases the discontentment was due to a lack of equipment and inadequate finances to purchase equipment."<sup>38</sup>

On the basis of the analysis Ramsay reached two conclusions. They were:

1. The number of trappers is decreasing and will continue to do so, due to availability of other employment.
2. The value of trapping lies not so much in the economic benefits it provides, but rather in its social and cultural significance.<sup>39</sup>

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<sup>37</sup> Ibid., p. 42-53.

<sup>38</sup> Ibid., p. ii

<sup>39</sup> Ibid., p. 59-61.

Evidence supporting the first conclusion is found in the Report of the Commission on Targets for Economic Development:

The number of trappers available for the hunting of fur bearing animals in 1980 should be less than the present number because of increased job alternatives in the north and dissatisfaction with returns from trapping. Employment by 1980 in the wild fur industry will probably be in the neighbourhood of 2,500 trappers, most of whom will trap only on a part-time basis.<sup>40</sup>

In 1974, at the request of the Special ARDA Branch, Manitoba Department of Northern Affairs, an evaluation of the Special ARDA Program of assistance to primary producers was conducted by A. G. Lupton and D. R. Johnston. The terms of reference for this evaluation were:

1. To undertake a review of the delivery procedures respecting the provision of grant assistance to primary producers in accordance with the terms and conditions as specified in the Special ARDA Agreement and associated administrative guidelines.
2. To undertake an assessment of the impact of assistance provided to fishermen and trappers with particular reference to income and social effects.
3. To assess the acceptability of the terms and conditions of the Special ARDA Agreement based

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<sup>40</sup>Manitoba to 1980, op. cit., p. 100.

on information collected.<sup>41</sup>

The authors conducted personal interviews with commercial fishermen and trappers in fourteen communities where Special ARDA assistance had been granted. Also, community leaders and government personnel were interviewed. Among the recommendations the authors made was the need for "a detailed study regarding the costs of production as related to various types of fishing and trapping efforts undertaken by fishermen and trappers".<sup>42</sup> Further, it was stated that, "This study should form the basis of a detailed evaluation of existing programming available to fishermen and trappers and enable the designing of new or modified programs to assist these primary producers".<sup>43</sup>

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<sup>41</sup>A. G. Lupton and D. R. Johnston, op. cit., p. 5-6.

<sup>42</sup>Ibid., p. 64.

<sup>43</sup>Ibid.

CHAPTER II

EVALUATION PROCEDURES

## CHAPTER II

### EVALUATION PROCEDURES

#### INTRODUCTION

The purpose of this chapter is to discuss the procedures followed in the evaluation of Special ARDA Program of assistance to trappers in Manitoba. The evaluation procedures were divided into ten sequential steps. They were:

1. Definition of economic terms used throughout the practicum;
2. Identification of the variables that were hypothesized to affect trapping income;
3. Development of a questionnaire to collect the socio-economic information relevant to the terms of reference of the evaluation;
4. The use of judgemental and statistical techniques to select a sample of local fur councils that received Special ARDA assistance where personal interviews would be conducted;
5. Pre-testing the questionnaire;
6. Making the proper protocol arrangements prior to the personal interviews;
7. Conducting the personal interviews in the local fur councils that were selected;
8. Organizing and tabulating the information collected from the personal interviews;
9. Analyzing the information collected; and,
10. Discussion of the results of the analysis.

Throughout all steps of the evaluation procedures consultations with an advisory group were held. The advisory group was composed of personnel from the University of Manitoba and the Special ARDA Branch, Manitoba Department of Northern Affairs.

Before discussing the evaluation procedures it is important to note the factors that limited the evaluation. The evaluation of the Special ARDA Program of assistance to Manitoba trappers was conducted from May to August 1975. Financial support for the evaluation was provided by the Student Temporary Employment Program, the Manitoba Department of Colleges and University Affairs Branch, and the Manitoba Department of Northern Affairs. The financial support restricted the number of students that could be contracted for the evaluation. In turn, this restricted the scope of the procedures that were used for the evaluation. For example, manpower limitations did not allow the wild fur production records of all trappers that received Special ARDA assistance to be examined. Also, time and budget limitations restricted the number of personal interviews that could be conducted with trappers that received Special ARDA assistance. Within these constraints the procedures to conduct the evaluation were developed.

## EVALUATION PROCEDURES

The evaluation procedures are discussed in the order previously mentioned.

### Definition of Economic Terms

Throughout this practicum many economic terms are used. This section defines the economic terms that are used most frequently throughout the practicum and whose meaning is often not clearly understood.

#### a) Gross Trapping Income

Gross trapping income refers to the total income a person receives from engaging in the activity of commercial trapping. Consider this example. Suppose a trapper trapped for fourteen weeks of the six month trapping season and received \$1,500 for his efforts. His gross income would then be \$1,500. This however, would not necessarily be his total income, for the trapper may earn income from other employment activities such as farming, construction, guiding or transfer payments.

#### b) Net Trapping Income

Net income from trapping is income after all costs, expenses and losses have been accounted for and subtracted

from gross trapping income. Again, consider the example of the trapper. To calculate his net trapping income, costs such as fuel, clothing, and repairs to equipment are subtracted from his gross trapping income. Also, costs such as interest on loans and depreciation of trapping equipment must be subtracted from his gross trapping income. The example below illustrates how net trapping income is calculated.

<u>Item</u>	<u>Expenses</u>	<u>Income</u>
Gross Trapping Income		\$1,500.00
Expenses:		
Fuel (gas and oil)	\$200.00	
Clothing (parkas, boots, gloves)	100.00	
Repairs to equipment	150.00	
Repayment of Loan (includes interest)	225.00	
Depreciation of Equipment	50.00	
	<u>750.00</u>	
Total Expenses	\$750.00	<u>750.00</u>
Net Trapping Income		<u><u>\$750.00</u></u>

Thus, net income is the value arrived at after deducting all money costs. After the deduction of tax net income represents the amount of money available to the trapper as income and as a source of funds for investment in new trapping equipment.

c) Income in Kind

Trappers residing in the remote communities of Northern Manitoba often engage in traditional activities such as fishing for non-commercial purposes. In these communities groceries are increased in price due to transportation costs. To minimize their food costs many primary producers use wild meat and fish as staples in their diet.

Again, consider the example of the trapper. Suppose during the trapping season he often brought home some beaver meat for his family to eat. Further, suppose that while on the trapline he shot some ducks and geese and a moose which his family also ate. This consumption of food is called income in kind or "perquisites". By eating the fish and wild fowl the trapper is decreasing the amount of the family budget that is spent on food purchases at the local grocery store. It is possible to determine the money the trapper saves by finding out how often and how much income in kind or "perquisites" he eats. The method for deriving income in kind is given in Appendix 5.

Identification of Variables

The second step of the evaluation procedure was to determine the quantifiable variables that affect trapping in-

come. To identify these variables a review of literature on the trapping industry and discussions with persons knowledgeable in the field of evaluation techniques were conducted. Based on these sources of information twenty-nine quantifiable variables were identified.

The twenty-nine variables hypothesized to have the most effect on trapping income were grouped into the following categories:

- a) Personal history;
- b) Equipment inventory and attitudes towards equipment;
- c) Employment (income) activities;
- d) Operating expenses; and,
- e) Other variables.

In the following discussion of the twenty-nine variables the brackets after the variables contain the units of measurement and the hypothesized sign of correlation. It is important to note two points. First, not all twenty-nine variables were tested for their effect on trapping income through the use of regression analysis. Those variables that were tested through the use of regression analysis are noted at the end of the various subsections.<sup>1</sup> Second, all variables reach a point of

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<sup>1</sup>The results of the regression analysis are presented and discussed in Chapter III.

marginal diminishing returns. For example, consider the age of trappers. It is hypothesized that as age increases the efficiency of the trapeprs operation and desire to trap will increase up to a certain age maximum. As a result trapping income should increase. It follows from this that older trappers earn a greater income from trapping than younger trappers. This could be the situation until diminishing marginal returns are reached; that is, until a trapper reaches an age when he is no longer able to continue trapping.

A) Personal History

The variables included in this section were:

- (1) Age of trappers (years, +). As age increases, efficiency of operation and desire to trap (up to a certain age maximum) would also increase.
- (2) Previous trapping experience (years, +). The longer a person has been trapping the more skillful (efficient) he should be.
- (3) Previous trapping income (dollars per year, +). If the individual derives an adequate income from trapping this should provide an incentive for him to continue trapping.
- (4) Time spent trapping (weeks per season, +). The length of time engaged in the activity is reflected by the trappers income.
- (5) Languages spoken (number, +). The number of languages an individual is able to speak is indicative of the potential management ability of that person. Also, increased communication ability will result in increased social inter-

action with personnel involved with trapping activities.

- (6) Languages written (number, +). The same logic explained in (5) is applicable to this variable. It is hypothesized that the number of languages a trapper is able to speak and/or write is indicative of the potential management ability of that person. Also, it will increase his ability to contact knowledgeable persons in order to gain information or advice.
- (7) Formal education (years completed, +). This would also be indicative of potential management abilities and hence potential income. Formal education includes training courses taken by trappers.
- (8) Physical disabilities (number, -). Those persons who are physically handicapped will derive less income from trapping due to a decrease in work ability.
- (9) Family size (number of children, +). Those individuals with large families will have an increased incentive to earn an income from trapping. It should be noted however, that the incentive to earn an income from trapping can be offset by greater amounts of transfer payments, which could have a negative effect on his trapping income.<sup>2</sup> Thus, the hypothesis regarding this variable is open to discussion.

These were the hypothesis regarding the nine variables included in this section. Variables number 1, 2, 4, 5, 6, and

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<sup>2</sup>A transfer payment is an economic term indicating a payment made by the provincial and/or federal governments for which no productive services were rendered. Examples are old age pensions, veterans' pensions and unemployment insurance payments. Transfer payments are an example of a variable that is indirectly correlated to other independent variables; that is, family size. (see G. Bannock, R. E. Baxter and R. Ress. A Dictionary of Economics, London: Penguin Books, 1972, p. 40.)

7 were tested through the use of regression analysis. The variables in the following section were concerned with primary producers equipment inventory and attitudes towards equipment.

B) Equipment Inventory and Attitudes Towards Equipment

The variables included in this section were:

- (10) Methods of transportation used (number and type, +). As the access to methods of transportation increase the trapper's mobility should increase. As a result of increased mobility the trapper has a greater opportunity to trap in more locations and increase his trapping income.
- (11) Value of transportation equipment, (dollars, +). This presumably reflects the quality of transportation equipment, higher quality would enable the person to spend more time at his trapping operation due to a decrease in repair time.
- (12) Number of animal traps (total number, +). The production of wild fur is dependent upon the number of traps set by the operator. The more traps a trapper has the greater his income should be.
- (13) Value of animal traps (dollars, +). The reasoning used to explain variable (11) is also applicable here, that is, an individual will be able to spend more time trapping due to a decrease in time spent repairing traps.
- (14) Type of animal traps (model number for traps, +).<sup>3</sup> This variable was included in order to gather data on the type of animal traps and their relationship to a trappers income. It is an open variable.

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<sup>3</sup>An example of a model number for traps is: conibear traps, number 330.

- (15) Type of support facilities available (numerical code, +).<sup>4</sup> This variable was included in order to gather data on the type of facilities used by trappers. Cabins on traplines and their relationship to a trappers income is an example.
- (16) Number of support facilities available (total number, +). It is hypothesized that this variable reflects the length of time a trapper spends on his trapline (i.e. better facilities on trapline may increase his desire to continue trapping).
- (17) Attitudes towards maintenance of all equipment. A positive attitude towards equipment maintenance reflects a longer productive time period and more efficient use of equipment.
- (18) Length of possession of equipment (years, +). The longer a trapper has had his equipment, the more familiar and skillful he is with its operation.
- (19) Other uses of transportation equipment ( - ). If a trapper uses his transportation equipment for other than primary producing purposes, it is expected the equipment will require increased maintenance.

These have been the hypothesis on the ten variables included in this section. Variables number 11, 12, 13, 14 and 16 were tested through the use of regression analysis. The variables in the following section were concerned with

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<sup>4</sup>A numerical code is numbers that are assigned to types in a group. For example, a numerical code for trapping equipment could be as follows:

Snowmobiles	1
Traps	2
Canoes	3
Outboard Motors	4

the employment (income) activities of trappers.

C) Employment (Income) Activities

The variables included in this section were:

- (20) Frequency of visits to animal traps (number per week, +). This variable provides a measure of effort a trapper exerts to secure his production. It is hypothesized that the greater frequency of visits the greater the trappers production of wild fur.
- (21) Time spent at alternate sources of employment during the trapping season (percent of total weeks of season alternate jobs done -). The greater the number of jobs a trapper undertakes during the trapping season, the less time he will spend at trapping. Therefore it is hypothesized that his trapping income will decrease in direct relation to alternate sources of income. For trappers, alternate employment includes commercial fishing. Also, the amount of time spent at alternate employment indicates a positive or negative attitude toward alternate employment during the trapping season.
- (22) Income from all transfer payments (dollars per year, -). This is a factor of family size and incentive of the individual.. It is hypothesized that the greater the amount of transfer payment the less incentive there will be to earn an income from trapping.
- (23) Sources of transfer payment (number, -). The greater number of sources of transfer payment, the greater the total amount of income derived from this source of income will be. Hence, they would act as a disincentive to trap.
- (24) The price of fur (dollars per type of pelt, +). As the price of fur changes, the trapper can change the type of fur he wants to harvest. Thus, his income will change according to price of pelts he harvests.

These have been the hypothesis on the five variables included in this section. Variables number 20, 21, 22 and 24 were tested through the use of regression analysis. The variables in the following section were concerned with the operating costs of primary producers.

D) Operating Costs

The variables included in this section were:

- (25) Availability of a "grubstake" (binary code (1, 0), +).<sup>5</sup> The availability of "grubstakes" or cash advances often determines whether a trapper can or cannot begin trapping at the beginning of the season.
- (26) Value of "grubstake" (dollars, +). The amount of a "grubstake" trapper receives often determines the initial length of time the trappers is able to spend at his operation.
- (27) Distance to trapline (miles, -). The greater the distance to the trapline, the greater time lost in transit and the more supplies are required. Thus, the trapper reduces the amount of time spent trapping while increasing his costs.

These have been the hypothesis on the three variables included in this section. None of the variables in this section were tested through the use of regression analysis. The variables in the next section were concerned with the two

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<sup>5</sup>A binary code indicates a yes or no answer. Yes is coded as 1 and no is coded as 0.

other variables which effect a trappers income.

E) Other Variables Considered

The variables included in this section are:

- (28) The resource base (numerical code, +). The amount of income derived from trapping is dependent upon the present population and category (long, short hair) of fur bearers in the trapline sections.
- (29) Weather (days lost in season, -). The weather conditions during the trapping season affect the frequency of visits to animal traps. During the interview, a trapper was asked to estimate the number of days he could not check his traps due to inclimate conditions. Also, it should be noted that severe climatic conditions can reduce the numbers of fur bearing animals thus reducing the trappers income for that particular year. This variable was excluded from the regression analysis due to difficulty of measurement. The category (long, short hair) of fur bearer was tested through the use of regression analysis.

These were the twenty-nine quantifiable variables that were hypothesized to effect trapping income.

Development of a Questionnaire

A questionnaire, composed of twenty questions, was developed to collect the socio-economic data relating to the terms of relevance of the evaluation (see Appendix 8). In general, the questionnaire contained questions pertaining to the five categories of variables that were identified and

discussed in the previous section. To reiterate the five categories were personal history, equipment inventory and attitudes towards equipment, employment (income) activities, operating expenses and other variables.

### Selecting a Sample

The fourth step of the evaluation procedures was to select a sample of the local fur councils that had received Special ARDA assistance. In the local fur councils selected personal interviews would be conducted. To select the local fur councils a two phase procedure that involved judgemental decisions and statistical techniques was developed.

### Phase One

#### Judgemental Decisions

The judgemental decisions made in the first phase of the selection procedure were as follows:

1. From a list of primary producer associations that had received Special ARDA assistance between July 20, 1971 and March 31, 1975 (see Table 2) local fur councils that had the following characteristics were eliminated for interviewing proposes:
  - a) The associations were evaluated in 1974;<sup>6</sup>

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<sup>6</sup>Thirteen primary producer associations were evaluated in 1974. See, D. Johnston and G. Lupton, An Evaluation of Assistance Provided to Fishermen and Trappers Under the Terms and Conditions of the Canada-Manitoba Special ARDA Agreement, Winnipeg, Manitoba Department of Northern Affairs, December, 1974.

Table 2. The Local Fur Councils That Received Special ARDA Assistance

<u>Name of Fur Council</u>	<u>Number of Trappers</u>	<u>Sub Total</u>
1) Hole River Local Fur Council	18	
2) Lac du Bonnet Local Fur Council	7	
3) Wabowden Local Fur Council	13	
4) <u>Camperduck Local Fur Council</u>	<u>7</u>	45 <sup>1</sup>
5) Cormorant Local Fur Council	13	
6) Nelson House Local Fur Council	34	
7) Split Lake Local Fur Council	37	
8) Shamattawa Local Fur Council	7	
9) Red Sucker Lake Local Fur Council	56	
10) York Landing Local Fur Council	7	
11) Pikwitonei Local Fur Council	14	
12) The Pas Local Fur Council	24	
13) Tadoule Local Fur Council	26	
14) Delta Local Fur Council	146	
15) Grand Rapids Local Fur Council	24	
16) Cross Lake Local Fur Council	21	
17) Cedar Lake Local Fur Council	4	
18) Churchill Local Fur Council	10	
19) Cormorant Local Fur Council (Group "B")	11	
20) Cranberry-Flin Flon Local Fur Council	3	
21) Moose Lake Local Fur Council	18	
22) Porcupine-Barrows Local Fur Council	29	
23) Shoal River Local Fur Council	8	
24) Norway House Local Fur Council	30	
25) Poplar River Local Fur Council	29	
26) Berens River Local Fur Council	20	
27) <u>Thicket Portage Local Fur Council</u>	<u>9</u>	580 <sup>2</sup>
28) Pukatawagan Local Fur Council	50	
29) Wassagomach Local Fur Council	30	
30) God's Lake Narrows Local Fur Council	13	
31) Little Grand Rapids Local Fur Council	23	
32) Brochet Local Fur Council	33	
33) Bullhead Local Fur Council	11	
34) Camperduck Local Fur Council (2nd Group)	27	
35) Dallas Local Fur Council	23	
36) Garden Hill Local Fur Council	64	
37) Granville Lake Local Fur Council	15	
38) Lac du Bonnet Local Fur Council (2nd Group)	16	
39) Oxford House Local Fur Council	32	
40) Ste. Theresa Point Local Fur Council	21	
41) Sherridon Local Fur Council	11	
42) Skownan-Waterhen Local Fur Council	24	
43) God's River Local Fur Council	17	
44) Bloodvein River Local Fur Council	26	
45) Ilford Local Fur Council	10	
46) South Indian Lake Local Fur Council	14	
47) The Pas Local Fur Council (2nd Group)	25	
48) Moose Lake Local Fur Council (2nd Group)	43	
49) Poplar River Local Fur Council (2nd Group)	25	
50) Norway House Local Fur Council (2nd Group)	37	
51) Netley Local Fur Council	12	
52) <u>Split Lake Local Fur Council (2nd Group)</u>	<u>30</u>	632 <sup>3</sup>
<b>GRAND TOTAL</b>	<b><u>1,257 Trappers</u></b>	

Source: General files, Special ARDA Branch, Manitoba Department of Northern Affairs, 1975.

1. To year ending March 31, 1973.

2. To year ending March 31, 1974.

3. To year ending March 31, 1975.

- b) The local fur councils received Special ARDA assistance after the 1974 trapping season; and,
- c) The local fur council did not receive a variety of types of trapping equipment through the Special ARDA Program.

### Statistical Techniques

If membership in a particular local fur council was less than the median number of members in all the local fur councils it was eliminated for interviewing purposes.<sup>7</sup> The median number of members in all the local fur councils was twenty. The reasons why certain local fur councils that received Special ARDA assistance were not selected for interviewing purposes are given in Table 3.

### Phase Two

The second phase of the selection procedure was applied to the eight remaining local fur councils. For these local fur councils the 1973-1974 production of long and short haired fur bearers was calculated for all the members that

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<sup>7</sup>A median is a method of expressing central tendency. It is found by arranging all the values in order. If the set (fur council) contains an odd number of values (members) then the middle value is the median. If the set contains an even number of values the median is found by taking the average of the number at the  $n/2$  and  $(n + 2)/2$  level. For example, the median of the six numbers 1 3 8 12 18 20 is the average of the 3rd ( $n/2 = 3$ ) and 4th ( $(n + 2)/2 = 4$ ) numbers is  $(8 + 12)/2 = 10$ . The median is 10 for this example.

Table 3. The Reasons Local Fur Councils were Ineligible for Interviewing Purposes

ASSOCIATIONS	EVALUATED IN 1974	NO DATA AVAILABLE	RECEIVED EQUIP- MENT AFTER SPECIFIED DATE	INADEQUATE MEMBERSHIP	PROMINANCE OF ONE TYPE OF EQUIP- MENT	% SHORT OR LONG HAIR PRODUCTION TOO LOW
Berens River						////////
Bloodvein			////////			
Brochet			////////			
Bullhead	////////		////////	////////		
Camperduck	////////					
Camperduck #2			////////			
Cedar Lake				////////		
Churchill				////////		
Cormorant	////////			////////		
Cormorant #2				////////		
Cranberry-Flin Flon				////////		
Cross Lake*						
Dallas		////////			////////	
Delta		////////				
Garden Hill			////////			
Grand Rapids						////////
Gods Lake Narrows				////////		
Grandville			////////	////////		
Gods River			////////	////////		
Hole River	////////			////////		
Ilford			////////	////////		
Lac Du Bonnet	////////			////////		
Lac Du Bonnet #2			////////	////////		
Little Grand Rapids			////////			
Moose Lake				////////		
Moose Lake #2			////////			
Nelson House	////////					
Netley			////////			
Norway House						////////
Norway House #2			////////			
Oxford House			////////			
Pitwitonei	////////					
Poplar River						////////
Poplar River #2			////////			
Porcupine Barrows*			////////			
Pukatawagan			////////			
Red Sucker Lake	////////					
Shamattawa				////////		
Shoal River				////////		
Sherridon			////////	////////		
Skowman-Waterhen			////////			
South Indian Lake			////////	////////		
Split Lake	////////					
Split Lake #2			////////			
St. Theresa Pt.			////////			
Tadoule Lake*						
The Pas*						
The Pas #2			////////			
Wassagomach				////////		
York Landing	////////			////////		

\* Indicates fur councils selected.

received Special ARDA assistance and for whom wild fur production records were available. The four local fur councils selected were Cross Lake, Porcupine-Barrows, Tadoule Lake and The Pas (see Table 4). Cross Lake, Tadoule Lake and The Pas local fur councils are registered trapline areas. Porcupine-Barrows local fur council is a mixture of registered traplines and open trapping areas.

