LEGISLATIVE ASSEMBLY OF THE NORTHWEST TERRITORIES

10TH ASSEMBLY, 8TH SESSION

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Renewable Resources Project

volume 1

economic development plan

MacKenzie Delta Regional Council
Inuvik, N.W.T. X0E 0T0

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Acknowledgements

Many people participated in this project; without their guidance and assistance it could not have been completed.

For making possible my working with the Delta, for their input into the design of the proposal, and for their unfailing support when called upon, I am indebted to Jennifer Mauro in Whitehorse, Lynne Dee Trudeau and Ted Jackson of E.T. Jackson & Associates in Ottawa.

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A special thanks is due to all those people who participated in the interviews in the four communities. The hard work and meticulous attention to detail of the interviewers have resulted in a solid body of information that will allow the Regional Council to make your case in recommending policy changes to both levels of government, especially in support of hunters and trappers and crafts producers, and that will further your own internal planning. The interviewers from each community are listed in Volume Two, Appendix 3.5.

We are also grateful to all those people in the communities who agreed to participate in the interviews, and who patiently and graciously gave us much valuable information. Without their co-operation this work would not have been possible, and we hope the results adequately return their trust and support.

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firms involved in the production are noted in the credits on the videos. Special thanks is due to John, Caroline Selwyn, Brian, and Sheldon Kaye for their willingness to share their life on the trapline, and for their tremendous hospitality to us, in true Dene fashion. Their way of life continues to provide direction to me, long after we left their home at Aajakwichanui.

I am glad to have had the opportunity of working with Debbie Delancey and Fee-Yee Consulting Ltd. of Fort Good Hope. The analysis of the project interviews benefited from Debbie's community experience, and from her insight into the hunting and trapping way of life in the North.

The Regional Council is indebted to the Economic Development Agreement for its funding of this project. In particular, we would like to note that it provided an extension to our initial funding at a very crucial point in the process, without which we would have had a very difficult time continuing. Bernie Perlman of the Department of Indian Affairs and Northern Development, and Russ Hall and Shorty Tinling of the Department of Renewable Resources made valuable comments and suggestions throughout the life of this project. I am grateful for their support and encouragement, and for their understanding of the community planning process.

I am very grateful to Kate Hamilton, whose editorial assistance, encouragement, and word processing skills were an invaluable contribution to the production of this Final Report.

I would like to thank the leadership of the Mackenzie Delta Regional Council -- the Executive, the Chiefs, and the Metis Local Presidents -- for their participation, especially in the community consultation phase, and for their support and direction to me, especially during the writing of the Development Plan. In particular, I would like to note the major contribution of the Council's Executive Director, Bob Simpson, to all aspects of the implementation of this project, and for his consistency and willingness in providing support and encouragement to me as project co-ordinator.

Most of all I am indebted to the many individuals and families in the Delta communities who have welcomed me into their homes, and shared their traditions, their friendship, and their vision of a better future.

Planning -- and re-planning in the face of changing circumstances -- can go on forever. To be truly effective and truly worthwhile, plans must be implemented. I would like to thank the Delta Dene/Metis people for giving me the privilege of working with you during this planning stage, and wish you well

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as you embark upon the challenging and long-term tasks of implementation that lie in the years ahead.

To the Delta Dene and Metis people who gain their life from the land, this Final Report and Development Plan is respectfully dedicated.

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EXECUTIVE SUMMARY

As part of its long-term comprehensive planning and development program, the Mackenzie Delta Regional Council representing the Done and Metis in Inuvik, Arctic Red River and Fort McPherson has identified the renewable resource economy as a sector it wants to strengthen and expand. In November 1984 the Council began a Community Research and Education Program funded by the Economic Development Agreement to examine the potential for development of the fur industry in the Delta. The project was designed to:

(1) make recommendations to the Regional Council, the communities, and the local Hunters and Trappers Associations on the economic development of the fur industry;

(2) have input into the formation of government policy on support for the renewable resource sector in general and the fur industry in particular;

(3) provide information on the conditions of trappers and hunters in the Delta with which to counter the anti-fur campaign.

As the project progressed, it became clear that what was needed was a long-term, sector-by-sector approach to the development of renewable resources, not just a plan for the development of the fur industry alone. The project expanded from five months to over one year, and additional funding was provided by the EDA.

The project took place in four phases:

(1) interviews with hunters and trappers and crafts producers;

(2) production of videotapes on "How the Fur Trade Works" and "Planning a Better Future";

(3) Community Workshops with trappers and various community groups on the structure and development of the renewable resource sector;

(4) production of an Economic Plan for the development of the renewable resource sectors of hunting/ trapping, crafts, tourism, fishing, and forestry.

The final report of this project is contained in two volumes. Volume 1 contains the Renewable Resources Economic Development Plan, which provides a sector-by-sector guide for the development of seventeen projects in hunting and trapping, crafts, tourism, fishing, and forestry. It also contains the analysis by Fee-Yee Consulting Limited of Fort Good Hope of interviews with approximately 160 hunters and trappers and crafts producers. Volume 2 contains background information on the development of the project that may be of interest to researchers and specialists.

From interviews with Delta trappers and hunters and crafts producers, the picture emerges of the family as the primary unit of production in bush activities. Women's work and skills -- directly in skinning and pelt preparation and indirectly through camp activities and garment production -- are an integral part of production. Successful support for on-the-land activities must therefore integrate women's training and participation in all sectors, without which bush activities would be radically altered.

From our interviews and historical research, it is clear that trapping participation has increased despite an overall decrease in fur prices and substantial increases in costs of production. Clearly, trapping and hunting constitute a lifestyle choice not propelled by economic gain. However, there is cause for concern about the long-term health of the industry under such conditions. The Renewable Resources Development Plan is designed to address these problems, and proposes infrastructural, training, research, and support programs for all the renewable resource sectors of hunting and trapping, crafts, tourism, fishing, and forestry.

The greatest part of the Development Plan (ten of the proposed seventeen projects) deals with the fur and crafts industries, because of their current importance to Delta communities and because of their potential for development. Each of these projects contains the following information:

- background information on levels of participation and general importance to the communities, including analysis of the interviews, where applicable;
- statement of the problems the need to be dealt with in the development of the project or sector;
- proposed phases for dealing with these problems and step-by-step plans for implementation;
- financial and staffing requirements for implementation;

- a time schedule outlining the time required for implementing each phase.

Total financial requirements for the implementation of this Development Plan over the course of the next two-three years will be approximately $1,609,000-$1,809,000.

It is proposed as part of this Development Plan that implementation of the projects outlined above take place through the following mechanisms:

(1) creation of a Renewable Resources Co-ordinator staff position within the Regional Council to work with the communities, local and outside consultants, and government agencies;

(2) creation of a Joint Dene/Metis-Government of the Northwest Territories Management Committee.

This will establish the Regional Council's organizational framework within which future development can take place.

In a Renewable Resources Workshop held in Fort McPherson in March 1986, the Regional Council and community delegates ratified this Development Plan and identified their community and regional priorities for imnplementation over the next two years.

Delta people are all too familiar with the instability of the boom-and-bust cycles caused by the non-renewable-resource economy. It is increasingly apparent, especially with the decline in the oil industry in the region within the last six months, that regional development must include a comprehensive, long-term strategy for renewable resource development. The Regional Council places priority on renewable resource development and establishes this Economic Development Plan as its guide for development within the Delta communities during the next few years.

SUMMARY OF PROPOSED PROJECTS

Fur Industry/ Hunting/Trapping

Project	Objectives	Time Frame	Cost
Supplies warehouse	decrease costs of equipment consistent supply of equipment	15 months	$437,000
Aklavik Fur Garment Shop	start up shop again provide jobs/income	27 months	299,000 to 499,000
Incentive/ Subsidy Program	comprehensive support - guaranteed income - production incentives - supplies warehouse - beginners' capital support	9 months	30,000
On-the-Land Program	training in all aspects of living on the land	14 months	55,000
HTA Develop't Program	build strong community/ regional HTAs	11 months	99,000
Habitat Management/ Conservation	environmental research for protection of furbearers	14 months plus 5-year research pgm.	86,000