Table 4 indicates that Cross Lake had a relatively balanced production of long and short haired fur bearers. The Pas had the highest percentage of total production from short haired fur bearers. Tadoule Lake had the highest percentage of total production from long haired fur bearers. The production of long and short haired fur bearers was not calculated for Porcupine-Barrows due to the lack of wild fur data.<sup>8</sup> It was assumed that the majority of the total fur production for Porcupine-Barrows Local Fur Council was from short haired fur bearers. This assumption was based on discussion with the advisory personnel and an examination of topographic maps of the area. The examination of topographic maps revealed that one characteristic of the Porcupine-Barrows area is wet low lying land which provides habitat for short

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<sup>8</sup>Wild fur production data (1973-1974) was available for only five members of the Porcupine-Barrows Local Fur Council.

Table 4. 1973-1974 Wild Fur Production for the Local Fur Councils Considered for Selection, In Dollars and Percentages

<u>Local Fur Council</u>	<u>Short Hair Sales for all Members (\$)<sup>1</sup></u>	<u>Long Hair Sales for all Members (\$)<sup>1</sup></u>	<u>Total</u>	<u>Percentage of Grand Total Short Hair Sales for each Association (\$)</u>	<u>Percentage of Grand Total Long Hair Sales for each Association (\$)</u>
Berens River	\$ 2,936.	\$ 695.	\$ 3,631	6%	10%
* Cross Lake	\$ 7,000.	\$ 990.	\$ 7,990	15%	15%
Grand Rapids	\$ 5,518.	\$1,005.	\$ 6,523.	12%	15%
Popular River	\$ 3,599.	\$ 632.	\$ 4,131.	8%	9%
* Porcupine-Barrows <sup>2</sup>	-	-	-	-	-
Norway House	\$ 7,125.	\$1,310.	\$ 8,435.	15%	20%
* Tadoule Lake	\$ 2,063.	\$1,416.	\$ 3,479.	4%	21%
* The Pas	\$19,242.	\$ 558.	\$19,830.	41%	9%
Grand Total	\$47,483.	\$6,637	\$54,019	100%	100%

SOURCE: Manitoba Department of Mines, Resources and Environmental Management, Wild Fur Production Statistics, 1973-1974.

1. Short and long hair sales were calculated for all members in the local fur councils that received Special ARDA assistance and wild fur production records were available for.
2. Wild fur production was not calculated for Porcupine-Barrows Local Fur Council as 1973-1974 production records were available for only five members. For open trapping areas wild fur production statistics are aggregated for the particular open trapping area. They are not recorded for the individual trapper as is the case for registered traplines.

\* Indicates local fur councils selected.

haired fur bearers such as beaver, muskrat and mink.

Tables 5 and 6 contain information on the Special ARDA assistance that was granted to the local fur councils selected.

#### Rationale for the Selection Procedure

In general, the time and budget constraints of the evaluation are one reason why judgemental decisions were made regarding the selection procedure. Another reason was that the strict statistical procedure of local fur council selection was too rigid in relation to the characteristics of the local fur councils in the total sample. The specific reasons for the use of judgemental decisions and statistical criteria in the selection procedure are presented below.

#### Judgemental Decisions

The rationale for the judgemental decisions made are as follows:

1. It was decided that conducting personal interviews in the local fur council that were evaluated 1974 would be repetitious.
2. To gather information on the terms of reference regarding income, attitudes equipment care and the additional uses of trapping transportation equipment it was decided that the equipment granted had to be in use for at least one full trapping season. Thus, the local fur councils that received Special ARDA assistance after the 1974

Table 5. Special ARDA Assistance Information for the Local Fur Councils Selected

<u>Local Fur Council</u>	<u>Date of Receipt of Special ARDA Assistance</u>	<u>Number of Members</u>	<u>Average Amount of Special ARDA Assistance<sup>1</sup></u>
Cross Lake	Winter, 1973-74	21	\$1,536
Porcupine-Barrows	Winter, 1974	29	\$ 925
Tadoule Lake	Winter, 1973-74	26	\$1,327
The Pas	Winter, 1974	24	\$1,615

SOURCE: Special ARDA Branch, Department of Northern Affairs, general files.

1. The average amount of Special ARDA assistance is for all members in the local fur council that received equipment grants.

Table 6. The Type and Dollar Value of Special ARDA Assistance for the Trappers Sampled

<u>Local Fur Council</u>	<u>Type of Special ARDA Assistance</u>	<u>Total Dollar Value of Special ARDA Assistance for the Trappers Interviewed<sup>1</sup></u>
Cross Lake	Snowmobiles	\$ 11,050.
	Canoes	3,300.
	Outboard Motors	3,125.
	Traps	4,600.
	Miscellaneous <sup>2</sup>	1,500.
Sub Total		\$ 23,575.
Porcupine-Barrows	Snowmobiles	\$ 3,600.
	Canoes	1,500.
	Outboard Motors	1,500.
	Traps	3,750.
	Miscellaneous	1,000.
Sub Total		\$ 11,350.
Tadoule Lake	Snowmobiles	\$ 13,000.
	Canoes	3,150.
	Outboard Motors	2,800.
	Traps	5,000.
	Miscellaneous	5,000.
Sub Total		\$ 29,050.
The Pas	Snowmobiles	\$ 9,000.
	Canoes	3,300.
	Outboard Motors	2,500.
	Traps	3,050.
	Miscellaneous	3,200.
Sub Total		\$ 21,050.
Grand Total		<u>\$ 85,025.</u>

SOURCE: Department of Northern Affairs, Special ARDA Branch, Schedule A, Special ARDA Agreement Contracts.

1. Total dollar value includes sales tax.
2. Miscellaneous refers to items directly related to trapping, such as, power saws, tents, bed-rolls and repairs to trapping equipment.

trapping season were eliminated for interviewing purposes.

3. The criteria regarding all types of trapping equipment was included to avoid selection of those local fur councils that received an uneven distribution of trapping equipment.

### Statistical Criteria

The rationale for the use of the statistical criteria are as follows:

1. The median was used for two reasons. First, to ensure a random selection of fifteen members in each local fur council selected. Regression analysis, which was the method of analysis used for the evaluation, requires a degree of randomness in the final selection of the individuals to be interviewed. Second, to maintain a representative sample of the total population of trappers that received Special ARDA assistance.
2. The local fur councils were stratified into open and registered trapping areas and long and short hair fur production to compare the dollar value of wild fur production of the different categories. Thus, the local fur councils selected represented the different types of trapping areas but also the different types of fur bearers trapped.

### Location of Local Fur Councils Selected

The geographic location of the local fur councils selected in the different types of trapping areas is shown in Figure 7. The Pas Indian Reserve (1971 population, 1,213 persons), which is separated from the town of The Pas by the Saskatchewan River, is located 350 air miles northwest of

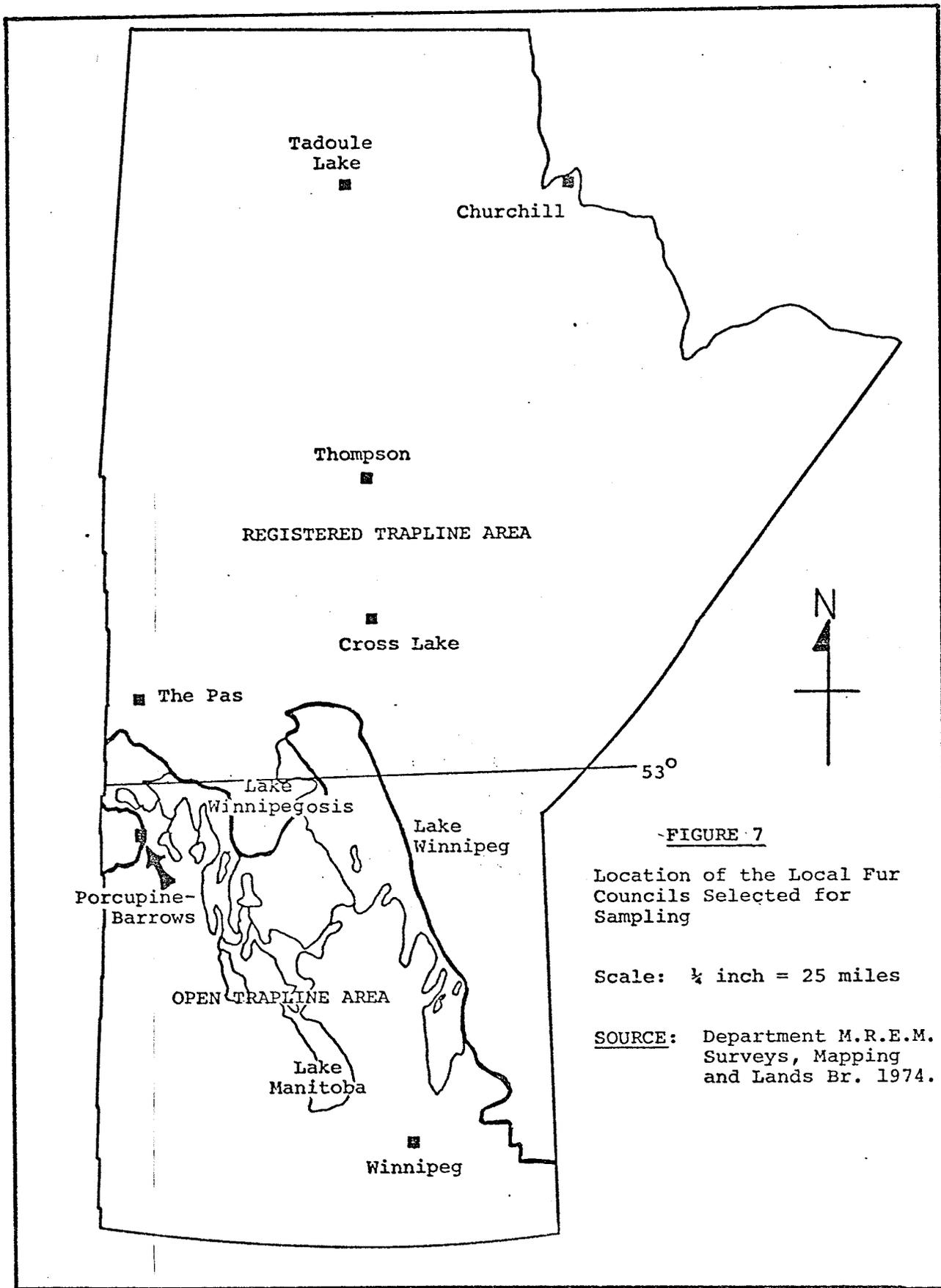


FIGURE 7

Location of the Local Fur Councils Selected for Sampling

Scale:  $\frac{1}{4}$  inch = 25 miles

SOURCE: Department M.R.E.M. Surveys, Mapping and Lands Br. 1974.

Winnipeg. In the Cross Lake locality there are two administrative communities; Cross Lake (1971 population, 167 persons) and Cross Lake Indian Reserve (1971 population, 1,682 persons). Both communities are approximately 75 air miles south of Thompson and are located on the south shore of Cross Lake. Trappers in the Porcupine-Barrows fur block come from several communities. The majority, however, are located in two communities; Barrows (1971 population, 198 persons) and Bowsman (1971 population, approximately 250 persons). The community of Tadoule Lake (1975 population approximately 250 persons) is an Indian Reserve, located approximately 250 air miles north of Thompson and approximately 100 air miles west of Churchill.<sup>9</sup>

#### Pre-testing the Questionnaire

A group of fishermen from St. Ambroise and the evaluation team worked together to pre-test the trapping and commercial fishing questionnaires. The purpose of pre-testing the questionnaires was to obtain primary producers suggestions on how to improve the style and manner in which questions were asked and whether additional questions should be asked. As

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<sup>9</sup>The community of Tadoule Lake was not located at its present site in 1971. Thus, the approximate population of the community for 1975 was used.

well, adjustments were made in the questionnaires to assure complete understanding of the questions asked and responses made.

#### Preparation for Personal Interviews

In mid June of 1975 the four local fur councils were selected and the questionnaire pre-tested. Following this arrangements regarding interviewing and the involvement of the local citizens were made. Prior to arriving in a community, the proper authorities were notified by letter explaining the purpose of the evaluation and the dates when the evaluating team wished to interview primary producers. A copy of the 1974 evaluation accompanied this letter and where necessary arrangements were made to secure an interpreter. In the case of Metis communities the authorities notified were the Mayor and the President of the local fur council. For Treaty Indian communities the Chief, the Band Administrator and the President of the local fur council were notified.

Upon arrival in the selected communities, those authorities who had been notified were contacted and a meeting to explain and answer questions regarding the purpose of the evaluation was held. Once permission to proceed had been granted (it was never refused) the services of an interpreter were confirmed. If deemed necessary by the President of

the local fur council or if he had not already done so, a further meeting with the membership of the fur council was held to explain and answer questions regarding the evaluation.

Upon completion of the interviews those authorities and others who had given aid were thanked. The address of the authorities were recorded in order that a copy of the evaluation and the practica could be sent to them upon completion. Also, a letter containing a summary of the results of the evaluation was sent to the primary producers that were interviewed.

#### Conducting Personal Interviews

The seventh step of the evaluation involved personal interviews in the four local fur councils selected. Fifteen members in each local fur council (a total of sixty trappers) were to be randomly selected for personal interviews. Due to the availability of alternate employment during the summer months, however, only fifty-nine interviews with trappers were completed (see Table 7). The fifty-nine trappers interviewed represent 5% of the total number of trappers that received Special ARDA assistance.

Each personal interview took approximately two hours to conduct. An interpreter was present if the individual trapper wished to speak in his native language.

Table 7. Total Interview Contacts and Dispositions

<u>Local Fur Councils</u>	<u>Number of members</u>	<u>Total attempted contacts</u>	<u>Number of personal interviews conducted</u>	<u>Not home when located<sup>1</sup></u>	<u>No contact<sup>2</sup></u>	<u>Refusals</u>	<u>Deceased</u>	<u>Ill</u>
Cross Lake	21	21	15	6	--	--	--	--
Porcupine Barrows	29	29	15	8	4	1	1	--
Tadoule Lake	26	26	15	4	7	--	--	--
The Pas	24	24	14	6	1	--	1	2
Total	100	100	59	24	12	1	2	2

SOURCE: Compiled from questionnaire responses.

1. Not home when located - This means the place of residents was found but interviewee was either at work, away from home or somewhere else unknown to the residents of that particular home.
2. No Contact - This means that no contact at all with the prospective interviewee was made.

### Organization and Tabulation of Data

The organization tabulation of the information collected during the personal interviews began in August of 1975. At this time the data was coded and keypunched on to computer cards. Through the use of computers the information from the questionnaire was then tabulated for display in the report and the practica. Also at this time the 1974-1975 wild fur production for the trappers interviewed was collected and tabulated.

### Analysis of Data

Twenty variables from the list of variables hypothesized to affect trapping income were selected to be tested through multiple regression analysis. (Multiple regression analysis is discussed in detail in Appendix 9). Several combinations of variables were tested through the use of regression analysis before the most important variables affecting trapping income were determined.

### Discussion of Findings

The final step in the evaluation procedure was to discuss the analysis of the data in terms of the evaluation terms of reference.

CHAPTER III

EVALUATION FINDINGS AND DISCUSSION

## CHAPTER III

### EVALUATION FINDINGS AND DISCUSSION

#### INTRODUCTION

The purpose of Chapter III. is to present and discuss the findings of the evaluation procedures. The findings of the evaluation are presented and discussed in the following order:

1. The income characteristics of the trappers sampled;
2. The statistically significant variables affecting trapping income;
3. The attitude of the trappers sampled towards equipment maintenance;
4. The additional uses of trapping transportation equipment;
5. The problems identified by the trappers sampled; and,
6. A discussion of the implications of equipment replacement.

#### INCOME CHARACTERISTICS

The income characteristics of the trappers interviewed are presented and discussed under the following headings:

1. Income changes:

- A) Questionnaires responses; and,
  - B) Wild fur production records;
2. Income in kind;
  3. Gross income categories; and,
  4. Alternate employment and gross income.

#### INCOME CHANGES

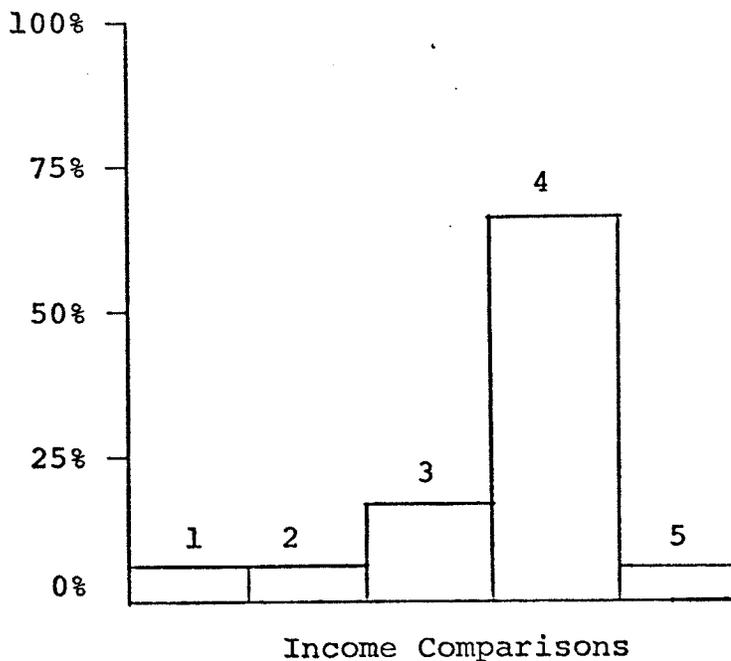
The changes in trapping income were analyzed from two different sources. They were: A) questionnaire responses; and, B) wild fur production statistics for 1973-1975.

##### A. Questionnaire Responses

The results of the questionnaire responses regarding changes in trapping income are presented in Appendix 11, Table 1, and Figure 8 on the following page. Figure 8 indicates that 68% of the total sample observed an increase in trapping income and attributed the increase to the receipt of Special ARDA assistance. Five percent of the trappers interviewed attributed the increase in trapping income to other factors. Table 1, Appendix 11 indicates that the increase in trapping income attributed to the receipt of Special ARDA assistance was highest in Porcupine-Barrows (87%) followed by The Pas (86%), Cross Lake (60%), and Tadoule Lake (40%) respectively.

Figure 8 Comparisons of Trapping Income Before and After the Receipt of Special ARDA Assistance.

Percentages for the Trappers Interviewed



SOURCE: Compiled from questionnaire responses.

1. No response to questions (5%).
2. Decrease in trapping income after receipt of Special ARDA assistance (5%).
3. No change in trapping income after receipt of Special ARDA assistance (17%).
4. If increase in trapping income attributed to receipt of Special ARDA assistance (68%).
5. If increase in trapping income attributed to other factors (5%).

B. Wild Fur Production Statistics

The results of the questionnaire responses regarding changes in trapping income are supported by an analysis of gross and net trapping income changes for 1973-1975 (see Table 8). This analysis was independent of the questionnaire responses to income changes. It is important to note that wild fur production records were available for only thirty trappers of the fifty-nine interviewed for the years 1973-1975. The assumptions made and methods used to calculate the changes in trapping income are presented in Appendix 10.

Changes in Gross Trapping Income

Table 8 indicates the changes in gross trapping income for the total sample and the individual local fur councils. For the total sample the average gross trapping income was \$774 in 1973-1974 and \$1,160 in 1974-1975. The average increase in gross trapping income from 1973-1975 was \$726. This represents a 50% change in gross trapping income over the years 1973-1975. The individual local fur council that had the highest average gross trapping income for 1973-1974 (\$993) and 1974-1975 (\$1,838) as well as the highest average change in gross trapping income for 1973-1975 (85%) was Porcupine-Barrows.

Table 8. 1973-1975 Gross and Net Trapping Income Comparisons, In Dollars and Percentages

		LOCAL FUR COUNCIL					
		<u>Cross Lake</u>	<u>Porcupine- Barrows</u>	<u>Tadoule Lake</u>	<u>The Pas</u>	<u>Total Sample</u>	
Number of trappers interviewed		15	15	15	14	59	
Number of trappers with 1973-1975 production records		7	10	4	9	30	
G R O S S  T R A P P I N G  I N C O M E  (\$)	Average gross trapping income 1973-1974	\$516	\$993	\$221	\$977	\$774	
	Average gross trapping income 1974-1975	\$218	\$1,838	\$333	\$1,508	\$1,160	
	Average percentage change in gross trapping income 1973-1975	-58%	85%	51%	54%	50%	
	Number of trappers with:						
	Increases	1 <sup>1</sup>	8	3	7	19	
	Decreases	5	2	1	2	10	
	Average increase for trappers with increases	\$54	\$1,158	\$153	\$780	\$726	
	Average decrease for trappers with decreases	-\$428	-\$356	-\$10	-\$345	-\$355	
	N E T  T R A P P I N G  I N C O M E <sup>2</sup>  (\$)	Average net trapping income 1973-1974	-\$494	\$772	-\$104	\$186	\$194
		Average net trapping income 1974-1975	-\$235	\$1,499	-\$118	\$795	\$668
Average percentage change in net trapping income 1973-1975		52%	94%	-13%	327%	244%	
Number of trappers with:							
Increases		6	8	2	7	23	
Decreases		1	2	2	2	7	
Average increase for trappers with increases		-\$320	\$972	\$45	\$420	\$386	
Average decrease for trappers with decreases		-\$109	-\$250	-\$5	-\$1,288	-\$456	

SOURCE: Compiled from Department of Mines, Resources and Environmental Management Wild Fur Production Statistics 1973-1975 and questionnaire responses.

1. At Cross Lake one of the trappers wild fur production remained constant from 1973-1975.
2. Net income calculations include depreciation costs.

### Changes in Net Trapping Income

Table 8 also indicates the changes in net trapping income for the total sample and the individual local fur councils. By using the methods formulated in Appendix 10 it was possible to compare 1973-1975 net trapping incomes for the thirty trappers with wild fur production records for these years. For the total sample the average net trapping income was \$194 in 1973-1974 and \$668 in 1974-1975. The average increase in net trapping income was \$386. This represents a 244% change in net trapping income over the years 1973-1975. The individual local fur council that had the highest net trapping income for 1973-1974 (\$772) and 1974-1975 (\$1,499) was Porcupine-Barrows. The Pas Local Fur Council had the greatest change in net trapping income (327%) from 1973-1975.

It is important to note that two local fur councils (Cross Lake and Tadoule Lake) had negative average net trapping incomes for the years 1973-1975. Cross Lake Local Fur Council, however, showed a positive change in average net trapping income while the average net trapping income for Tadoule Lake remained relatively constant.

### Discussion of Income Changes

The literature review of the trapping industry pre-

sented in Chapter I and discussions with the trappers interviewed indicated there are several possible explanations for an increase, no change or a decrease in trapping income. Some explanations include:

1. The number of weeks spent trapping could have increased or decreased. An increase in the number of weeks spent trapping could be due to such factors as favourable climatic conditions for trapping or less time required to maintain trapping equipment. A decrease in the number of weeks spent trapping could be due to adverse climatic conditions for trapping or increased time needed to maintain trapping equipment.

It is important to note that the evaluation did not attempt to compare the duration of time spent trapping before and after the receipt of Special ARDA assistance.

2. The biological resource base or supply and quality of fur bearing animals could have increased or decreased. If the supply and quality of fur bearing animals increased a trappers income could increase. Conversely, if the supply and quality of fur bearing animals decreased a trappers income could decrease. As was noted in the discussion on the biological resource base in Appendix 7, the Manitoba Department of Mines, Resources and Environmental Management is currently devising a system to measure changes in the biolog-

ical resource base.

3. As indicated by Table 1 the price of pelts for the three major fur bearing animals trapped (beaver, muskrat and mink) declined over the past three years. This could account for a decrease or no change in trapping income.

These are some of the general factors which constrain the amount of income a person can derive from trapping. Moreover, it is important to note the factors discussed are not within the control of the administrators of the Special ARDA Program.

The reason for the decrease in gross trapping income at Cross Lake can be attributed to the Churchill-Nelson Rivers Hydro Development Program being implemented by Manitoba Hydro. Under this program land in the Cross Lake area was cleared and the water level raised to accommodate a generating station at Jenepeg, which is approximately twenty-five miles south of Cross Lake. Spokesmen for those trappers whose traplines were affected by Nelson River development program maintain that the rise in water levels destroyed the habitat for aquatic fur bearing animals.<sup>1</sup> In turn, this resulted in a decrease in population of aquatic fur bearers which had a

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<sup>1</sup>Aquatic fur bearing animals refers to muskrat, beaver, mink and otter.

negative affect on trapping income.<sup>2</sup> Further, with fluctuating water levels ice conditions are unstable. As a result of unstable ice conditions the trappers are confronted with the risk of losing their trapping equipment while crossing rivers and lakes when coming and going from their traplines. To avoid this risk many trappers did not trap.

It is important to note that the calculations made to determine net trapping income included depreciation costs. From the viewpoint of income tax regulations depreciation costs can only be deducted from gross income if the equipment grant was declared as income. This does not, however, imply that the calculations made to determine net trapping income were wrong. Whether a trapper did or did not declare his assistance as income is a moot point. For the purposes of the evaluation what was of importance was that a trapper had the equipment in his possession and used it for the purpose of trapping. Thus, depreciation costs were deducted from gross trapping income to determine the effect of trapping equipment on a trappers income through the use of regression analysis. Moreover, if depreciation costs had not been de-

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<sup>2</sup>The Social and Economic Impact Study of the Churchill-Nelson Rivers Hydro Development prepared by The Social and Economic Impact Study Team, Planning Branch, Department of Mines, Resources and Environmental Management, June 1974, p. 153-162.

ducted from gross trapping income the value for net trapping income would undoubtedly have increased.

In Table 8 it was noted that wild fur production records were unavailable for twenty-nine of the trappers that were interviewed. It should be noted that this was the first time that wild fur production statistics have been used to measure changes in trapping income. Further, it should be noted that there is no standard means of collecting and tabulating wild fur production statistics for the Province of Manitoba. As a result of this last point there are two reasons why wild fur production records were unavailable.

They were:

1. Trappers often pool their production of pelts and sell them under the name of one of the trappers in the group. Hence, the production of all the trappers in the group appears under one trappers name. Further a trapper may sell his production in his name in one year and under another trappers name the next. As a result it is difficult to measure the changes in production (income) over time; and,
2. All of a trappers furs may not be sold at one auction. A portion of his production may be sold at one auction while the remainder is sold at other auctions. Hence, it is possible that only a portion of the pelts that are sold are recorded as income.

#### INCOME IN KIND

Income in kind was calculated as a percentage of total gross trapping income for 1974-1975 (see Table 9). The cal-

Table 9. Income In Kind, In Dollars, As A Percentage of Total Gross Trapping  
Income 1974-1975

<u>Local fur council</u>	<u>Average total 1974-75 gross trapping income<sup>1</sup> (\$)</u>	<u>Average total value of income in kind<sup>1</sup> (\$)</u>	<u>Average grand total</u>	<u>Income in kind as a percentage of grand total</u>
Cross Lake	\$ 291	\$1,510	\$1,801	84%
Porcupine-Barrows	\$1,272	\$ 970	\$2,242	53%
Tadoule Lake	\$ 251	\$1,558	\$1,809	81%
The Pas	\$1,349	\$1,255	\$2,604	49%
Total sample	\$ 781	\$1,324	\$2,106	66%

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management Wild Fur Production Statistics, 1974-1975.

1. Gross trapping income and income in kind was calculated for those trappers with 1974-1975 wild fur production records. Wild fur production records were unavailable for thirteen of the fifty-nine trappers interviewed.

calculations used to determine the dollar value of income in kind for the 1974-1975 trapping season were based on two assumptions regarding the number of moose and caribou consumed and the percentage of trapped animal carcasses that were utilized. Since income in kind was calculated for only the wild meat consumed (excluding fish) during the 1974-1975 trapping season and since the use of animal hides for items such as mitts, mocassins and jackets were excluded from the calculations the value of income in kind determined was conservative. Further, it should be noted that the calculations were made for only forth-six of the fifty-nine trappers interviewed. This was necessary due to the absence of 1974-1975 fur production (income) records for thirteen of the trappers interviewed.

As indicated by Table 9 the average dollar value of income in kind was \$1,324. For the total sample income in kind comprixed 66% of total gross trapping income. Income in kind as a percentage of the total trapping revenue was highest in Cross Lake (84%) followed by Tadoule Lake (81%), Porcupine-Barrows (53%), and The Pas (49%) respectively. A discussion of income in kind is presented in Appendix 5.

#### GROSS INCOME CATEGORIES

The gross income categories for the trappers sampled are presented in Table 10. Table 10 indicates that the majority

Table 10. 1974-1975 Gross Income Categories, All Sources<sup>1</sup>, In Dollars for the Trappers Sampled

Gross income categories (\$)	Total Sample		Cross Lake		Porcupine-Barrows		Tadoule Lake		The Pas	
	No.	%	No.	%	No.	%	No.	%	No.	%
0- 2,999	2	4%	0	0	1	7%	1	7%	0	0
3,000- 6,999	26	44%	8	53%	4	27%	9	60%	5	36%
7,000- 9,999	16	27%	3	20%	5	33%	4	26%	4	29%
10,000-13,999	10	17%	3	20%	2	13%	1	7%	4	28%
14,000-16,999	4	6%	1	7%	2	13%	0	0	1	7%
17,000-20,999	0	0	0	0	0	0	0	0	0	0
21,000 & over	<u>1</u>	<u>2%</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>7%</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	59	100%	15	100%	15	100%	15	100%	15	100%

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management Wild Fur Production Statistics, 1974-1975.

1. Excludes income in kind.

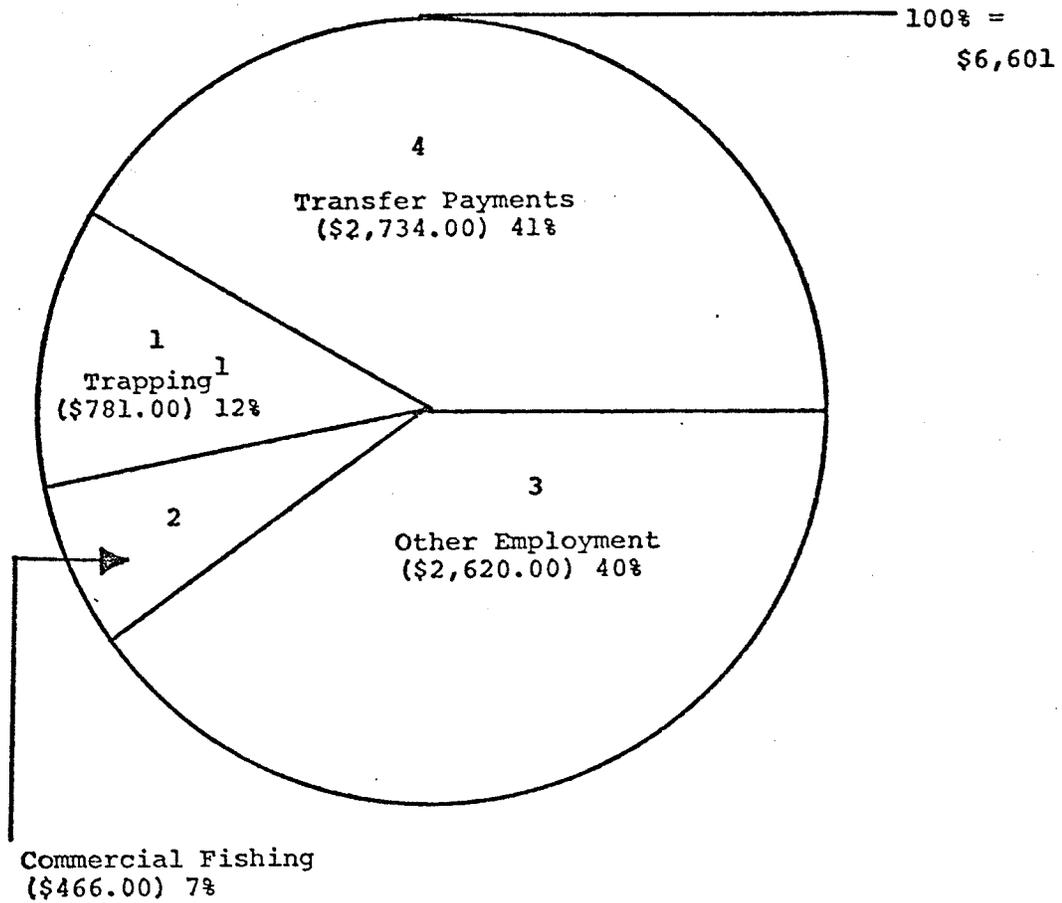
(44%) of the total sample received between \$3,000 - \$6,999 in gross income from all sources. For the individual local fur councils the percentage of trappers sampled that received \$3,000 - \$6,999 in gross income from all sources varied from 53% at Cross Lake, 60% at Tadoule Lake to 36% at The Pas. At Porcupine-Barrows the majority of trappers sampled (33%) received between \$7,000 - \$9,999 in gross income from all sources.

#### SOURCES OF EMPLOYMENT AND GROSS INCOME FROM ALL SOURCES

The sources and duration of employment and gross income from all sources, excluding income in kind for 1974-1975 were calculated for the fifty-nine trappers interviewed. The results of the calculations are presented in Appendix 11, Table 2, and Figure 9 on the following page. Figure 9 indicates that for the total sample the total average gross income from all sources of employment plus income in kind was \$7,926 and that the total average number of weeks employed at all occupations was 33.

Figure 9 also indicates that for the total sample trappers spent relatively equal amounts of time at primary producing activities and other employment; 17 weeks and 16 weeks respectively. Other employment includes activities such as forest fire fighting and local construction projects.

FIGURE 9  
AVERAGE 1974-1975 GROSS INCOME BY  
SOURCE<sup>1</sup> (IN DOLLARS AND PERCENTAGES)  
FOR THE TRAPPERS SAMPLED



1. Average duration of time spent trapping (14 weeks).
2. Average duration of time spent commercial fishing (3 weeks).
3. Average duration of time spent at other employment (16 weeks).
4. Average duration of time unemployed (19 weeks).

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management Wild Fur Production Statistics, 1974-1975.

1. Excludes Income in kind.

Table 11 below indicates the duration of employment and 1974-1975 gross weekly earnings for the total sample. In Appendix 11, Table 3, the duration of employment and gross weekly earnings are presented for the individual local fur councils.

Table 11. Duration of Employment (In Weeks and Percentage of Year) and Average Gross Weekly Earnings (In Dollars) for the Trappers Sampled

<u>Type of Employment</u>	<u>Duration of Employment</u>		<u>Average gross weekly earnings (\$)</u>
	<u>Weeks</u>	<u>Percentage of year</u>	
Trapping	14	27%	\$ 56.00 <sup>1</sup>
Commercial Fishing	3	6%	\$155.00 <sup>2</sup>
Other Employment	16	31%	\$164.00
Sub Total	33	64%	
Unemployment	19 <sup>3</sup>	36%	
Total	52	100%	

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management, Wild Fur Production Statistics 1974-1975.

1. Excludes income in kind.
2. Average gross commercial fishing income was calculated by adding the average gross income from trapping, other employment and transfer payments and subtracting this figure from total gross income.
3. Total duration of unemployment was calculated by subtracting the duration of all employment from the number of weeks in a year.

Table 11 indicates that the trappers sampled spent a considerable period of time underemployed or unemployed through the year. For example, the trappers sampled are unemployed for 36% of the weeks in a year.

#### Discussion of Sources of Employment and Gross Income

The discussion of sources of employment and gross income pertains primarily to other employment. A discussion of the factors influencing the gross income and time spent trapping is presented in this chapter under the section entitled Discussion of Statistically Significant Variables and Discussion of Income Changes. A detailed discussion of the factors affecting gross income and duration of time spent commercial fishing is presented in the practicum by D. Johnston entitled An Evaluation of Canada-Manitoba Special ARDA Program of Assistance To Commercial Fishermen.<sup>3</sup>

Discussions with the trappers sampled indicated that the reason for the relatively high average gross income from other employment for Porcupine-Barrows and The Pas local fur councils is their location close to urban centres and alternate wage employment. For example, many of the trappers inter-

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<sup>3</sup>D. Johnston, An Evaluation of the Canada-Manitoba Special ARDA Program Of Assistance To Commercial Fishermen, Winnipeg, Natural Resource Institute, University of Manitoba, 1976.

viewed at Porcupine-Barrows are employed by the Manitoba Department of Mines, Resources and Environmental Management as conservation officers, forest fire fighters and general labourers for the summer months. At The Pas many of the trappers interviewed were employed on a yearly basis by the band council as skilled tradesmen or general labourers at the Oniteka Mall construction project and/or at other band projects for the summer months. The availability of alternate employment explains the low average number of weeks of unemployment. In turn, the lack of receipt of unemployment insurance benefits accounts for the relatively low amount of average gross income received from all sources of transfer payments.

Conversely, the reasons for the low average gross income from other employment for Cross Lake and Tadoule Lake was the isolated location of these communities. In these communities discussions with the trappers sampled indicated that there are few opportunities for permanent wage employment. The alternate wage employment that did exist was of a seasonal nature, mostly in the summer months, and dependent upon federal and provincial grants for local construction projects. The lack of alternate employment opportunities is a possible explanation for the high average number of weeks of unemployment and, in turn, the receipt of unemployment insurance benefits explains the relatively high amount of transfer payments

from all sources.

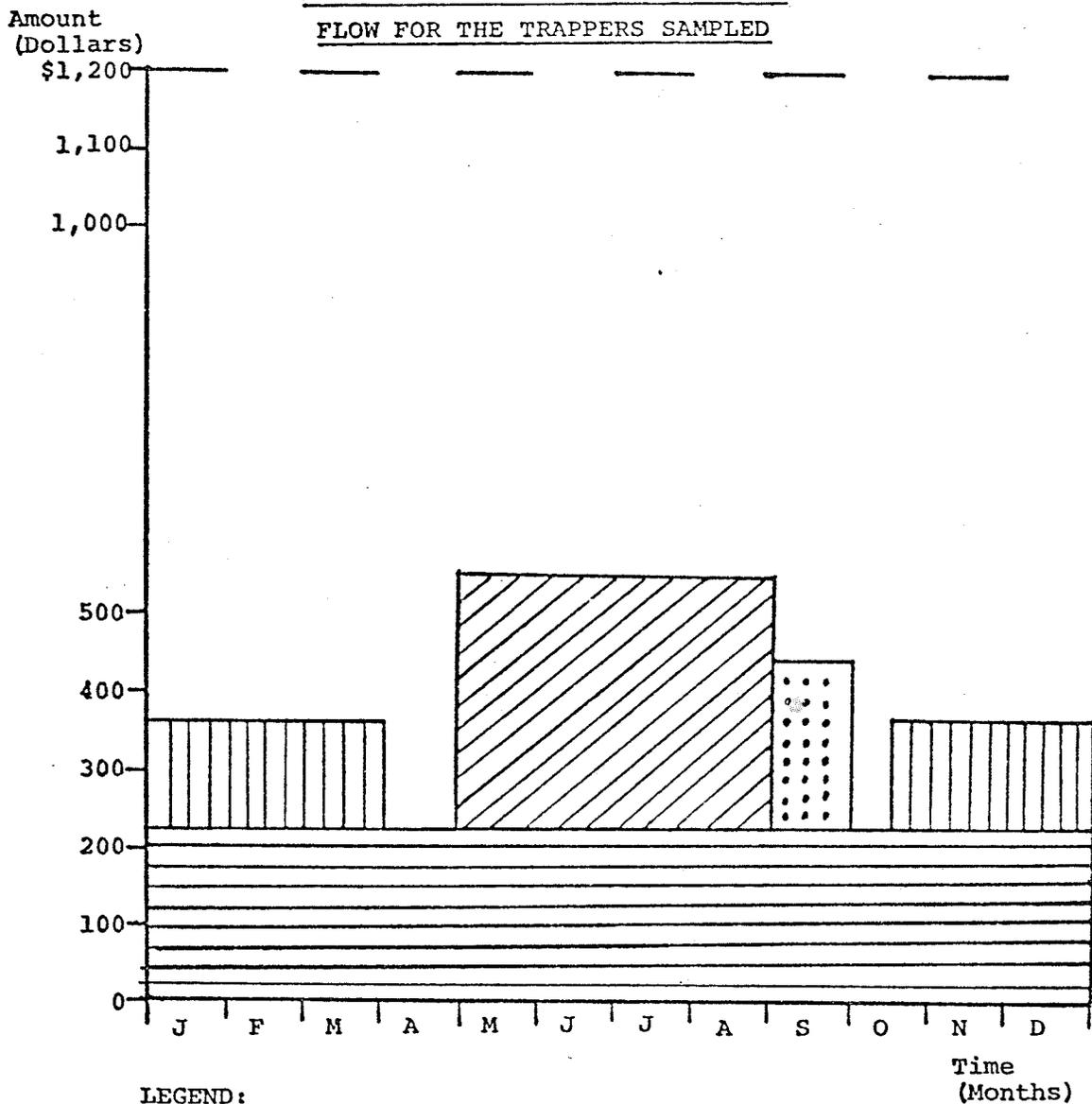
The availability, type and duration of employment indicates the cyclical nature of the yearly cash flow for all the trappers sampled. The approximate yearly cash flow for the trappers sampled is illustrated in Figure 10. For the total sample a general trend was evident. During the trapping season (mid-October to March) gross income would reach a certain level. In the interim between the trapping season and the summer months (May to September) gross income declined. During this period gross income can be derived from commercial fishing or transfer payments. During the summer months, when the majority of other employment would occur, gross income rises to a new level. In the interim between the summer months and the trapping season gross income would decline and rise again during the trapping season. It is important to note that transfer payments are received throughout the year and at times were the only income available. Also, it should be noted that questionnaire responses indicated that the majority of transfer payments were in the form of family allowance payments.

#### STATISTICALLY SIGNIFICANT VARIABLES

From the original list of twenty-nine variables hypothesized to have the most affect on trapping income twenty

FIGURE 10

APPROXIMATE AVERAGE YEARLY CASH  
FLOW FOR THE TRAPPERS SAMPLED



LEGEND:

-  Transfer Payments
-  Gross Trapping Income (excludes income in kind)
-  Gross Income from Other Employment
-  Gross Income from Commercial Fishing
-  Average Canadian Income of a Family, 1974

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management Wild Fur Production Statistics 1974-1975 and Statistics Canada Income Distribution By Size in Canada, Preliminary Estimates 1974, 13206, p. 5.

were selected for use in the regression analysis (see Appendix 11, Table 4). Due to incomplete or absent information given in the questionnaire responses or the absence of wild fur production statistics for 1974-1975 only data from forty-six of the fifty-nine questionnaires was used for the regression analysis. Use of the regression analysis indicated that four variables positively affected gross trapping income (see Appendix 11, Table 5). None of the variables had a negative affect on gross trapping income. The four variables positively affecting gross trapping income all other factors held constant and in order of importance were:

1. Category (long and short hair) of fur bearing animals trapped.

The regression analysis indicated that trappers belonging to the local fur councils that accounted for the majority of its production from short hair fur bearing animals made the greatest amount of money from trapping.

2. The total value of trapping equipment. The average purchase value and the time of purchase of trapping equipment are presented in Appendix 11, Table 7.
3. Duration of time spent trapping. The analysis indicated that the average duration of time spent trapping in the six month trapping season was fourteen weeks (see Table 10).
4. Age of trappers. The analysis indicated that the average age of trappers was fifty years.

Two of the above variables had a positive affect on

net trapping income (see Appendix 11, Table 6). In order of importance and all other factors held constant the two variables were category of fur bearer and age of trappers. None of the above variables had a negative affect on net trapping income.

### Discussion of Statistically Significant Variables

The discussion of the four variables that the regression analysis indicated were statistically significant is present in the order previously stated.

#### 1. Category of Fur Bearer Trapped

The category of fur bearer trapped is a statistically significant variable affecting gross and net trapping income. Since trappers belonging to the local fur councils that accounted for the majority of production from short haired fur bearing animals made the most money from trapping it follows that to increase trapping income trappers should trap short haired fur bearers. Trapping income, however, is not solely dependent upon category of fur bearer trapped. Other factors such as the biological resource base, number of weeks trapped, age of the trapper, the equipment a trapper has and the managerial ability of the trapper must also be considered. When these other factors are held constant use of the regression analysis indicated that the local fur councils with predom-

ately short hair fur production made \$714.00 more in gross trapping income or \$702.00 more in net trapping income than the local fur council with predominately long hair fur production.

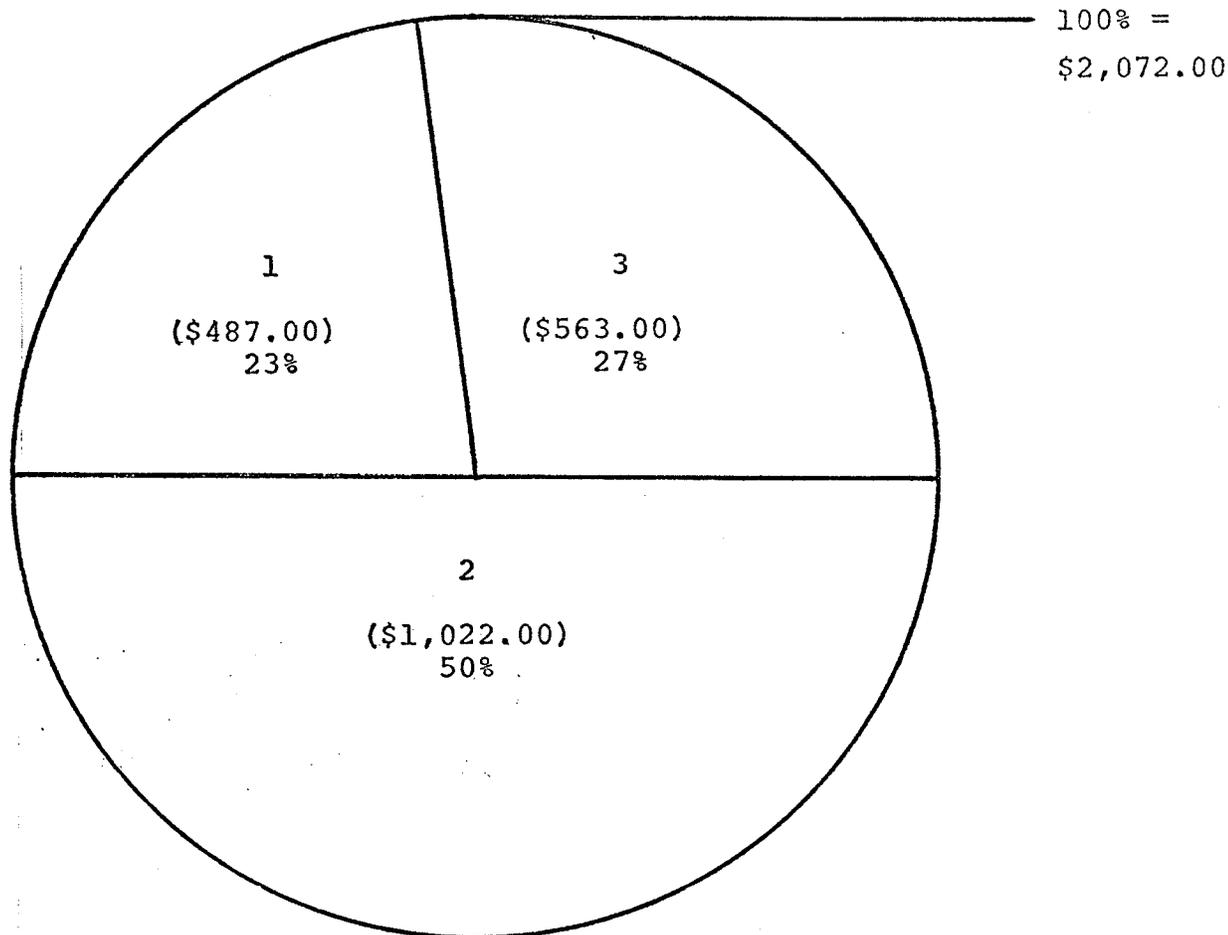
## 2. Purchase Values of Trapping Equipment

Figure 11 indicates that for the total sample 50% of the total average purchase value of trapping equipment (\$2,072) was granted through the Special ARDA Program. The average purchase value of trapping equipment purchased before the receipt of Special ARDA assistance refers to the original purchase value of trapping equipment that is presently in use. For the total sample the average purchase value of trapping equipment purchased before receipt of Special ARDA assistance was \$487 or 23% of the total average purchase value of trapping equipment. The average purchase value of trapping equipment purchased after the receipt of Special ARDA assistance was \$563 or 27% of the total average purchase value of trapping equipment. The average purchase values of trapping equipment for the individual local fur councils are presented in Appendix 11, Table 7.

Figure 11 indicates that Special ARDA assistance supplemented the existing equipment of the trappers sampled. Since assistance has been offered individual trappers have

FIGURE 11

PURCHASE VALUES (IN DOLLARS AND PERCENTAGES)  
OF TRAPPING EQUIPMENT FOR THE TRAPPERS SAMPLED



1. Purchase value of trapping equipment purchased before receipt of Special ARDA assistance.
2. Purchase value of trapping equipment received from Special ARDA.
3. Purchase value of trapping equipment purchased after receipt of Special ARDA assistance.

SOURCE: Compiled from questionnaire responses.

initiated further investment in trapping equipment. There are two possible explanations for the further investment in trapping equipment. The first explanation can be attributed to the type of assistance received from the Special ARDA Program. Discussions with the trappers interviewed indicated that equipment grants have enabled the trappers to reduce total trapping operating expenses and given the changes in trapping income it follows that a proportion of the increase in trapping income could be saved for reinvestment in trapping equipment.<sup>4</sup> The second explanation is that income from other employment has been used for the purchase of trapping equipment. This explanation is considered to be most probable as the income earned from trapping would be consumed by the trapper and his family during the six month trapping season.

Use of the regression analysis indicated that a trapper could earn an additional \$0.47 in gross trapping income on each additional dollar of trapping equipment purchased; all other factors held constant. It is important to note, however, that there is a point of marginal diminishing returns. This factor is discussed in the following section on duration of time spent trapping.

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<sup>4</sup>Information regarding operating expenses for trappers in 1973-1974 was not collected for the evaluation.

### 3. Duration of Time Spent Trapping

The analysis of questionnaire responses indicated that out of a possible twenty-six week trapping season the average duration of time spent trapping was fourteen weeks. Use of regression analysis indicated that, for each additional week spent trapping, a trapper could earn an additional \$23.00 in gross trapping income; all other factors held constant. From this information it follows that to increase trapping income a trapper could increase the duration of time spent trapping.

Again, however, other factors must be considered. Trappers receive the most money for their pelts when they are in prime.<sup>5</sup> In general different fur is in prime at different times of the trapping season. Two examples are wild muskrat and beaver pelts; two of the three major fur bearers trapped in Manitoba. Muskrat fur is in full prime from early March to mid April and beaver fur is in full prime from early January to mid March. However, the Trapper Education section of the Manitoba Department of Mines, Resources and Environmental Management notes that:

Not all trapping can be done while Wild Furs are at

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<sup>5</sup>Prime refers to the length and density of the hair on the fur bearer.

their peak of prime and the question that arises is when if there is a choice between trapping before full prime or after full prime then we would like to tell you that there is a tremendous difference in value on furs that are trapped one or two weeks before they reach full prime or one or two weeks after they pass full prime.<sup>6</sup>

As an example of the above statement the Trapper Education section notes that when wild mink, which is the third major fur bearer trapped in Manitoba, is past prime its value can differ by up to 50%.<sup>7</sup> Further, it is stated that, "trappers are much further ahead if they make an effort to harvest their fur crop slightly before these furs are fully prime rather than after they are over-prime."<sup>8</sup>

Two other factors should also be considered in a discussion of trapping income. First, the biological resource base or supply and quality of fur bearers is subject to seasonal fluctuations. Second, the wild fur market, which determines the price a trapper receives for his pelts, also fluctuates. Given the discussion on the role of prime fur pelts, the biological resource base and the wild fur market

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<sup>6</sup>Manitoba Department of Mines, Resources and Environmental Management, Lands Forest and Wildlife Resources Operational Policy Br., Trapper Education Fur School, no date, p. 3.

<sup>7</sup>Ibid.

<sup>8</sup>Ibid.

trappers, like other primary producers, operate in a climate of uncertainty regarding supply and prices. As a result a trapper reaches a point when trapping effort and returns become marginal.

#### 4. Age of Trappers

The age of trappers was a statistically significant variable effecting gross and net trapping income. The regression analysis indicated that for each additional year of age a trapper can earn an additional \$23.00 gross trapping income or an additional \$21.00 net trapping income; all other factors held constant. This finding is consistent with Ramsay's finding that, "Trappers 56 years of age and over earned the highest net income (including income in kind) from trapping averaging \$257/trapper."<sup>9</sup>

#### PRESENT STATUS OF SPECIAL ARDA TRAPPING EQUIPMENT

The present status of trapping equipment is one indicator of a trappers attitude towards maintenance of his trapping equipment. The present status of Special ARDA trapping equipment was calculated from questionnaire responses (see Table 12). Table 12 indicates that for the total sample 87% of the various types of trapping equipment granted were

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<sup>9</sup>B. Ramsay, op. cit., p. 42.

Table 12. Present Status of Special ARDA Trapping Equipment, In Percentages

<u>Present Status of Equipment</u>	<u>Percent for Total Sample</u>	<u>Percentages for councils selected</u>			
		<u>Cross Lake</u>	<u>Porcupine- Barrows</u>	<u>Tadoule Lake</u>	<u>The Pas</u>
Presently in use	87	100	100	78	76
Not in use:					
Lost	4	0	0	2	13
Stolen	0	0	0	0	0
Sold	3	0	0	7	2
Inoperative	1	0	0	0	2
Traded in	1	0	0	0	7
Transferred	3	0	0	9	0
Improperly shared	1	0	0	4	0
Total	100%	100%	100%	100%	100%

SOURCE: Compiled from questionnaire responses.

presently in use. The remaining equipment had either been lost (4%), sold (3%), transferred (3%), improperly shared (1%), traded (1%), or inoperative (1%). At Cross Lake and Porcupine-Barrows local fur councils 100% of the equipment granted was presently in use. At Tadoule Lake 78% of the equipment granted was presently in use. For The Pas this figure was 76%. The Pas had the highest percentage of equipment that had been lost (13%) and traded in (7%). Tadoule Lake had the highest percentage of equipment that had been sold. None of the trappers interviewed indicated that any of the trapping equipment granted by the Special ARDA Program had been stolen.

Discussion of Present Status of Special ARDA Trapping Equipment.

Discussions with the trappers sampled at The Pas indicated that the equipment lost was traps. The reason for the loss of traps was an early spring thaw. As a result of the early spring thaw ice conditions did not permit trapping areas to be reached by snowshoe, snowmobile or boat. In turn, those traps that had been set prior to the spring thaw were swept away by the movement of ice and later sank to the bottom of the lake, stream, or marsh.

The general operating guidelines and administrative

procedures of the Special ARDA Agreement do specify a policy regarding trapping equipment that is traded in. When ministerial approval to a contract between the Special ARDA Program and local fur council is given the trapping equipment granted becomes the legal property of the individual the equipment has been granted to. The use and disposition of the trapping equipment is then up to the discretion of the individual trapper. If the local fur council decides that the equipment granted is not being properly used, or not used at all, they can confiscate the equipment and reallocate it to another member(s) of the local fur council. Such a situation, however, rarely occurs.<sup>10</sup>

The piece of trapping equipment that was traded in at The Pas was a snowmobile. The trapper indicated he had done this to receive a better deal on a new snowmobile.

At Tadoule Lake one trapper, who said his age did not permit him to trap as much as he used to, sold a portion of the trapping equipment he received from Special ARDA to another member of the local fur council. One trapper indicated he had transferred his trapping equipment to his son to enable him to trap. Also, at Tadoule Lake, as was the case at

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<sup>10</sup>Personal interview, A. Miles, Program Analyst, Special ARDA Branch, Manitoba Department of Northern Affairs, March, 1975.

several other local fur councils, trapping equipment was granted to groups of two to four trappers to be equally shared. One trapper interviewed at Tadoule Lake indicated that the equipment granted was not being properly shared. Matters such as the sale, transfer or sharing of trapping equipment received from the Special ARDA Program are decided upon in consultation with the individual trappers, the local fur council and administrators of the Special ARDA Program.

#### CARE OF TRAPPING EQUIPMENT

The care of trapping equipment was another indicator of a trappers attitude towards maintenance of his trapping equipment. The percentage of trapping equipment that was covered was calculated from questionnaire responses (see Table 13). The methodology for calculating care of trapping equipment is presented in Appendix 6. Table 13 indicates that 54% of the total sample covered 76% - 100% of their trapping equipment. At Porcupine-Barrows 67% of the trappers were in this range followed by Cross Lake (53%), Tadoule Lake (47%), and The Pas (47%) respectively. Eight percent of the total sample covered none of their trapping equipment. This figure was highest at Tadoule Lake (20%) followed by Porcupine-Barrows (7%), The Pas (7%), and Cross Lake (0%) respectively.

Another indicator of a trappers attitude towards maintenance of his trapping equipment was his desire and will-

Table 13. Percentages of Trapping Equipment Protected for the Local Fur Councils Selected.

<u>Percent of Equipment Protected</u> <sup>1</sup>	<u>Percent for Total Sample</u>	<u>Percentages for councils selected</u>			
		<u>Cross Lake</u>	<u>Porcupine-Barrows</u>	<u>Tadoule Lake</u>	<u>The Pas</u>
No Equipment Protected	8	0	7	20	7
1% - 25% of Equipment Protected	9	7	6	6	20
26% - 50% of Equipment Protected	12	13	13	7	13
51% - 75% of Equipment Protected	17	27	7	20	13
76% - 100% of Equipment Protected	<u>54</u>	<u>53</u>	<u>67</u>	<u>47</u>	<u>47</u>
Total	100%	100%	100%	100%	100%

SOURCE: Compiled from questionnaire responses.

1. Equipment eligible for protection includes snowmobiles, outboard motors, conibear and leghold traps, bombardiers, trucks, and tractors. Boats and canoes were not included due to an inconsistency in interviewing techniques.

ingness to pay for the services of a qualified mechanic (see Table 14). Table 14 indicates that 73% of the trappers interviewed want to have a qualified mechanic in their community and that 68% of the trappers interviewed are willing to pay for the services of a qualified mechanic.

#### Discussion of Care of Trapping Equipment

The trapping equipment considered for the calculations on the percentage of trapping equipment that was covered included snowmobiles, outboard motors, conibear and leghold traps, bombardiers, trucks and tractors. Boats and canoes were not included in the calculations due to inconsistent interviewing techniques. It is important to note that no on site inspection of trapping equipment occurred due to the time and budget limitations on the evaluation.

The services of a qualified mechanic were available to trappers in Cross Lake, Porcupine-Barrows, and The Pas. Many of the trappers interviewed in these local fur councils and at Tadoule Lake commented that they repaired their own equipment and only took their equipment to a qualified mechanic when they could not make the necessary repairs. Also, many of the trappers commented that the price the local mechanic charged for repairs was too high. There is no qualified mechanic at Tadoule Lake. Trappers at Tadoule Lake must either repair their own equipment or, when this can not be

Table 14. The Desire and Willingness To Pay for a Qualified Mechanic (In Percentages)

	<u>Percentages for councils selected</u>				
	<u>Percentage of total sample</u>	<u>Cross Lake</u>	<u>Porcupine-Barrows</u>	<u>Tadoule Lake</u>	<u>The Pas</u>
Desire qualified mechanic	73	53	47	100	93
Do not desire qualified mechanic	<u>27</u>	<u>47</u>	<u>53</u>	<u>0</u>	<u>7</u>
Totals	100%	100%	100%	100%	100%
Willing to pay for qualified mechanic	68	46	40	93	93
Not willing to pay for qualified mechanic	<u>32</u>	<u>53</u>	<u>60</u>	<u>7</u>	<u>7</u>
Totals	100%	100%	100%	100%	100%

SOURCE: Compiled from questionnaire responses.

done, send it by air to Thompson or Churchill.

In remote communities such as Tadoule Lake one impact of the lack of maintenance services has been the increased downtime and high freight costs for replacement parts for mechanized equipment. As a result the individual trappers production costs increase. Moreover, it should be noted that much of the mechanized equipment used by trappers was not designed for primary producing purposes. This factor contributes to the short life span of mechanized trapping equipment.

#### ADDITIONAL USES OF TRAPPING TRANSPORTATION EQUIPMENT

The additional uses of trapping transportation equipment were determined from questionnaire response. The results of the calculations are presented in Appendix 11, Table 8. Table 8 in Appendix 11 indicates that the frequency of all the additional uses of trapping transportation equipment varied among the local fur councils. However, the additional use that was cited most frequently by the trappers interviewed was domestic hunting and/or fishing. The trapping transportation equipment that was used for these additional uses, in order of frequency cited, were snowmobiles, canoes, outboard motors, and boats.

Discussion of Additional Uses

Regarding the additional uses of trapping transportation equipment it is important to remember that trapping does not provide income or employment for an entire year. To supplement their income from trapping, trappers allocate their primary producing transportation equipment to additional uses.

The fifty-nine trappers interviewed used their trapping transportation equipment for various uses. For example, a trapper could use his snowmobile or boat for domestic hunting and/or fishing, hauling wood and/or water, recreation or shopping. The additional uses of transportation equipment provide benefits that are economic and social in nature. Economic additional uses include personal hunting and/or fishing, commercial fishing, hauling wood and/or water and other uses. As a consequence of these additional uses the trappers interviewed were able to supplement their trapping income. This was done with the income in kind associated with personal hunting and/or fishing and the income from the sale of fish and other uses such as hauling freight or guiding.

With respect to the additional use of hauling wood and/or water there were two options. One, the trappers interviewed could have paid someone else to haul wood and/or water for them or they could use their trapping transport-

ation equipment to haul wood and/or water for themselves. The latter option represents an opportunity cost, that is, the money saved by hauling wood and/or water themselves could be used for other purposes. In this sense the additional use of trapping transportation for hauling wood and/or water helped supplement the income derived from trapping.

Social additional uses of trapping transportation equipment include shopping, visiting friends within and outside the community and recreation. In turn, this would result in a decrease in total income. The social uses of trapping transportation equipment allowed increased social interaction within the communities and facilitated mobility inside and outside the communities sampled; especially in the remote communities where transportation within and outside the community is difficult.

The intense use of transportation equipment in an economic or social mode, however, may increase maintenance costs and decrease the economic usefulness of the piece of equipment. Hence, the individual trapper must decide what activities will result in the best use of his transportation equipment.

#### PROBLEMS IDENTIFIED BY THE TRAPPERS SAMPLED

The evaluation found that trappers sampled were concerned about a variety of issues that frustrated their attempts

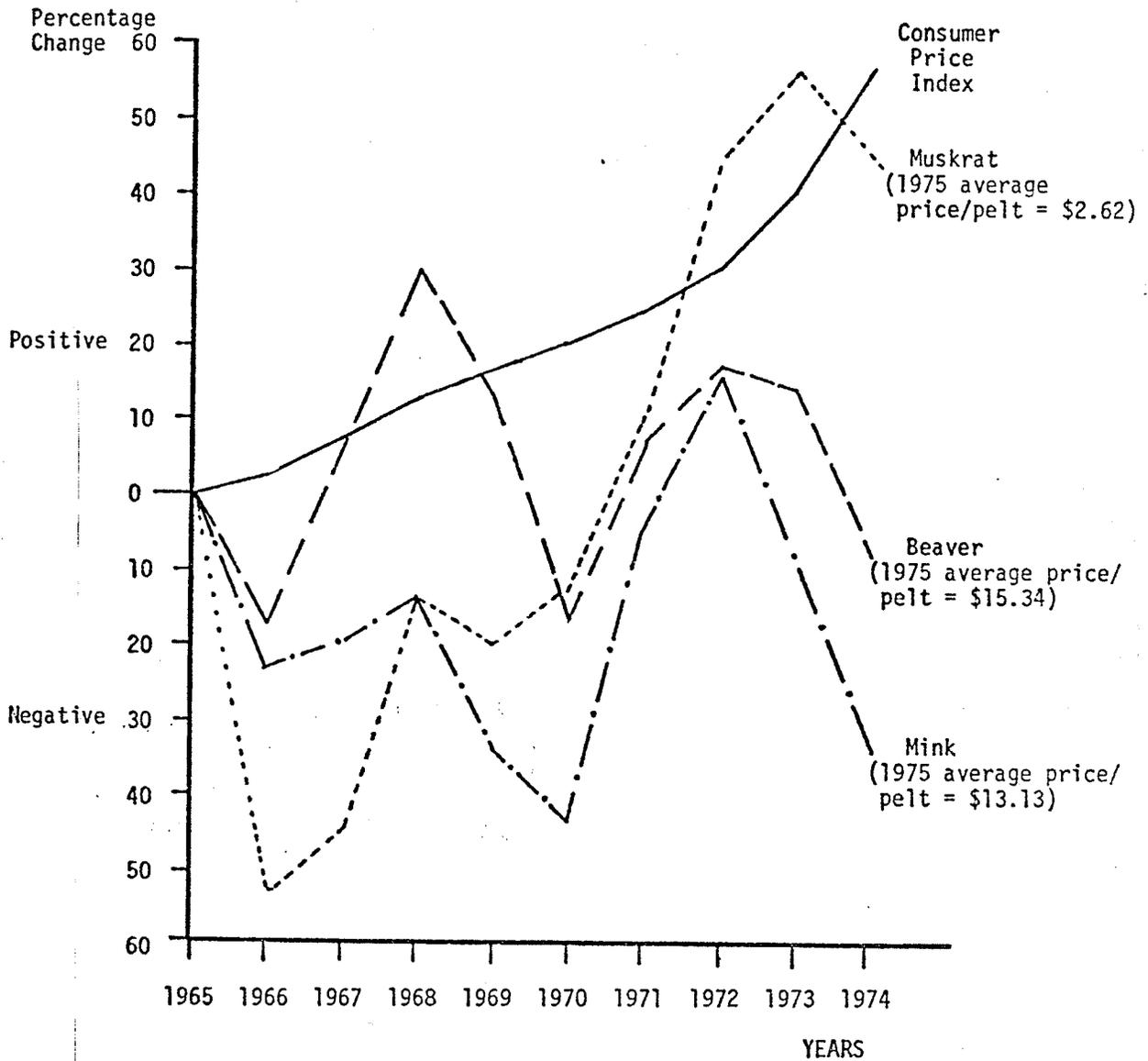
to improve their incomes (see Appendix 11, Table 9). For example at Cross Lake and Porcupine-Barrows the problem most frequently mentioned was the low price of pelts relative to increasing capital and operating costs. At The Pas the major problem identified was the need for a helper. At Tadoule Lake the trappers interviewed identified the irregular supply of gasoline as the major problem.

#### Discussion of the Problems Identified

While the frequency of problems that were identified varied among the local fur councils the major concern of the sample group focused on increasing operating and capital costs and low product prices. The consensus was that trappers, like other primary producers, are faced with a continuing problem related to a cost-price squeeze. The trappers situation is outlined in Figure 12. Figure 12 indicates that the price of furs have not increased at the same rate as operating and capital costs (indicated by the consumer price index). However, this is a problem that is beyond the control of the individual trapper and the administrators of the Special ARDA Program.

Several of the other problems identified by the trappers are also beyond the control of the administrators of the Special ARDA Program. Also, some of these problems are under

Figure 12 Percentage Change in the Price of Beaver, Mink and Muskrat Pelts and the Consumer Price Index Relative to 1965.



Source: Department of Mines, Resources and Environmental Management, Wild Fur Production Statistics 1965 - 1974 and Statistics Canada, Price and Price Indexes, Ottawa, (62-002) 1975.

the jurisdiction of other provincial and federal government programs. For example, in The Wild Fur Program materials for trappers to repair cabins on their traplines and funds for "grubstaking" trappers are to be provided. A second example is the compensation given to trappers of the Cross Lake area by Manitoba Hydro for flooding caused by the construction of a dam downriver from the community. A third example is the irregular supply of gasoline at Tadoule Lake. At Tadoule Lake gasoline, along with food supplies, is flown in by the federal government Department of Indian Affairs and Northern Development on a monthly basis from Churchill.

#### EQUIPMENT REPLACEMENT

The federal taxation system of capital cost allowance calculations and of the depreciation systems developed by the Manitoba Department of Mines, Resources and Environmental Management for commercial fishing equipment were examined to determine their effects on the issue equipment replacement. The examination revealed two findings related to the issue of equipment replacement by trappers. They were:

1. The present capital cost allowances for types of equipment used by commercial fishermen and trappers as established by the Income Tax Act does not recognize the actual depreciation costs incurred by commercial fishermen and trappers. Factors present in remote communities contribute to high depreciation costs for trapping equipment. All of

these costs cannot be deducted for income tax purposes because of the low capital cost allowances resulting in added costs to a producer's operation.

2. Due to the short life span of equipment a producer is faced with the problem of equipment replacement at high cost over short periods of time. Complicating this problem are the income findings which indicated that trappers did not earn sufficient income from trapping to provide for:
  - a) A reasonable standard of living; and,
  - b) A saving fund for the replacement of equipment.

These findings are important because 92% of the trappers sampled indicated that they intended to continue trapping. To overcome these constraints to equipment replacement the following straight line procedure for depreciating primary producing equipment was developed:

1. For the first two years of operation, primary producing equipment be depreciated at a rate of 30% of the capital cost per annum. Thirty percent is a constant rate for all types of primary producing equipment.
2. For the third year and every year thereafter the depreciation rate be calculated by:
  - a. Determining the average life of the primary producing equipment (see Table 15).
  - b. Determine the depreciation rate as follows: one divided by the average life span of the piece of primary producing equipment. For example, the average life span of a snowmobile used for trapping is five years. The depreciation rate would be  $1 \div 5 = 1/5$  or .2.
  - c. To achieve a constant capital cost multiply

Table 15. Depreciation Rate and Average Life Span of Trapping Equipment By Years of Trapping Equipment

<u>Type of Equipment</u>	<u>Average Life Expectancy (years)</u>	<u>Rounded Average (years)</u>
Canoe	10.92	11
1. Woodstrip	12.09	12
2. Fiberglass	9.31	9
Snowmobile	4.86	5
Traps	12.34	12
1. Conibears	11.44	11
2. All Others	12.92	13
Outboard Motors	5.84	6
Chainsaw	15.00	15
Sleigh	5.40	6
Boat	16.80	17

SOURCE: Compiled from questionnaire responses.

the third year value of primary producing equipment by the depreciation rate and subtract the resulting value from the yearly value of equipment until it reaches zero.

### Discussion of Equipment Replacement

The suggested depreciation schedule was developed for both commercial fishing and trapping equipment. The following discussion, however, relates the depreciation system only to trapping equipment.

The depreciation system was based on three assumptions. They were:

1. Trappers properly store and care for their trapping equipment;
2. Trappers operate their trapping operations with a minimum of business managerial ability; and,
3. Some of the equipment used for the purpose of trapping (for example, a snowmobile) has a short "life" span.

With respect to the last assumption, discussions with government personnel and trappers indicated there are several possible explanations for the short "life" span of trapping equipment.<sup>11</sup> Some of the explanations include:

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<sup>11</sup>For the evaluation the average life span of primary producing equipment was calculated from questionnaire responses and is based on the three stated assumptions. The Natural Resource Institute's suggested system of depreciation was not used in these calculations. Rather a declining balance depreciation schedule was used. The Natural Resource Institute's depreciation schedule is only a suggested schedule.

1. The terrain of northern Manitoba, where many local fur councils are located, is extremely rugged;
2. The frequency and intensity of trapping equipment is great; and,
3. The climatic conditions are severe in northern Manitoba.

The federal system was designed to estimate a cost allowance per year on equipment. This depreciation system allows the major proportion of the equipment's value to be depreciated in the first few years with diminishing costs over the remaining years. The federal system, however, does not allow the northern trapper to completely depreciate his capital costs before the trapping equipment is no longer of productive use. Consider the example of a snowmobile. A snowmobile deteriorates most during the first few years of use and it may only last for those first few years.

The Manitoba Department of Mines, Resources and Environmental Management system of depreciation utilizes a constant rate of depreciation based on the average number of years life expectancy of commercial fishing equipment. The difficulty with this system, however, is that very little equipment can be said to have a depreciating cost that is constant over the years. For example a snowmobile that is four years old will not have the same cost allowance as a brand new snowmobile purchased for \$1,000. On the other had, the

Manitoba Department of Mines, Resources and Environmental Management equalize the high capital costs of commercial fishermen (and trappers).

The suggested depreciation schedule was designed to incorporate the advantages of both the federal and the Manitoba Department of Mines, Resources and Environmental Management depreciation systems.

Thirty percent was used as the depreciation rate for the first two years to allow trappers to depreciate a large amount of the initial capital cost of trapping equipment in a short time period. By depreciating a large amount of the initial capital cost of the piece of equipment in the first two years provides a tax incentive for the trapper to maintain his equipment; for as the life span of a piece of trapping equipment increases so do the net returns gained from the use of that equipment. In other words this rate of depreciation would allow a trapper to obtain the majority of his returns from his capital investment before the equipment is no longer productive.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### INTRODUCTION

The purpose of this chapter is to present a summary of the findings of the evaluation, the conclusion resulting from the evaluation and recommendations regarding further research and the Special ARDA Program.

### SUMMARY

In summary the major socio-economic findings of the evaluation were as follows:

#### 1. Income

- a) Sixty-eight percent (68%) of the trappers sampled indicated their trapping income had increased and that the increase could be attributed to the receipt of Special ARDA assistance. The average gross trapping income for the trapper sampled increased by 44%.
- b) The average income from all sources (excluding income in kind) for the trappers sampled was \$6,601.00 and was derived from trapping (12%), commercial fishing (7%), transfer payments (41%) and other types of employment (40%); and,
- c) The average income in kind per trapper was \$1,324.00. When income in kind was added to the average gross income derived from trapping (\$781.00) the average total gross trapping income was \$2,106.00. Income in kind comprised 66% of the average total gross trapping income.

2. Significant Variables Effecting Trapping Income

Through the use of regression analysis it was determined that the most important socio-economic variables contributing to trapping income were:

- The biological resource base;
- The level of investment in trapping equipment;
- The effort expended; and,
- The experience of a trapper.

3. Additional Uses of Transportation Equipment

Transportation equipment enabled trappers to:

- a) Earn additional income from other activities;
- b) To harvest natural foods which have an economic value that is significant to family income; and,
- c) To increase mobility for social activities.

4. Equipment Use and Care

Eighty-seven percent of the trapping equipment granted to the trappers sampled was presently in use. The majority of the equipment granted is being properly stored and cared for.

5. Problems Identified by Trappers

The major concern of the trappers sampled focused upon increasing operating and capital costs and low product prices. The consensus was that trappers are faced with the continuing problem related to a cost-price squeeze.

6. Equipment Replacement

- 1) The present capital cost allowance for types of equipment used by trappers as established by the Income Tax Act does not recognize the actual depreciation costs incurred by trappers; and,
- 2) The majority of trappers do not earn a sufficient income from trapping to provide for a saving fund for the replacement of equipment.

CONCLUSIONS

The conclusions resulting from the Evaluation of the Canada-Manitoba Special ARDA Program of Assistance To Trappers are as follows:

1. Income

- a) Special ARDA assistance to trappers contributed to the increase in the income derived from trapping;
- b) Trappers earn their income from a variety of employment activities; one of which is trapping. Thus, the term "trapper" is misleading; and,
- c) Income in kind is a very significant component of the income derived from trapping.

2. Significant Variables Effecting Trapping Income

- a) Trappers can increase the income derived from trapping by trapping short haired fur bearing animals.

3. Additional Uses of Transportation Equipment

- a) Special ARDA assistance has allowed trappers to earn additional income from other employment activities and to harvest natural foods (income in kind).

4. Equipment Use and Care

- a) Trappers show a positive attitude towards equipment use and care.

5. Problems Identified by Trappers

- a) Trappers, like other primary producers, are facing a continuing problem related to a cost-price squeeze. This problem, which has been created by numerous national and international forces (such as those that influence the wild fur market) constrain the amount of income derived from trapping. Moreover, this problem is beyond the control of the individual trapper.

6. Equipment Replacement

- a) A system of depreciation that recognizes the actual depreciation costs incurred by the trappers is needed. Such a system would allow income derived from trapping to be saved for reinvestment in trapping equipment.

RECOMMENDATIONS

The recommendations made, pertain to two areas. They are:

1. Further research; and
2. The Special ARDA Program.

### Further Research

The information generated by this practicum was preliminary in nature. Such an approach has allowed several areas for further detailed research pertaining to the socio-economic effects of the Special ARDA Program of assistance to trappers and the fur industry as a whole to be identified.

In terms of the Special ARDA Program further research is recommended in the following areas:

1. The marginal productivity of the various types of trapping equipment granted through the Special ARDA Program;
2. The actual rate of return or the benefit cost ratio of the capital expenses of trappers in northern Manitoba;
3. The effectiveness of the substitution of mechanized trapping equipment and manual labour in trapping operations; and,
4. The amount of income in kind that a trapper and his family utilize on a yearly basis. This could be achieved by utilizing the method outlined in Appendix 5.

In terms of the fur industry a thorough socio-economic study is warranted. Such a study should determine whether the fur industry is dying, and if so, is this due to changing consumer tastes or because of factors which could be controlled. At the very least, federal-provincial government research is necessary to determine its areas of strength and weakness

and to determine what is necessary to insure the long run viability of the fur industry as well as to improve the income position of the individual trappers.

Regarding the factors of the fur industry that could be controlled further research is recommended in the following areas:

1. The establishment of a fur marketing board. It is important to note that the fur industry is one of the few primary producing industries in which the individual producer is not affected by a regulating body. Such a wild fur marketing board could be similar in its function and administration as the Freshwater Fish Marketing Corporation; and,
2. The revenue resulting from exported pelts which currently goes to the provincial government could be returned to the individual trapper. With regards to this recommendation further research is needed to determine its administrative feasibility. For example, questions such as: How can the present system of recording fur export be adopted to allow the export revenues to be returned to the individual trapper? and, Who should bear the costs of administering this recommendation; the Province or the fur auction houses?

It must be noted that further study of the fur industry and government programs related to the fur industry would be facilitated by improvements in two areas. They are:

1. The recording of wild fur production status for individual trappers. This would enable researchers to accurately measure changes in production for individual trappers and would reduce the amount of time and expense that is allocated to field work.

2. The updating of information on the biological resource base regarding the present rate of utilization of fur bearing animals. One of the areas of weakness of the fur industry is the information on whether the wild fur harvest could be increased and if so by how much.

#### Special ARDA Program

To aid the Special ARDA Program in achieving its social and economic objectives the following recommendations have been suggested.

1. The traditional types of trapping transportation equipment, such as sleighs and harnesses for dog teams could be utilized by trappers residing in remote northern communities. The income characteristics of trappers residing in remote northern communities indicate that this type of assistance would reduce trapping operating expenses and at the same time provide the trapper with a means of harvesting natural foods as well as a means of mobility within and outside the community. Also, trappers in remote northern communities should receive equipment such as fishing nets and canoes which would enable the trapper to supply his dog teams with food.
2. In conjunction with other government departments concerned with the trapping industry, the Special ARDA Program should co-sponsor training courses in the following areas:
  - a) Small motor maintenance and repair. The evaluation findings on equipment care indicate that individuals enrolled in such a course could reduce his trapping expenses as well as provide a service for others in the community; and,
  - b) Basic management principles that are applicable to the individual's trapping business.

Such a course should stress why it is important to keep records of trapping expenses and fur returns and how these items could be recorded.

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A P P E N D I X E S

APPENDIX 1

SPECIAL RURAL DEVELOPMENT AREAS

## PART VI

### SPECIAL RURAL DEVELOPMENT AREAS

.31. The objective of this Part is to carry out a comprehensive rural development program in specially selected rural development areas.

32. These areas will be defined by the Provincial Minister and may be agreed to by the Federal Minister, subject to approval by the Governor-in-Council and the Lieutenant Governor-in-Council, as "Special Rural Development Areas".

Such areas warrant a comprehensive co-ordinated approach to economic and social development because they are subject to widespread low income; have major adjustment problems; and have recognized developmental potentials.

33. A comprehensive rural development program involves the following:

(1) physical, economic, and social studies and investigations necessary to the determination of the development problems and potentials of the area;

(2) the involvement of local people through the establishment of rural development committees or similar bodies;

(3) the preparation of comprehensive rural development plans;

(4) the undertaking of a broad range of projects for the development of the rural development area in conformity with the development plans, to increase income and employment opportunities and raise standards of living as provided below.

34. In order to implement comprehensive development plans, Canada and the Province jointly agree within the framework of general programs and policies, to bring to bear and to co-ordinate the various programs of their respective agencies as may be applicable to the area.

35. When a Comprehensive Rural Development Plan has been

formulated and a Special Rural Development Area has been designated, and the elements of participation by Canada in the plan, under this Agreement, have been approved by the Federal Minister, a separate Program Agreement shall be concluded. Each Program Agreement shall make provision for the implementation of projects within the Comprehensive Rural Development Plan and may include:

(1) any project provided for under other parts of this Agreement;

(2) the application of other federal and provincial programs as states in Section 34;

(3) major developmental projects in conformity with the Comprehensive Plan, other than those provided for in (1) and (2).

36. (1) For projects under Section 35, Subsection (1), the shareable costs will be those provided for elsewhere in this Agreement unless otherwise provided for in the separate Program Agreement.

(2) For projects under Section 35, Subsection (2), the financial arrangements provided for in the pertinent government program will apply.

(3) For projects under Section 35, Subsection (3), Canada's contribution shall be that provided for in the separate Program Agreement for the Special Rural Development Area.

37. (1) Subject to the appropriation of funds by Parliament, Canada will make available a sum not to exceed a total of fifty million dollars over the term of this Agreement for the purpose of assisting the financing of major developmental projects in all provinces, under Subsection (3) of Section 35.

(2) Contributions from this Special Fund for Rural Economic Development may be used to finance major developmental projects under the approved plan having regard to the size and type of such projects, the net benefits to be derived, the contribution to the Canadian economy as a whole and the availability of alternate sources of finance. The terms and conditions of Canada's participation shall be in such form as may be approved by the Governor-in-Council and shall be set forth in the separate Program Agreement.

SOURCE: quoted directly from Federal-Provincial Rural Development 1965-1970, Department of Forestry and Rural Development, Ottawa, 1967, pp. 19-20.

APPENDIX 2

THE SPECIAL ARDA AGREEMENT

C A N A D A

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

A G R E E M E N T

Between:

THE GOVERNMENT OF CANADA

AND

THE GOVERNMENT OF THE PROVINCE OF MANITOBA

Dated:

July 20, 1971

SPECIAL ARDA AGREEMENT

THIS AGREEMENT made in duplicate this 20th day of July, 1971

BETWEEN: THE GOVERNMENT OF CANADA, represented by  
the Minister of Regional Economic Expansion  
(hereinafter referred to as "Canada"),

OF THE FIRST PART,

AND: THE GOVERNMENT OF THE PROVINCE OF MANITOBA,  
represented by the Premier of Manitoba  
(hereinafter referred to as "the Province"),

OF THE SECOND PART,

WHEREAS Canada and the Province recognize that the problems of economic development and social adjustment are particularly acute for people who have previously had little or no access to regular earnings and employment opportunities;

AND WHEREAS Canada and the Province recognize that in certain rural areas of the Province, where these disadvantaged people may include many people of Indian ancestry, special action is required to ensure that they are able to benefit from rural development programmes and projects;

AND WHEREAS Canada and the Province wish to provide for this special action by supplementing the provisions of the General ARDA Agreement dated the 26th day of May, 1971, made under the Agricultural and Rural Development Act. (ARDA), and other relevant programs offered by Canada and the Province;

AND WHEREAS the Governor-in-Council by Order-in-Council P.C. 1971-22/1164 of the 15th day of June, 1971 has authorized the Minister of Regional Economic Expansion to enter into this Agreement on behalf of Canada, and the Lieutenant-Governor-in-Council by Order-in-Council. No.697/71 of the 30th day of June, 1971 has authorized the Premier of Manitoba to enter into this Agreement on behalf of the Province;

NOW THEREFORE, it is agreed by and between the parties hereto as follows:

1. ~~Rural~~ Rural development projects of benefit to disadvantaged people, particularly of Indian ancestry, will be selected from any or all of the following categories:

- (a) The provision of services and facilities which lessen the isolation of remote rural communities so that disadvantaged people have better access to earning and employment opportunities.
- (b) The establishment or improvement of community recreation facilities which will, by implementing a plan or program for the rural area concerned, improve earning and employment opportunities and standards of living for disadvantaged people in remote rural communities. Projects under this paragraph may include the provision of basic infrastructure and, where necessary, the acquisition of land.
- (c) The provision of counselling, training and related services and facilities which are not provided by other Federal-Provincial and Federal manpower programs and which will, by implementing a plan or program for the rural area concerned, prepare disadvantaged people for identifiable earning and employment opportunities. Projects that help disadvantaged people to benefit from improved earning and employment opportunities may take any or all of the following forms:

- (i) counselling and other assistance to persons or families to identify their problems, opportunities and training needs;
  - (ii) costs of instruction and living allowances while training for persons or families, including transportation costs, where such expenses cannot be authorized under other programs;
  - (iii) special assistance for persons moving their families and effects where this will enhance their prospects for employment and where such moves cannot be authorized under the programs;
  - (iv) facilities required for the provision of counselling and training services of the kind referred to in this paragraph.
- (d) The development of viable supplementary or alternative primary producing activities for the purpose of improving marginal or submarginal incomes of disadvantaged people engaged in such activities.
- (e) The establishment, expansion or modernization of any commercial undertaking engaged in the utilization of primary resources, in processing, in manufacturing or in the provision of services, including tourist facilities, provided that
- (i) the undertaking is expressly organized so that at least two-thirds of those employed are disadvantaged people who have previously

had little or no access to regular earning and employment and opportunities; and

- (ii) there is adequate provision for such counselling, training and other adjustment measures as are necessary to the employment of disadvantaged people in the undertaking.

2. Projects approved under this Agreement must be located in an area or areas approved by the Governor-in-Council by reason of the fact that the requirements of rural development include, to a significant extent, improved earning and employment opportunities for disadvantaged people of Indian ancestry.

3. (1) The Ministers signing this Agreement (hereinafter referred to as "the Ministers"), shall jointly establish a Special Committee consisting of at least two representatives each of Canada and of the Province, and at least two representatives of people of Indian ancestry in the Province to be appointed by the Ministers.

(2) The Special Committee shall recommend for approval by the Ministers projects submitted under this Agreement, and shall perform such other appropriate functions, in respect of these projects, as the Ministers may agree.

(3) Projects under this Agreement which are on Indian lands and involve no financial or other assistance by the Province may be approved by the Minister of Regional Economic Expansion on the recommendation of those members of the Committee who are representatives of Canada and of Indians in the Province.

4. Subject to section 7, the costs of projects under paragraphs

(a), (b), (c) and (d) of section 1 will be shared equally by Canada and the Province.

5. (1) For project approved under paragraph (e) of section 1, there must be equity provided by the owner of the undertaking in an amount equal to at least 20% of the expected capital costs as approved by the Minister of Regional Economic Expansion, of the buildings, machinery and equipment of the undertaking.

(2) In computing the amount of equity provided by the owner, the Minister of Regional Economic Expansion may include the value, as approved by him, of any work done by disadvantaged people in the preparation for and construction of the undertaking and of any land, equipment, materials or other supplies provided by or on behalf of the owners of the undertaking.

(3) The costs of the projects referred to under paragraph (e) of section 1 may be the total of

- (a) the costs of studying the opportunity for, investigating the feasibility of, planning and preparing the project,
- (b) the capital costs of establishing, expanding or modernizing the undertaking,
- (c) the initial working capital necessary for the operation of the undertaking,
- (d) the costs of any counselling and training of disadvantaged people as employees, supervisors and managers necessary before the undertaking begins operation, and

- (e) any abnormal operating costs that, for a period of not more than three years from the beginning of operation of the undertaking, arise from the counselling and on-the-job training of disadvantaged people,

less the equity provided in accordance with this section, and less also any financing that is available for the undertaking through other federal and provincial programs and through borrowings from commercial sources.

6. Canada's contribution to the eligible costs listed in sub-section (3) of section 5 may be any or all of the following:

- (a) all of the costs referred to in paragraph (a) of sub-section (3) of section 5, provided that the organization incurring those costs is an organization of people of Indian ancestry, and these costs may be paid directly to the said organization when the Minister of Regional Economic Expansion is satisfied that there is a reasonable possibility that the study, investigation, planning and preparing will lead to an approved project;
- (b) a maximum of 50% of the costs referred to in paragraphs (b) and (c) of sub-section (3) of section 5, and such contributions may be determined and paid directly to the owners of the undertaking in accordance with terms and conditions similar to those of the Regional Development Incentives Act and Regulations;

- (c) 50% of the costs referred to in paragraphs (d) and (e) of sub-section (3) of section 5 in so far as the persons counselled and trained are not Indians and up to 100% of the said costs in so far as the persons counselled and trained are Indians.

7. (1) In the case of projects and Indian lands, or whose benefits relate primarily to Indian lands, and which are implemented by the Province at the request of Indians, Canada may pay up to 100% of the costs incurred by the Province, including the costs of administration.

(2) At the request of the Province, Canada may pay 50% of any additional administrative costs specifically incurred by the Province in implementing projects under this Agreement if:

- (a) the Province makes a substantial contribution towards the cost of these projects, and
- (b) Canada is not requested by the Province, under sub-section (1) above, to pay 100% of the costs of administrative and other related services which may be provided by the Province in connection with projects on Indian lands or whose benefits relate primarily to Indian lands.

8. For purposes of administration, all the terms and conditions of the General ARDA Agreement, except as inconsistent with this Agreement or unless the context otherwise requires, shall be applicable to projects undertaken pursuant to this Agreement.

9. Part or all of Canada's contribution for projects carried out under this Agreement may, where appropriate, take the form of technical and other services provided by P.F.R.A.

10. Expenditures incurred on and after April 1, 1971, may be considered part of the shareable cost of projects approved under this Agreement, but no expenditures incurred before that date shall be shareable under this Agreement. No project under this Agreement shall be approved after March 31, 1975.

11. This Agreement may be amended by joint agreement of the Ministers, subject to the approval of the Governor-in-Council and of the Lieutenant Governor-in-Council.

IN WITNESS WHEREOF this Agreement has been executed on behalf of Canada by the Minister of Regional Economic Expansion and on behalf of the Province by the Premier of Manitoba.

In the Presence of

GOVERNMENT OF CANADA

(SGD) Carmel Carriere  
Witness

(SGD) J. Marchand  
Minister of  
Regional Economic Expansion

PROVINCE OF MANITOBA

(SGD) R. A. Wallace  
Witness

(SGD) Ed. Schreyer  
Premier of Manitoba

APPENDIX 3

SPECIAL ARDA AGREEMENT

GENERAL OPERATING GUIDELINES AND ADMINISTRATIVE PROCEDURES

## SPECIAL ARDA AGREEMENT

### GENERAL OPERATING GUIDELINES AND ADMINISTRATIVE PROCEDURES

#### PART I - GENERAL OPERATING GUIDELINES

##### A. Introduction:

(1) These guidelines have been developed primarily for the use of members of the committee established under the Special ARDA Agreement. They are intended to explain the purposed and intent of the program and to clarify and refine certain provisions of the Agreement. These guidelines are not to be viewed as rigid criteria to be followed regardless of particular circumstances, nor should they be construed as overriding in any way the provisions of the Agreement itself.

##### B. Objective of the Program

(2) The purpose of the Special Agreement entered into under the Agricultural and Rural Development Act is to facilitate the economic development and social adjustment of disadvantaged people in rural areas, particularly those of Indian ancestry, who have previously had little or no access to regular earning and employment opportunities.

##### C. Types of Projects Eligible for Assistance

(3) Assistance under the program will be available to projects which will:

- (a) improve access to earning and employment opportunities for disadvantaged people living in remote rural communities through the provision of required

transportation and communication services and facilities.

Examples of such projects include roads required for the transportation of people to and from jobs, docking facilities needed to expedite the movement of locally produced goods, radio-telephone equipment required in connection with the operation of a local enterprise, or buildings required for the holding of meetings relating to the development or operation of local enterprises or for similar business purposes;

- (b) create employment opportunities and significantly improve standards of living for disadvantaged people living in remote rural communities through the provision of community recreation facilities and related infrastructure including, where necessary, the acquisition of land. These facilities should be provided as part of a plan or program for the area in which the community is located;
- (c) prepare disadvantaged people living in remote rural communities and other rural areas for identifiable earning and employment opportunities through the provision of counselling, training and related services and facilities. Examples would be counselling to individuals or families for the purpose of identifying their problems, opportunities and training needs; instruction and living allowances for families while the head of the family is undergoing training;

and relocation of families where this will enhance their prospects for identifiable employment opportunities.

These services and facilities should be provided as part of a plan or program for the rural area concerned and must not be available under other federal or provincial programs;

- (d) help improve in a specific rural area the general income level of people engaged in marginal or sub-marginal primary producing activities through the provision of assistance to groups or associations. Examples of such projects include farm consolidation or enlargement, improvement or expansion of pastures, improvement of timber stands, and purchase of equipment required to improve fishing, forestry and trapping activities; and
- (e) provide employment opportunities and facilitate access to these opportunities for disadvantaged people living in remote rural communities and other rural areas through the establishment, expansion or modernization of commercial undertakings engaged in the utilization of primary resources, in processing, in manufacturing, or in the provision of services, including commercial tourist facilities. Included as part of these projects may be studies required to identify the opportunity for and feasibility of undertakings, planning and other measures needed to develop the project, and special counselling and training programs required to prepare

disadvantaged people to hold jobs as employees, supervisors or managers before and during a limited period after the undertaking begins operation.

D. Conditions for Assistance

(4) To qualify for assistance, a project must meet certain criteria and conditions. The normal criteria and conditions which will apply to a project in respect of location, purposes of assistance, cost per job created, equity, etc., are described in subsequent paragraphs.

E. Location

(5) The project must be located in a remote rural community or a rural area where there is a significant need to improve earning and employment opportunities for disadvantaged people of Indian ancestry.

(6) To qualify as a remote rural community, a community must be located either,

(a) in that part of the province which lies north of:

(i) the 54th parallel in Alberta,

(ii) the 15th baseline in Saskatchewan, except for that portion of the Province lying east of the 104th degree of longitude and north of the 53rd degree of latitude,

(iii) the 53rd parallel in Manitoba, except for that portion of the Province lying east of Lake Winnipeg and north of the Winnipeg River, or

- (b) in an area agreed to jointly by the Ministers and approved by the Governor-in-Council because the requirements of rural development in the area include, to a significant extent, the need to create or improve access to employment opportunities and increase standards of living for disadvantaged people of Indian ancestry living in the area.

In addition, the community's population must be less than 2,000 or so of whom at least 30% are people of Indian ancestry, or such other population percentage of Indian ancestry as the Ministers may subsequently agree; and it must not be within reasonable access by normal means of transportation and communication to another community with adequate public services (such as doctor, police, postal, education and commercial, and where adequacy of the service lacking is determined in relation to the specific project under consideration), or where employment opportunities are available or will become available in the near future.

(7) To qualify as a rural area, an area must be located 10 miles or more from the outer metropolitan boundary of a city of 25,000 or more and the number of people of Indian ancestry resident in the area is such as to ensure the labor force necessary for the project under consideration.

(8) To qualify as a project a majority of the persons to be employed or assisted in the project should be persons of Indian

ancestry, and the employment or earning opportunities created will result in significantly improved annual income for those affected.

F. Assistance under other Programs

(9) Assistance under this Program is intended to supplement, but not to replace nor duplicate, the assistance provided under other federal or provincial programs. Assistance for projects under this program will, therefore, be made available when adequate support is not available for such projects under these other programs. The amount of assistance to be provided will take into account the financial contributions which can be provided by the applicant and also any support which may be provided by federal, provincial or private agencies, including commercial lenders.

G. Purposes of Assistance

(10) The project must not involve assistance for personal or domestic purposes or for social functions, e.g., the purchase of personal passenger cars or housing, the refinancing of personal loans or mortgages, or the holding of community or cultural functions.

H. Cost per Job Created

(11) Each project will require a careful assessment of the estimated total cost per job to be permanently created directly in the operation or, in the case of a project that is not intended to be permanent, the estimated total cost per man-year of direct employment. Most of the projects will not be capital intensive and

the costs of counselling, training and studies will be large elements in total costs. At the maximum, in the case of projects (other than community improvement projects) that do have heavy capital as well as other requirements, the total of all assistance to be provided under the program will in no circumstances exceed \$30,000 per permanent job created in the project.

#### I. Priorities for Assistance

(12) Decisions will have to be made on the priorities to be given to various types of projects to be assisted under the program and on the levels of assistance to be provided in individual cases. As a general guide, 5% of the funds available under the program may be allocated for required opportunity or feasibility studies, 5% for planning and preparing projects, 40% to finance the capital and training costs of projects involving commercial undertakings, 25% to finance projects in remote rural communities, and the remaining 25% to finance projects involving the development of primary producing activities. These guidelines are intended to ensure that all groups of disadvantaged people for whom this program is designed benefit equitably from its provisions.

#### J. Equity

(13) Applicants may, and in certain cases will, be required to share in the cost of projects by making a contribution in the form of cash or other equity. For projects in remote rural communities which are of benefit to a community as a whole, the community itself may be required to make a contribution. For projects involving the

the development of primary producing activities, members of a group or formal association may be required to contribute 10% or more of the cost of the project. For commercial undertakings, the owner will be required to contribute at least 20% of the capital costs of buildings, machinery and equipment. The computation of this 20% equity may include the value of any work done by disadvantaged people in the preparation for and construction of the undertaking and of any land, equipment, materials or other supplies provided by or on behalf of the owner.

K. Viability

(14) The sponsors of projects involving commercial undertakings will have to establish that the undertaking can generate sufficient income to meet its financial obligations for a period of at least five years; that jobs with a minimum income of \$2,500 annually per job are created for at least three persons within a three-year period, or for projects owned by people of Indian ancestry and in which at least three persons are engaged, the total net annual income (including net profit, salaries, wages or fees) will be at least \$10,000; and that a majority of those employed are disadvantaged people of Indian ancestry for whom adequate provision has been made for counselling, training and other adjustments measures. The sponsors of projects involving the development of primary producing activities will have to establish that their projects will result in significant improvement in the present marginal or submarginal incomes of those to be engaged in such activities.

L. Management

(15) Applicants will be required to establish that their projects will be managed by qualified persons. The costs of training disadvantaged persons to acquire such qualifications may be included in the eligible costs of a project.

M. Contractual Nature of Assistance

(16) The document approving and accepting assistance constitutes a contract whose legal provisions are binding on the applicant and affect the payment of assistance. These provisions would relate to such matters as the use to which the grant may be put, the need for an inspection of the constructed facilities or purchased equipment and reasonable access to financial statements and books of account.

N. Retroactivity

(17) Except under extenuating circumstances determined by the Ministers, no assistance will be provided under this program to projects initiated prior to the acknowledgement of the formal receipt of the application.

PART II - ADMINISTRATIVE PROCEDURES

A. Procedures for Submitting Project Applications

(18) An application for assistance may be initiated by an individual, a legal entity such as a co-operative or a corporation, a community organization, an association or a government agency. The nature of the assistance being requested will ordinarily determine who prepares and submits the application. For instance, an application for an incentive grant will normally be submitted by either the prospective owner or by an officer of the cooperative or company established to operate the commercial undertaking. An application for financial support to a community recreation facility will normally be submitted by a community organization.

(19) The applicant or project sponsor will be expected to assume responsibility for planning and developing the project in detail and substantiating the request for assistance on the required application form and, if necessary, by means of supplementary documentation and information.

Where required, advice and assistance regarding the development of proposals or the completion of applications will be provided, as applicable, by the appropriate officials of the Department of Regional Economic Expansion, provincial officials who may be designated for this purpose, local Indian Affairs officers, or appropriate representatives of native people organizations in the province.

B. Procedures for Reviewing and Approving Project Applications

(20) When an application is completed, it is to be submitted to the Secretary of the Committee to be established in each province in accordance with the terms of the Special ARDA Agreement. This Committee, which is to be chaired by the Provincial Director of the Department of Regional Economic Expansion (and vice-chaired by an appropriate provincial official), will consist of at least two representatives each of Canada and of the Province and of at least two representatives of people of Indian ancestry in the Province. The Secretary will be provided by the Department of Regional Economic Expansion to assist the Committee in its work.

(21) The Committee will review applications to ensure that they are consistent with the purposes and provisions of the Act and the Agreement, that they meet the basic objective of facilitating economic development and social adjustment for disadvantaged people, principally of Indian ancestry, in rural areas of the province, and that they are in accordance with the operating guidelines established to ensure the realization of this objective.

(22) In particular, the Committee will ensure that all major aspects of each project proposal have been worked out in detail and properly integrated and that the following considerations have, where applicable, been taken into account:

- (a) the objectives, benefits, costs, revenues  
methods of implementation, and provisions  
for evaluation where appropriate;

- (b) the type and level of assistance which may be provided to the project under other federal or provincial programs;
- (c) data on unemployment, under-employment, levels of income and other related information pertinent to the rural area in which the project is to be located with a view to indicating how the project will benefit and be accepted by the people of that area;
- (d) the number and type of jobs (including the cost per man-year) that are expected to be created during and upon implementation of the project; and
- (e) the type and cost of any special training which may be required to assist disadvantaged people in the area to take advantage of the new jobs to be created by the project.

(23) The Committee will request, when necessary, agencies of the provincial and federal governments to comment on project proposals and to confirm that commitments for assistance made by them to a project will be carried out. The Committee may also seek advice on project proposals from experts and from both public and private agencies. In particular, the Committee may obtain an assessment of projects involving commercial undertakings from competent private or public agencies, such as private consulting firms, provincial departments or development corporations, and appropriate federal agencies. The purpose of

this assessment is to determine the viability of a project and to ensure that it can meet terms and conditions similar to those applied under the Regional Development Incentives Act and Regulations.

(24) If, on the basis of its review, the Committee decided to recommend approval of a project to the Ministers, it will also recommend the level of assistance and the conditions under which the assistance should be approved. Provided the recommendation is within their delegated authority, the DREE Director in each province and the responsible provincial official will approve projects on behalf of their Ministers. Projects of a type or magnitude not within the delegated authority of these officials will be submitted by the Committee to the Ministers for decision. All projects which involve financial or other assistance by the Province must be approved by both the federal and provincial ministers.

The Committee may, on the other hand, decide not to recommend approval of a project or decide that a project requires clarification or revision before further consideration can be given to it.

#### C. Procedures for Ensuring Completion of Projects

(25) All decisions involving the approval of projects will be communicated to applicants by the Secretary of the Committee who will also undertake to initiate any action required for the implementation of the project, including the preparation and release of any appropriate public announcement. In the case of rejections or requests for further clarification or revision, the Committee will ensure that an appropriate letter, explaining the reasons for

the decision, is sent to the applicant by the Secretary. When an application is approved or rejected, appropriate notice will be provided to the Ministers for their information.

(26) As soon as the applicant is informed of the approval of his application, the Secretary will establish liaison with the agency primarily responsible for supervising the implementation of the project with a view to initiating appropriate action, including the integration of all the components of the project which were considered necessary by the Committee for its success. He will also keep the Committee informed of the progress made and of the completion of each project. The responsibility for making sure that its assistance is effectively administered and controlled lies with each agency contributing to the project.

APPENDIX 4

TRAPPING SEASONS  
IN THE PROVINCE OF MANITOBA

## Manitoba Department of Mines, Resources and Environmental Management

**BEAVER** \* see note below**Northern RTL Districts:**

Brochet, Chipewyan, Churchill, Cormorant, Cross Lake, God's Lake, Island Lake, Limestone, Moose Lake, Nelson House, Norway House, Oxford House, Pukatawagan, Shamattawa, South Indian, Split Lake.

October 15, 1975 to May 31, 1976 inclusive

**Swan River RTL Districts:**

Camper Duck, Cedar Lake, Crane River, Grand Rapids, Gypsumville, Porcupine, Red Deer, Skownan, Shoal Lake, Waterhen.

October 15, 1975 to May 15, 1976 inclusive

East Lake Winnipeg, Bullhead and Whiteshell RTL Districts.

October 15, 1975 to May 15, 1976 inclusive

Fur Rehabilitation Blocks, including Private Land within such Blocks.

November 1, 1975 to May 15, 1976 inclusive

Open Areas, North of the 53rd Parallel.

October 15, 1975 to May 15, 1976 inclusive

Open Areas, South of the 53rd Parallel.

October 15, 1975 to April 30, 1976 inclusive

\*The following areas are closed to all beaver trapping in 1975/76:

(a) The Mantago Lake Wildlife Management Area

(b) An area bounded by Provincial Trunk Highways 6, 16 and 68 and Provincial Roads 224 and 325.

**BLACK BEAR**

All RTL Districts.

October 15, 1975 to May 31, 1976 inclusive

Areas Other Than RTL's

October 15, 1975 to the commencement of the Sport Hunting Season in 1976.

**ERMINE (Weasel)**

North of the 53rd Parallel.

November 1, 1975 to March 31, 1976 inclusive

South of the 53rd Parallel.

November 15, 1975 to February 29, 1976 inclusive

**FISHER**

In All RTL Districts Except:

Duck Mountain, Porcupine, Red Deer-Shoal River, Camperduck, Cedar Camp, Blocks A, A1 & C, Skownan, Waterhen, Crane River, Bullhead and open areas north of the 53rd Parallel.

November 1, 1975 to February 29, 1976 inclusive

ALL OTHER AREAS only under authorized Special Permit issued by the Minister.

November 1, 1975 to February 29, 1976 inclusive

**FOX**

North of the 53rd Parallel.

November 1, 1975 to March 31, 1976 inclusive

South of the 53rd Parallel.

November 1, 1975 to February 29, 1976 inclusive

**LYNX**

North of the 53rd Parallel.

November 1, 1975 to March 31, 1976 inclusive

South of the 53rd Parallel, in unorganized territory.

November 1, 1975 to February 29, 1976 inclusive

**MARTEN**

Closed, except that Special Permits may be issued by the Minister.

**MINK**

North of the 53rd Parallel.

November 1, 1975 to January 31, 1976 inclusive

South of the 53rd Parallel.

November 15, 1975 to January 31, 1976 inclusive

**MUSKRATS**

All RTL Districts.

October 15, 1975 to May 15, 1976 inclusive

Open Areas North of the 53rd Parallel.

October 15, 1975 to November 15, 1976 inclusive

Open Areas South of the 53rd Parallel.

March 15, 1976 to May 15, 1976 inclusive

Marshy Point Goose Refuge

March 1, 1976 to April 30, 1976 inclusive

Oak Lake Special Canada Goose Refuge

Closed April 15, 1976.

**OTTER**

North of the 53rd Parallel.

November 1, 1975 to April 30, 1976 inclusive

In RTL Districts and Fur Rehabilitation Blocks.

November 1, 1975 to March 31, 1976 inclusive

South of the 53rd Parallel.

In RTL Districts and Fur Rehabilitation Blocks.

Closed, except that Special Permits may be issued by the Minister

Open Areas

**SQUIRREL (Red)**

All Areas.

November 1, 1975 to March 31, 1976 inclusive

**WOLVERINE**

All Areas.

November 1, 1975 to March 31, 1976 inclusive

SKUNK, RACCOON, JACK RABBITS, COYOTE, TIMBER WOLF, BADGER AND BOBCAT

Not Protected.

"TRAPPING BEGINS, 12:00 A.M. ON OPENING DATE, LOCAL TIME"

APPENDIX 5

THE METHODOLOGY FOR CALCULATING INCOME IN KIND

## The Methodology For Calculating Income In Kind

Income in kind was determined so that total gross trapping income and net trapping income could be calculated for the trappers interviewed. Net trapping income was calculated by adding the calculated dollar value for income in kind to gross trapping income and then subtracting operating costs from this total. Thus, net income equals gross income (including income in kind) - operating costs (fuel, clothing etc.). A methodology for calculating income in kind was necessary due to an omission in the questionnaire. Upon completion of interviewing it was discovered that question 20 was not precisely formulated (see Appendix 7). Thus, it was impossible to measure income in kind for trappers from the response to question 20 on the trapping questionnaire.

### Method Used to Calculate Income In Kind

Income in kind for the trappers interviewed is presented separately for each community selected. The following assumptions were made:

1. That the nutritional value of the wild meat consumed is equivalent to the nutritional value per pound of a side of beef. This assumption allows a dollar value to be assigned to the wild meat consumed. The total pounds of wild meat consumed was multiplied by the value per pound of a side in beef (as of January, 1974) in the fur councils selected (see Table 1).
2. That a trapper utilizes a percentage of the carcasses of the animals he trapped. The carcasses would be used for dog food, bait for his traps and personal consumption. The latter use includes family consumption and gifts to friends in the community. Further it was assumed that the percentage of carcasses utilized was greater in the remote fur councils. (Tadoule Lake and Cross Lake) than in the

TABLE 1

The Live And Dressed Weights Of Mammals Consumed By Trappers

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<u>MAMMAL</u>	<u>LIVE WEIGHT</u>	<u>DRESSED WEIGHT</u>
Beaver	40 lbs.	20 lbs.
Muskrat	2½ lbs.	1¼ lbs.
Otter	20 lbs.	10 lbs.
Rabbit	4 lbs.	2 lbs.
Mink	1½ lbs.	¾ lbs.
Lynx	20 lbs.	10 lbs.
Moose	900 lbs.	450 lbs.
Caribou	340 lbs.	170 lbs.

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SOURCE: Peterson, R. L. The Mammals of Eastern Canada, Toronto, Oxford University Press, 1966, pp. 133, 169, 245, 273, 280, 330, 326.

fur councils located closer to urban centres (The Pas and Porcupine Barrows). For the remote fur councils, it was assumed that 85 percent of the carcasses trapped were utilized. For those less remote communities (The Pas and Porcupine Barrows), it was assumed that 50 percent of the carcasses trapped were utilized.<sup>1</sup> This percentage was calculated by dividing the total dressed weight of the animals trapped by the assumed rate of utilization (see Table 2).

3. The moose and caribou meat were also utilized by the trapper and his family during the trapping season. This assumption is based on conversations with the trappers during the interviews. For the fur councils selected, it was assumed that a trapper consumed the following amounts of moose and caribou during the trapping season. Tadoule Lake, two moose and two caribou; Cross Lake and The Pas, two moose; Porcupine Barrows, 1 moose. The dressed weight of moose and caribou was then added to the percentage of trapped animals consumed to yield the total pounds of wild meat consumed. This total poundage was then multiplied by the price per pound of a side of beef in the community or the nearest urban centre. The price per pound was determined by using Northern Manitoba Price Statistics, January 1974. The following example illustrates the calculations made.

1. If the dressed weight of carcasses used is as follows:

20 beaver x 20 lbs. = 400 lbs

50 muskrat x 1¼ lbs. = 62.5 lbs

5 otter x 10 lbs. = 50 lbs

2 mink x ¾ lbs. = 1.5 lbs

then, Total dressed weight of carcasses 514.0 lbs

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1 This percentage of utilization was based on the individuals 1975 fur production as recorded by the Department of Mines, Resources and Environmental Management in the "Game and Fur Crop Census". The 1974 months include October, November and December.

TABLE 2

Cost Per Pound Of A Side Of Beef Sold In  
The Local Fur Councils Selected For The Evaluation

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Local Fur Council	
<u>LOCATION</u>	<u>\$ PER/LBS. OF A SIDE OF BEEF (January/74)</u>
Cross Lake	1.47
Porcupine Barrows	1.08
Tadoule Lake	1.23 <sup>1</sup>
The Pas	1.08

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SOURCE: Northern Manitoba Price Statistics January, 1974,  
Manitoba Bureau of Statistics, Winnipeg, 1975.

1. This price is the price per pound of a side of beef in Churchill. The federal Department of Northern and Indian Affairs pays for the shipment of freight from Churchill to Tadoule Lake.

2. Second, 50 percent of 514.0 lbs. =  $50/100 \times 514 = 257$  lbs.
3. Third, 2 moose x dressed weight of 450 lbs. = 900 lbs.
4. Fourth, the dressed weight of carcasses used (257 lbs.) + dressed weight of 2 moose (900 lbs.) = 1,157 lbs. which is the total dressed weight of wild meat consumed during the trapping season.
5. The total dressed weight of wild meat consumed (1,157 lbs.) x \$1.08. The price per pound of a side of beef in The Pas as of January 1974  $\$1.08 = \$1,249.56$ .
6. To calculate net trapping income, this total 1,249.56 is added to gross trapping income. For example, total gross trapping income (\$3,000) + income in kind (1,249.56) = \$4,249.56. Then, operating costs (fuel, clothing etc.) are subtracted from \$4,249.56 to yield net trapping income. For example, total gross trapping income (\$4,249.56) - operating costs (\$249.56) = net trapping income (\$4,000).

#### Discussion of Income In Kind

Income in Kind or "food and other products obtained from the land without any cash transaction taking place"<sup>2</sup> plays an important role in the economy of primary producing communities; particularly northern communities. Several methodologies have been developed to estimate income in kind. One methodology was developed by B. Ramsay for his practicum entitled "The Economic and Social-Cultural Situation of Native Trappers in Northern Manitoba".

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2 J.D. Collinson et al The Social and Economic Impact Study Team, Planning Branch, Manitoba Department of Mines, Resources and Environmental Management, Cross Lake Community, for The Lake Winnipeg, Churchill and Nelson Rivers Study Board, Winnipeg, June 1974, p.45.

This method assumed that the nutritional value of wild meat (i.e. moose) was equivalent to the nutritional value per pound of a side of beef thus making it possible to assign a dollar value to the wild meat. Information on how many times a week and what species of wild meat were consumed was gained through the use of a questionnaire. It was also assumed that the trapper and his family ate every animal caught from each species indicated in the questionnaire. By referring to the Department of Mines, Resources and Environmental Management, "Animal Fur and Game Crop Census" the production of the individual trapper was determined. The dressed weight of the wild meat consumed was then assigned the same value per pound as a side of beef in the communities selected and multiplied to yield an estimate of income in kind for the individual trapper.

Another methodology, developed by the Social and Economic Impact Study Team for the Lake Winnipeg, Churchill and Nelson Rivers Study Board, is based on the premise of opportunity cost.<sup>3</sup> The proponents of this methodology argue that, "hunting, trapping and fishing provide a source of food which if lost would have to be replaced by resorting to retail purchases from local stores. Therefore, food derived from the above activities was evaluated on the basis of the costs avoided by not having to make equivalent retail purchases."<sup>4</sup> The five step methodology consisted of:

- 1) calculating average household size and number of households from demographic data;

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3 An opportunity or alternate cost can be defined as the value of a resource in a foregone employment.

4 J. D. Collinson et al., p.131.

- 2) calculating the number of meals by specie by season and number of households consuming from questionnaire responses;
- 3) from calculation 1 and 2 estimates of the total number of meals by species for the community were derived;
- 4) unit prices of comparable commercial food in the community were derived from Food Price Indexes, Manitoba Bureau of Statistics, January 1974 and applied to a conservative consumption estimate of 3.5 pounds of produce per meal per household to derive a value per meal per household;
- 5) the value per meal per household was applied to the total number of meals per species per season to derive a total value of a particular species by season.

The method for calculating income in kind used in this report is not as refined as the latter one discussed. This was due to the limitations of the questionnaire. The method developed does however, incorporate ideas from both methodologies discussed. The resulting estimates of income in kind from the method developed for the report are conservative estimates. There are three reasons for this. They were:

- 1) The two methodologies discussed assumed 100% rate of utilization of trapping production. The method used in the report assumed an 85% utilization of trapping production rate for remote communities located close to urban centres. Moreover, production records were often not available for the trappers interviewed. For example, in Tadoule Lake, there were no production records for 11 of the 15 trappers interviewed. In this situation, only income in kind for the assumed amount of moose meat consumed during the trapping season was calculated.
- 2) The methodology used in the report did not consider all types

of wild meat consumed. Waterfowl, such as geese, ducks were not included in the calculations of income in kind for the trapping or fishing season. These sources of land food are available to the primary producers and conversations with the primary producers indicate they are utilized.

- 3) Income in kind was calculated only for the trapping/fishing season not for the entire year. The length of time income in kind was calculated for is not made clear in the other two methods discussed.

Since the calculations of income in kind for the individual trappers are conservative a high degree of accuracy should not be assumed. Nevertheless, the methodology for calculating income in kind is defensible and the information generated adequate for the purposes intended; that is, to determine total gross trapping income and net trapping income.

**APPENDIX 6**

**METHODOLOGY FOR CALCULATING  
ATTITUDE TOWARDS EQUIPMENT MAINTENANCE**

## Methodology For Calculating Attitude Towards Equipment Maintenance

The procedure used to objectively determine the trappers attitudes towards equipment maintenance is as follows:

1. Snowmobiles, outboard motors, bomardiers, trucks, tractors and traps had to be protected from the elements to be recorded as a positive attitude towards equipment maintenance. Boats and canoes were omitted from the procedure due to inconsistencies in interviewing.

2. A positive or negative attitude was determined through the following calculation:

$$\frac{\text{number of eligible pieces of trapping equipment protected}}{\text{total number of pieces of trapping equipment eligible}}$$

3. The results were then recorded into one of the following categories:

0 no trapping equipment protected,

1 1% - 25% of trapping equipment protected,

2 26% - 50% of trapping equipment protected,

3 51% - 75% of trapping equipment protected,

4 76% - 100% of trapping equipment protected,

These categories represent degree of attitude towards equipment maintenance, i.e. 0 represents a strong negative attitude and 4 a strong positive attitude.

APPENDIX 7

THE BIOLOGICAL RESOURCE BASE

## The Biological Resource Base

The biological resource base or the supply and quality of fur bearers is a controversial subject. The 1963 report of the Committee on Manitoba's Economic Future states that "the resource base is capable of supporting, without depletion an expansion of perhaps three to four times the present rate of production."<sup>1</sup> The executive summary of the Manitoba Wild Fur Program echoed the belief by stating that "based on 1972/73 prices the current estimated potential [wild fur production] may be closer to \$8,0 million. In summary the wild fur resources are greatly under utilized."<sup>2</sup> Further, the executive summary lists seven causes of under utilization. They are:

1. high trapper costs related to returns;
2. inadequate sources of credit;
3. low returns to producers related to market value;
4. difficulty of access to fur resources;
5. social isolation on the trapline;
6. ineffective organization of trapping activities in the community;

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<sup>1</sup>Province of Manitoba, Targets for Economic Development, Report of The Committee on Manitoba's Economic Future, R. E. Grose, Chairman, Winnipeg, 1963. p. 98.

<sup>2</sup>Province of Manitoba, Manitoba Wild Fur Program, Executive Summary, Winnipeg, January 10, 1975. p. 1.

7. ready availability of welfare and related programs as income alternative to trapping.<sup>3</sup>

An opposing view is proposed by the Targets for Economic Development Commission. They argue thus: "given the probable prices and labour input necessary to harvest a catch of wild fur" and the decline of trapping due to "the extent the social and economic problems of the people [Indian and Metis] in northern Manitoba are met and overcome over the next decade" that "biological or resource base limits on growth targets for fur production are meaningless. The annual harvest of wild fur should lie in the range of 500,000 - 6,000,000 pelts by 1980 with value of the fur crop about \$2 million."<sup>4</sup>

Compilation of data on the biological resource base is the responsibility of the local conservation officer. There are three methods by which the conservation officer can collect and determine this information. They are:

1. Calculate animal population estimates based on the number of animal dens or sightings on the traplines in the district;
2. Calculating population from den counts during the spring season; and

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<sup>3</sup>Ibid.

<sup>4</sup>Province of Manitoba, Targets for Economic Development, op. cit., p. 99-100.

3. Recording the specie and number of animal sightings while flying over a predetermined area.

The above methods are the most accurate available, however, since they are estimates only they can not accurately determine the extent of utilization or underutilization of the fur bearing resource base.

Another problem related to the utilization controversy and the data collection problem is the aggregation of production statistics for open trapline areas. Here, fur production statistics are not categorized by the local fur councils (as they are for registered traplines) but by the name of the trapper.<sup>5</sup> Thus, it is difficult to determine the exact location where the animals are being harvested. The following hypothetical example illustrates this problem. A trapper from Winnipeg could trap in the Red Deer - Shoal River fur block but fur production records would not indicate that his production came from this area; his fur production would be recorded under his name but for the entire open area.

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<sup>5</sup>The Porcupine-Barrows Local Fur Council is an exception. Due to the recording system of the local conservation officer production statistics were available by August 1975.

APPENDIX 8

THE SPECIAL ARDA EQUIPMENT GRANT PROGRAM EVALUATION

TRAPPING QUESTIONNAIRE

NATURAL RESOURCE INSTITUTE  
EVALUATION OF SPECIAL ARDA PROGRAM 1975

TRAPPING QUESTIONNAIRE

ASSOCIATION:

DATE:

INTERVIEW NUMBER:

INTERVIEWER:

Natural Resource Institute  
University of Manitoba  
Winnipeg, Manitoba  
Phone: 474-8152

SPECIAL ARDA PROGRAM EVALUATION TRAPPING

Personal History:

1. Name: \_\_\_\_\_
2. Social Insurance Number: \_\_\_\_\_ Treaty Number: \_\_\_\_\_
3. Address: \_\_\_\_\_
4. Status: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: Male \_\_\_\_\_ Female \_\_\_\_\_
5. Number of children: 16 & over \_\_\_\_\_ in school \_\_\_\_\_ under 16 \_\_\_\_\_
6. Do you have any physical disabilities? Yes \_\_\_\_\_ No \_\_\_\_\_
7. What was the highest grade you completed in the regular school system? What training courses have you taken?

FORMAL EDUCATION	TRAINING COURSES
<p>None _____</p> <p>Grades 1 - 3 _____</p> <p>4 - 6 _____</p> <p>7 - 9 _____</p> <p>10 - 12 _____</p> <p>&gt; 12 _____</p>	<p>None _____</p> <p><u>Hnausa:</u></p> <p>Diesel Maintenance _____</p> <p>Motor Maintenance _____</p> <p>General Fishing _____</p> <p>Boat Building _____</p> <p><u>Other Motor Maintenance Programs</u> _____</p> <p><u>Fur Grading Workshop</u> _____</p> <p><u>Boat Building course on-site</u> _____</p> <p><u>Other (specify)</u> _____</p> <p>_____</p>

8. Can you speak and/or write any of the following languages?

LANGUAGES	SPEAK	WRITE
English	_____	_____
French	_____	_____
Cree	_____	_____
Chipewyan	_____	_____
Cree-Saulteaux (Ojibway)	_____	_____
Others (specify)	_____	_____
_____	_____	_____
_____	_____	_____

9. How many years have you been trapping? \_\_\_\_\_ years

10. How many years have been licenced as a:

a) commercial trapper \_\_\_\_\_ years

b) hired trapper \_\_\_\_\_ years

11. (a) Do you expect to be trapping 5 years from now? Yes \_\_\_ No \_\_\_

(b) If no, why \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Equipment Inventory:

12. Please aid me in completing the following table.

DISTANCE FROM HOME TO BEGINNING OF TRAPLINE-TOTAL MILES	METHOD OF TRANSPORTATION TO TRAPLINE	LENGTH OF TRAPLINE (MILES)	MEANS OF MOBILITY ON TRAPLINE
_____	_____	_____	1. _____ 2. _____ 3. _____ 4. _____

13. a) What support facilities are available on your trapline?  
 b) What condition are they in?

SUPPORT FACILITIES	CONDITION	
	GOOD	POOR
1. Cabin	_____	_____
2. _____	_____	_____
3. _____	_____	_____

14. Please help me complete the following equipment inventory table.

Post ARDA Equipment

ARDA Equipment

Pre ARDA Equipment

										I.D. Number	
										Quantity	
										Equipment List A	
											Type
											Manuf. Name
											Model
											Size
											Year
										Purchased N(New) U(Used)	
										Purchase Year	
										B	
											Class
										C	
											Undepreciated Capital Cost
										D	
											Method of Finance (Code 1)
										E	
											Yes
										No	
										Life	
										Equipment life (Code 2)	
										F	
											Major Equipment Breakdowns (No. / Season)
										Length (Weeks)	
										G	
											Repaired By (Code 3)
										H	
											Cost of Repairs (\$ / Season)
										I	
											Alternate Use (Code 4)
										J	
											Length of Other Uses (No. of Times/Month)
										K	
											Equipment Storage (Code 5)
										L	
										Comments (Code 6) Put on Back	

EQUIPMENT INVENTORY

EQUIPMENT INVENTORY CODES

Code 1 Method of Finance:

1. Personally financed
2. Hudson Bay Company
3. Friends, relatives
4. Fur Auction Company
5. Department of Indian and Northern Affairs
6. Private lending institutions
7. Local Band Council
8. Local Fur Council
9. Other (specify)

Code 2 Equipment Life:

Y - Still in use  
N - Not in use

L - Lost  
S - Stolen

SI - Sold it  
D - Defective

Code 3 Repairs Done By:

- S Self
- I Someone else living in community
- O Outside the community
- V Someone else not living in community but repairs done in community

Code 4 Other Uses of Equipment:

- A) Shopping
- B) Recreation
- C) Visiting friends in community
- D) Visiting friends outside community
- E) Emergency transportation
- F) Hauling wood or water
- G) Domestic hunting and fishing
- H) Fishing
- O) Other (specify)

Code 5 Equipment Storage:

- UC Uncovered
- C Covered
- O Other (specify)

Code 6 Comments:

Indicate column number and item before recording comments, i.e.

Bi is column            B item number 1.        Please leave space  
between different comments recorded.

Operating Expenses:

15. What was the method of finance and how much were your operating expenses for the trapping season (Use Code 1 Equipment Inventory for Method of Finance).

	FUEL, GAS & OIL	FOOD	TRANS- PORTATION	GEAR (CLOTHING, AXES KNIVES, AMMUNITION)	WAGES	OTHER (SPECIFY)
HOD F NCE						
UNT \$)						

16. a) Do you require a grubstake for your trapping operation?

Yes \_\_\_\_\_ No \_\_\_\_\_

b) If yes, how much do you usually require? \$ \_\_\_\_\_

General Questions:

17. a) Do you keep records? Yes \_\_\_\_\_ No \_\_\_\_\_  
b) If yes, what kind of bills and receipts do you keep?  
\_\_\_\_\_
18. a) Would you like to have someone in the community you could  
take your equipment to to be fixed?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
b) Would you be willing to pay to have your equipment fixed  
by this season?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Employment Activities:

19. a) What was your total income in the year before you received  
your Special ARDA equipment grant?  
\$ \_\_\_\_\_  
b) Was there a decrease in your income the next year?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
Why do you think this happened? \_\_\_\_\_  
If no, did it increase? Yes \_\_\_\_\_ No \_\_\_\_\_  
c) Do you think this increase was due to your Special ARDA  
equipment grant?  
Yes \_\_\_\_\_ No \_\_\_\_\_  
d) Why? \_\_\_\_\_
20. How many times a week do you eat locally caught fish?  
\_\_\_\_\_ per week  
How many times a week do you eat wild meat?  
\_\_\_\_\_ per week
21. Please aid me in completing the table on employment activities.



EMPLOYMENT ACTIVITIES CODES

Code 1 Inactivity

1. Sick - blue pen - indicate approximate number of days in 2 week periods that sickness prevented you from trapping.
2. Weather - black pen - indicate approximate number of days in 2 week periods that weather prevented you from getting around trapline.
3. Holiday - green pen - indicate approximate number of days in 2 week period when you took an extended holiday.
4. Major equipment breakdown - unable to get out and/or around trapline - red pen - indicate approximate number of days in 2 week period.
5. Other (specify) - pencil - indicate approximate number of days you were not trapping in 2 week period. Specify reason:

Code 2 Alternate Employment

Write in code word and indicate period of employment with XXX for full time and/or /// for part-time work

- |     |                               |                              |          |
|-----|-------------------------------|------------------------------|----------|
| 1.  | Road Construction             | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 2.  | Community Projects (Comm. P.) | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 3.  | Hydro                         | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 4.  | Forestry                      | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 5.  | Firefighting                  | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 6.  | Guiding                       | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 7.  | Trapline Officer              | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 8.  | Retail employee               | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 9.  | Hauling wood & water          | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 10. | Odd jobs                      | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 11. | Mining                        | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 12. | Courses                       | total amount of money earned | \$ _____ |
| 13. | Ice - putting up ice          | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
| 14. | Others (specify)              |                              |          |
|     | a)                            | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk         | \$ _____ |
|     | b)                            | hourly wage                  | \$ _____ |
|     |                               | approximate hours/wk.        | \$ _____ |

Code 3      Transfer Income

1. Unemployment Insurance (amt. bi-weekly) (U.I.C.)
2. Family Allowance - (Fam. All.)
3. Health & Social Development (H.S. Dev.)
4. Indian Affairs - (Ind. Aff.)
5. Canada Pension - (Can. Pen.)
6. Veterans Pension - (Vet. Pen.)
7. Disability Insurance - (Dis. Ins.)

Other (Specify)

8.

9.

Problems of Trappers:

22. a) What are some of the problems that prevent you from earning more income from trapping?
- b) Can you think of some ways to solve these problems?

<u>PROBLEMS</u>	<u>SOLUTIONS</u>
1) Price of furs is too low	Give trappers a greater share of fur price
2) Lack of equipment	Easier financing of equipment
3) Poor living conditions on trapline	More living facilities on trapline
4) Make more money from other jobs	Give trappers a greater share of fur price
5) Other (specify)	Other (specify)
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX 9

METHOD OF ANALYSIS

## METHOD OF ANALYSIS

The method of analysis used in the evaluation was multiple regression analysis.<sup>1</sup> Multiple regression analysis was used to isolate the important factors that accounted for variability in the gross and net incomes of the trappers that were interviewed. Trapping income was designated as the (dependent) variable to be explained by the (independent) explanatory variables which are the factors hypothesized to influence trapping income.<sup>2</sup> The relationship between the dependent and independent variables is explained in a simplified example of linear regression.

### SIMPLE LINEAR REGRESSION

Consider the following example of linear regression. An evaluation was done on five trappers and the only information that was gathered was gross trapping income and the age

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<sup>1</sup>General information on multiple regression analysis theory and application can be found in Michael J. Brennan, Preface to Econometrics, Third Edition (Cincinnati: South-Western, 1973).

<sup>2</sup>To understand the terms dependent and independent another example can be used. The height of a plant can be said to be dependent on the amount (inches) of rainfall but the amount of rainfall is not dependent on the height of the plant. Thus, in this example, the amount of rainfall is independent of the height of the plant.

of each trapper. It was decided that gross trapping income is the dependent variable and age of trappers the independent variable. The data was then arranged as follows:

<u>Trapper Number</u>	<u>Gross Trapping Income</u>	<u>Age</u>
1	3,000	46
2	4,500	29
3	1,200	38
4	900	41
5	3,800	24

Next, a linear (straight line) equation was used to represent the regression relationship. The equation is as follows:

$$Y = \bar{Y} + b(X - \bar{X})$$

where:

Y is the independent variable.

$\bar{Y}$  is the mean of Y or \$2,680.

X is the dependent variable.

$\bar{X}$  is the mean X or 35.6 years.

b is the slope of the line or 107.87.

Hence,

$$Y = 2,680 + 107.87(X - 35.6)$$

The above equation indicates that linear relation of the independent variable (Y) on the dependent variable (X) where b is the slope of the line. When this line is plotted on a graph the relationship of Y and X is clarified.

That is, there is an increasing relationship for both variables. Thus, the increase is said to be positive.

The example given considered only one independent variable. Trapping income is affected by many variables. When there are two or more independent variables which may affect the dependent variable multiple linear regression is used.

#### MULTIPLE LINEAR REGRESSION

Multiple linear regression has many uses. In general, the principle uses of multiple regression are:

1. Development of a linear equation for the dependent variables which give the best prediction of the values of the independent variables.
2. Finding the dependent variables that result in the best linear prediction equation when there are many dependent variables.
3. To discover which dependent variables are related to the independent variable and if possible to rate the variables in order of importance.

The multiple regression analysis used for the evaluation allowed the construction of a linear equation that

gives the best prediction of the values of the twenty variables hypothesized to affect trapping income, the independent variable. From the twenty variables it was possible to develop the best subset of variables that explain trapping income and rate these variables in order of importance.

A linear equation was used to represent the regression relationship between the twenty dependent variables and trapping income, the independent variable.

The equation was:

$$Y = A + B_1X_1 + B_2X_2 + \dots + B_{20}X_{20} + e$$

where:

Y is the independent variable.

A is a constant, the intercept or the value of Y when all values of the dependent variables are zero.

$B_1 \dots B_{20}$  are the regression coefficients which give the rates of change of Y with respect to  $X_1 \dots X_{20}$  respectively.<sup>3</sup>

e is the error term which accounts for the inexactness of the relationship. This inexactness of the relationship is due to many factors. Some examples are random variability (i.e. "luck" in trapping), the exclusion of important variables either not recognized or for which no data are available.

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<sup>3</sup>A unit change in the variable X; (all other variables held constant) will result in a  $B_i$  change in Y :  $i = 1, \dots, 20$ .

### MULTIPLE REGRESSION RESULTS

The results of the multiple regression analysis are presented in the following form. The most important independent variables are listed in the first column according to their number. For example the independent variable age appears as X3.

The heading "t"-value gives the value of a test statistic used to ascertain whether the value of the regression coefficient is statistically different from zero at a specified significance level. If this is the situation it can be argued that the independent variable with which it is associated does affect the dependent variable, trapping income. The greater the t-value, the greater the probability that this is so.

Consider this example. One independent variable, the average age of trappers, has a t-value of which indicates the value of the regression coefficient is statistically different from zero at the five percent significance level. This means that the probability that this particular value (or a more extreme value) of the regression coefficient could have arisen by chance, is less than .05 or 5%. Statistical tests determine which regression coefficients can be attributed to chance and which coefficients can not reasonably be attributed to chance. Thus, it can be concluded that the

variables to which these significant coefficients correspond are in fact related to the dependent variable.

Whether or not a regression coefficient is statistically significant from zero at a particular significance level depends not only on the magnitude of the coefficient but also on the variability of the variable to which it corresponds and the relationship of this variable to other variables included in the regression equation. For example, if for one data set local fur council all trappers are over fifty years of age it will be difficult to detect the influence of age on trapping income unless the sample size is larger.

The category labeled "elasticity" gives the percent change in the value of the dependent variable as a result of a one percent change in the value of the independent variable from its mean when all other independent variables are held constant at their mean values. (The fourth line gives the mean values of the variables). For example a one percent increase in the average age of the trappers interviewed would lead to a .23 percent increase in trapping income.

The final important statistic is the  $R^2$  (regression correlation coefficient) statistic. The  $R^2$  value is the fraction of the total variation in trapping income in the data that can be explained by the given set of independent variables. For example an  $R^2$  of .713 can be interpreted as

indicating that 71.3% of the differences in trapping income can be accounted for by the category of fur bearer trapped (long or short haired).

APPENDIX 10

THE METHOD USED TO COMPARE TRAPPING INCOMES

FOR 1973 - 1974 and 1974 - 1975

### COMPARISON OF TRAPPING INCOMES

The 1973-1974 and 1974-1975 gross and net trapping incomes were compared for the trappers interviewed and for whom wild fur production records were available. Wild fur production records for 1973-1974 and 1974-1975 were available for only thirty of the fifty-nine trappers interviewed. The trappers interviewed for whom no wild fur production records were available for either of these years or for whom wild fur production records were available for only one of these years were not included in the comparison. The method used to compare trapping incomes over this time period was based on two assumptions.

#### ASSUMPTIONS

The assumption made to compare trapping incomes for the years 1973-1975 was as follows:

1. The ratio of total trapping costs to total trapping revenue was constant. Total trapping costs include the operating costs incurred by the trapper during the trapping season. Total trapping revenue includes income from the sale of pelts.

#### METHOD USED TO COMPARE TRAPPING INCOMES

The method used to compare the gross and net trapping incomes for the years 1973-1974 and 1974-1975 was as follows:

1. The 1974-1975 gross trapping income was determined from wild fur production records for this year.
2. To obtain the net trapping income for 1974-1975 the total trapping costs, which were determined from questionnaire responses, were subtracted from total trapping revenue.
3. The net trapping income ratio for the individual trapper was determined by dividing total trapping costs by total trapping revenue (  $\frac{TTC}{TTR}$  ). It should be noted that rather than assume trapping costs constant a ratio was used because operating costs will vary with the amount of income derived from trapping.
4. The net trapping income ratio for the individual trapper was then multiplied by his 1973-1974 gross wild fur production. Thus, the trappers 1973-1974 total trapping costs were determined.
5. To obtain the net trapping income for 1973-1974 total trapping costs were subtracted from total trapping revenue for 1973-1974.
6. The results of the above calculations were then tabulated and analyzed.

APPENDIX 11

STATISTICAL TABLES

Table 1. A Comparison of Trapping Income Before and After the Receipt of Special ARDA Assistance in Percentages

<u>Comparison</u> <sup>1</sup>	<u>Percent for total sample</u>	<u>Cross Lake</u>	<u>Porcupine-Barrows</u>	<u>Tadoule Lake</u>	<u>The Pas</u>
Decrease in Income after ARDA Grant	5	7	0	13	0
No Change in Income after ARDA Grant	17	20	7	33	7
Increase in Income after ARDA Grant	73	60	87	54	93
No Response to Question	<u>5</u>	<u>13</u>	<u>6</u>	<u>0</u>	<u>0</u>
Total	100%	100%	100%	100%	100%
IF INCREASE ATTRIBUTED TO THE RECEIPT OF SPECIAL ARDA ASSISTANCE <sup>2</sup>	68%	60%	87%	40%	86%
IF INCREASE ATTRIBUTED TO OTHER FACTORS	5%	0%	0%	14%	7%

SOURCE: Compiled from questionnaire responses.

1. The questions asked for a yes or no response. The percentages presented are for the yes responses only.
2. These percentages are for the total sample in each council.

Table 2. The 1974-1975 Income Characteristics of the Trappers Sampled (In Dollars)

<u>Source of Income</u>	<u>Mean for total sample</u>	<u>MEAN FOR COUNCILS SELECTED</u>			
		<u>Cross Lake</u>	<u>Porcupine-Barrows</u>	<u>Tadoule Lake</u>	<u>The Pas</u>
Gross Trapping Income <sup>1</sup>	\$ 781	\$ 291	\$1,272	\$ 251	\$1,349
Net Trapping Income <sup>1</sup>	-4	-496	759	-479	216
Gross Commercial Fishing Income <sup>2</sup>	466	300	32	--- <sup>3</sup>	1,585
Income from Other Employment	2,620	591	6,032	793	3,119
Transfer Payments (All Sources)	2,734	5,311	1,138	3,277	1,100
Total Gross Income from All Sources	6,601	6,493	8,474	4,321	7,153
Operating Expenses for Trapping	405	445	235	371	576

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management Wild Fur Production Statistics, 1974-1975.

1. The gross and net trapping income calculations include those trappers with no production or whose production is included on another trappers production record. Production records for 1974-1975 were unavailable for thirteen of the fifty-nine trappers interviewed. Also, the net trapping income calculations included depreciation costs and gross trapping income excludes income in kind.
2. Average gross commercial fishing income was calculated by adding the average gross income from trapping other employment and transfer payments and subtracting this figure from total gross income. Information regarding commercial fishing expenses was not collected for the trappers interviewed. Hence, net commercial fishing income was not calculated.
3. There is no commercial fishing at Tadoule Lake.

Table 3. Duration of Employment (In Weeks and Percentage of Year) and Average Gross Weekly Earnings (In Dollars) for the Trappers Sampled

Type of Employment	Cross Lake			Porcupine-Barrows			Tadoule Lake			The Pas		
	Weeks	Percent-age	Average Gross Earnings <sup>1</sup>	Weeks	Percent-age	Average Gross Earnings <sup>1</sup>	Weeks	Percent-age	Average Gross Earnings <sup>1</sup>	Weeks	Percent-age	Average Gross Earnings <sup>1</sup>
Trapping	11	21%	\$ 26.00	16	31%	\$ 80.00	14	27%	\$ 18.00	17	33%	\$ 80.00
Commercial Fishing <sup>2</sup>	1	2%	\$300.00	1	2%	\$ 32.00	-- <sup>3</sup>	-- <sup>3</sup>	-- <sup>3</sup>	12	23%	\$132.00
Other Employment	11	21%	\$ 54.00	27	52%	\$223.00	7	13%	\$113.00	20	38%	\$156.00
Sub Total	23	44%		44	85%		21	40%		49	94%	
Unemployment <sup>4</sup>	29	56%		8	15%		31	60%		3	6%	
Total	52	100%		52	100%		52	100%		52	100%	

SOURCE: Compiled from questionnaire responses and Manitoba Department of Mines, Resources and Environmental Management Wild Fur Statistics, 1974-1975.

1. Excludes income in kind.
2. Average gross commercial fishing income was calculated by adding the average gross income from trapping, other employment and transfer payments and subtracting this figure from total gross income.
3. There is no commercial fishing at Tadoule Lake.
4. Total duration of unemployment was calculated by subtracting the duration of all employment from the number of weeks in a year.

Table 4. The Statistically Significant Variables Affecting Gross and Net Trapping Income 1974-1975.<sup>1</sup>

<u>Categories and Variables</u>	<u>Gross Trapping Income</u>			<u>Net Trapping Incomes</u>		
	<u>Affect</u> <sup>2</sup>			<u>Affect</u> <sup>2</sup>		
<u>Personal Characteristics</u>	<u>Positive</u>	<u>Negative</u>	<u>None</u>	<u>Positive</u>	<u>Negative</u>	<u>None</u>
Age	X			X		
Education			X			X
Number of training courses			X			X
Trapping experience			X			X
Number of languages spoken			X			X
Number of languages read			X			X
Number of languages written			X			X
<u>Alternative income Opportunities</u>						
Total weeks other employment			X			X
Total income from all other employment			X			X
Total income from all other sources			X			X
<u>Time Invested Characteristics</u>						
Total weeks spent trapping	X					X
Number of visits to traps per week			X			X
Total weeks spent trapping times number of visits to traps per week	X		X			X
<u>Equipment</u>						
Value of all equipment <sup>3</sup>	X					X
Value of ARDA equipment	X					X
Value of non-ARDA equipment			X			X
Number of traps in use			X			X
Length of trapline			X			X
Number of support facilities			X			X
<u>Resource Base</u>						
Category of fur bearing animal trapped (short or long hair)	X			X		

SOURCE: Results of the regression analysis.

1. Due to incomplete or absent information given in the questionnaire responses only forty-six of the fifty-nine questionnaires were used for the purposes of the regression analysis.
2. Positive, negative or no affect refers to the regression coefficient.
3. This variable had a significant affect on income but the purchase value of all equipment was the better predictor.

Table 5. Determinants of Gross  
Trapping Income

Variable	Regression Coefficient	Elasticity	t-Value
Age	22.578 <sup>a</sup>	.528	2.162
Weeks Trapped	23.370 <sup>a</sup>	.163	1.415
Total Value of Equipment	.474 <sup>b</sup>	.458	3.877
Category of Fur Bearer	713.8 <sup>a</sup>	.168	2.541

Source: Results of the regression analysis

<sup>a</sup>Indicates significance at the 95 percent level

<sup>b</sup>Indicates significance at the 90 percent level

Table 6. Determinants of Net Trapping Income

Variable	Regression Coefficient	Elasticity	t-Value
Age	22.958 <sup>a</sup>	.889	2.313
Category of Fur Bearers	749.24 <sup>a</sup>	.292	2.844

Source: Results of the regression analysis

<sup>a</sup>Indicates significance at the 95 percent level

Durbin Watson = 1.597

Table 7. The Average Purchase Values of Trapping Equipment (In Dollars and Percentages for the Trappers Interviewed.

<u>Purchase Time</u>	<u>Total Sample</u>		<u>Cross Lake</u>		<u>Porcupine-Barrows</u>		<u>Tadoules Lake</u>		<u>The Pas</u>	
	<u>A.P.V. (\$) <sup>1</sup></u>	<u>A.P.V. (%)</u>								
A.P.V. of trapping equipment purchased before receipt of Special ARDA assistance	\$ 487	23%	\$ 713	33%	\$ 342	21%	\$ 366	19%	\$ 529	20%
A.P.V. of trapping equipment received from Special ARDA Program	\$1,022	50%	\$1,108	51%	\$ 898	55%	\$1,121	60%	\$ 956	36%
A.P.V. of trapping equipment purchased after receipt of Special ARDA assistance	\$ 563	27%	\$ 342	16%	\$ 392	24%	\$ 397	21%	\$1,160	44%
<b>Total</b>	<b>\$2,072</b>	<b>100%</b>	<b>\$2,162</b>	<b>100%</b>	<b>\$1,632</b>	<b>100%</b>	<b>\$1,884</b>	<b>100%</b>	<b>\$2,645</b>	<b>100%</b>

SOURCE: Compiled from questionnaire responses.

1. A.P.V. means average purchase values.

Table 8. Additional Uses of Trapping Transportation Equipment (By the Number of Times Cited)

		TRANSPORTATION EQUIPMENT								
		Number of Times Use Cited Per Piece of Equipment								
LOCAL FUR COUNCIL	ADDITIONAL USES OF EQUIPMENT	Rank	Total number of times use cited	Motor	Canoe	Boat	Snowmobile	Sleigh	Truck	Tractor
THE PAS	A. Shopping	5	1	-	-	-	1	-	-	-
	B. Recreation	3	5	-	2	-	3	-	-	-
	C. Visiting friends in Community	4	2	-	-	-	2	-	-	-
	D. Visiting friends outside Community	4	2	-	-	-	2	-	-	-
	E. Emergency transportation	6	-	-	-	-	-	-	-	-
	F. Hauling wood and/or water	5	1	-	-	-	1	-	-	-
	G. Domestic hunting and/or fishing	1	30	6	11	1	8	2	-	-
	H. Commercial fishing	2	19	5	6	2	4	2	-	-
	I. Other Uses	4	2	-	-	-	2	-	-	-
		Total	-	-	11	19	3	23	4	-
	Rank	-	-	3	2	5	1	4	-	-
PORCUPINE-BARROWS	A. Shopping	-	-	-	-	-	-	-	-	-
	B. Recreation	2	3	-	-	-	3	-	-	-
	C. Visiting friends in Community	4	1	-	-	-	1	-	-	-
	D. Visiting friends outside Community	-	-	-	-	-	-	-	-	-
	E. Emergency Transportation	-	-	-	-	-	-	-	-	-
	F. Hauling wood and/or water	-	-	-	-	-	-	-	-	-
	G. Domestic hunting and/or fishing	1	8	3	3	2	-	-	-	-
	H. Commercial fishing	3	2	1	1	-	-	-	-	-
	I. Other uses	-	-	-	-	-	-	-	-	-
		Total	-	-	4	4	2	4	-	-
	Rank	-	-	1	1	2	1	-	-	-
TADOULE LAKE	A. Shopping	3	3	-	-	-	3	-	-	-
	B. Recreation	-	-	-	-	-	-	-	-	-
	C. Visiting friends in Community	4	1	-	-	-	1	-	-	-
	D. Visiting friends outside Community	4	1	-	-	-	1	-	-	-
	E. Emergency transportation	-	-	-	-	-	-	-	-	-
	F. Hauling wood and/or water	2	15	-	2	-	13	-	-	-
	G. Domestic hunting and/or fishing	1	31	8	10	-	13	-	-	-
	H. Commercial fishing	-	-	-	-	-	-	-	-	-
	I. Other uses	-	-	-	-	-	-	-	-	-
		Total	-	-	8	12	-	30	-	-
	Rank	-	-	3	2	-	1	-	-	-
CROSS LAKE	A. Shopping	2	14	1	2	1	11	-	-	-
	B. Recreation	6	5	-	1	-	4	-	-	-
	C. Visiting friends in Community	3	11	2	3	-	6	-	-	-
	D. Visiting friends outside Community	8	1	-	-	-	1	-	-	-
	E. Emergency transportation	-	-	-	-	-	-	-	-	-
	F. Hauling wood and/or water	4	10	-	-	-	10	-	-	-
	G. Domestic hunting and/or fishing	1	29	5	10	-	13	1	-	-
	H. Commercial fishing	5	9	1	4	-	4	-	-	-
	I. Other uses	7	2	-	-	-	2	-	-	-
		Total	-	-	9	20	-	51	1	-
	Rank	-	-	3	2	-	1	-	-	-
TOTAL SAMPLE				32	55	5	108	5	-	-
				3	2	4	1	4	-	-

SOURCES: Compiled from questionnaire responses.

Table 9. Problems Regarding the Trapping Industry as Cited by the Trappers Interviewed, By Number of Times Cited.

<u>Association</u>	<u>Problems</u>	<u>Number of Times Problem Cited By The Trappers Interviewed</u>
Cross Lake Local Fur Council	Price of fur is too low relative to the operating costs.	8
	Fur bearing animal population has been reduced due to flooding in area.	5
	Special ARDA should grant money for grubstakes, trail cutting and repairs to cabins.	4
	Trapper education officer should come and see trappers about their problems.	2
	Need more equipment so his son can come on trapline.	2
	Snowmobiles aren't as reliable as dog teams are.	2
	Should have a central warehouse on an island where local trappers can store their equipment.	1
	Special ARDA should make money available for airplane fares to trappers with lines farthest from community because it cost so much to take their snowmobiles there.	1
	Doesn't get a fair price for his pelts from local fur buyer.	1
	Local fur council needs more authority over the distribution of Special ARDA equipment to trappers.	1
	Need an equipment repair shop in community	1
	Local fur councils should not argue amongst themselves so much. They should work in harmony.	1
No problem cited	1	

Table 9. Problems Regarding the Trapping Industry as Cited by the Trappers Interviewed, By Number of Times Cited (continued)

<u>Association</u>	<u>Problems</u>	<u>Number of Times Problem Cited by the Trappers Interviewed</u>
Tadoule Lake Local Fur Council	No problems cited.	8
	Gasoline does not come to the community on a regular basis.	7
	No nets to catch fish to feed dog team.	4
	Price of pelts is too low.	3
	Requires more equipment to go out trapping.	3
	Lack of fur bearing animals in area.	3
	Dog teams are more reliable than snowmobiles.	3
	There is a shortage of gasoline in the community during the trapping season.	2
	Lack of ammunition.	1
	Did not get proper share of equipment from joint Special ARDA grant.	1
	Takes a long time to get money if pelts are sent away to be sold.	1
	Need a mechanic in the community to repair equipment to reduce the time lost trapping by sending equipment outside community to be repaired.	1
	Need financing to fly into more remote areas where there is more fur.	1
	Sleighs received from Special ARDA are too awkward to pull through the bush.	1

Table 9. Problems Regarding the Trapping Industry as Cited by the Trappers Interviewed, By Number of Times Cited (continued)

<u>Association</u>	<u>Problems</u>	<u>Number of Times Problem Cited by The Trappers Interviewed</u>
Tadoule Lake Local Fur Council	Some trappers in the community are not interested in trapping.	1
	Trapping season needs to be longer.	1
The Pas Local Fur Council	No problems cited.	4
	Need a helper on the trapline.	3
	Need two-way radio on trapline in case of emergencies and keep in touch with family.	2
	Special ARDA equipment grants are not high enough to cover the cost of a good snowmobile.	1
	Require a lot of money to start trapping in the fall.	1
	Do not receive a fair price for pelts from fur buyer.	1
	Water control dam down river upsets animal populations.	1
	Need new cabin closer to the start of trapline to reduce number of portages he would have to make.	1
	Trappers drink to much and welfare decreases the incentive to go out trapping.	1
	Special ARDA should help only those who really want to trap.	1
	Fur bearing animal population has decreased due to Ducks Unlimited draining lakes in trapping area.	1
Too many trappers in The Pas trapping area.	1	

Source: Compiled from questionnaire responses.

Table 9. Problems Regarding The Trapping Industry as Cited by the Trappers Interviewed, By Number of Times Cited (continued)

<u>Association</u>	<u>Problems</u>	<u>Number of Times Problem Cited By The Trappers Interviewed</u>
Porcupine-Barrows Local Fur Council	No problems cited	1
	Price of fur is too low relative to operating cost.	7
	Lack of equipment to get around to all places on his trapline.	4
	Welfare decreases the incentive for trappers to trap.	3
	Too many trappers in this area; not enough fur for local trappers	3
	Should make Porcupine Barrows into a registered trapline area.	1
	Local fur council should have more control over distribution of equipment.	1
	Living conditions on trapline are inadequate, should have better cabins and two-way radios.	2
	Trapping season should be shorter for certain fur types to get better quality pelts.	2