Crafts

Project	Objectives	Time Frame	Cost
Community/ regional production/ marketing organizations	lower supplies cost producer-controlled outlets steady supply of hides	15 months	$ 59,000
Crafts Development	train young people in crafts production & marketing	26 months (incl. 17-month pilot projects)	72,000
Young Crafts-People Training	train young people in crafts production/ marketing	15 months	72,000

Tourism

Project	Objectives	Time Frame	Cost
Community/ Regional	develop Dene/Metis-controlled projects	20 months	$ 78,000

Fishing

Project	Objectives	Time Frame	Cost
Feasibility studies; Biological research	develop commercial fishing potential	24 months	260,000

Forestry

Project	Objectives	Time Frame	Cost
Forest inventory; Wood products feasibility study	develop commercial forestry potential	14 months	47,000

PRINCIPLES

The following overall principles guide the planning and development of renewable resources in the Mackenzie Delta communities. Each of the sectors outlined in subsequent sections of this plan has its own prinicples particular to itself, but all sectoral principles fall in alignment with those for the Development Plan as a whole.

1. Renewable resource development will be carried out in a manner that respects and is consistent with Dene/Metis values of sharing, co-operation, living in harmony with the environment, and with conservation and preservation of resources for future generations.

2. Priority for renewable resource development is to be placed on satisfying the subsistence needs of Dene/Metis. Only when these needs are satisfied will other uses of a commercial nature be developed.

3. Planning and development of renewable resources will take place in an integrated manner, recognizing the interrelationship and interdependence of the Dene/Metis people with the environment. It is necessary to develop plans that:

- o will approach the development of people and resources in an integrated, holistic way, recognizing that impact on one sector will have an impact on other renewable resource sectors;
- o will minimize land-use conflicts among renewable resources sectors;
- o will enhance the long-term development of Dene/Metis people and their environment.

4. Renewable resource development will maximize community and regional ownership and control of resources; the benefits of that development, such as income and employment, will flow to the Dene/Metis people.

5. Community self-reliance will be strengthened through renewable resource development.

6. Renewable resource development will take place on a sectoral basis, providing opportunities in each of the following sectors:

- o hunting and trapping
- o crafts
- o tourism
- o fishing
- o forestry

Renewable resource development will take place in a diversified manner, incorporating projects and programs in all of these sectors as far as possible.

7. Renewable resource planning and development will be based on long-term goals and priorities, which will be implemented in a planned and phased manner through the setting of short-term objectives; people should "think big and start small."

8. Renewable resource planning and development uses a developmental approach, incorporating three major elements:

- * the development of specific programs;
- * the development of skills through training programs;
- * the development of infrastructure to support projects and programs.

9. Renewable resource development will encourage the secondary processing or manufacturing of renewable resource products such as fur garments, crafts, toboggans, etc., in order to capture as much commercial value as possible for Delta producers.

10. Renewable resource planning and development will be based on community participation in decision-making and implementation.

1. INTRODUCTION TO THE PROJECT

1.1 Background and Goals

As part of its long-term comprehensive planning and development program, the Mackenzie Delta Regional Council representing the Dene and Metis in Inuvik, Aklavik, Arctic Red River, and Fort McPherson has identified the renewable resource/traditional economy as a sector it would like to strengthen and expand. The Regional Council has taken a long-term perspective towards the development of this sector, with a view to ensuring jobs and opportunities both during and after the anticipated oil and gas development and pipeline boom. In addition, both leaders and community people have expressed concern and fear about the loss of skills and interest in land-based activities among the current generation of young people, and have identified the need to developed effective training programs, as well as to provide opportunities to change this situation. With these interests in mind, then, in July 1984 the Regional Council developed a "Proposal for a Community Research and Education Program" for renewable resource development. The proposal was funded in the fall of 1984, and in November 1984, with the arrival in the Delta of the project co-ordinator, work to implement the project was begun.

The project was designed to generate information to be used in three separate areas:

1. First, to make recommendations to the Regional Council, the communities, and the local Hunters and Trappers Associations on the economic development of the fur industry, which would then be used as an internal planning document.

2. Second, to have input into the formation of government policy on support for the renewable resource sector in general, and the fur industry in particular.

3. Third, to provide specific information on the actual conditions and context of trapping by Native trappers in the Mackenzie Delta, in order to provide an effective counter to the propaganda campaigns of Greenpeace, the Royal Society for the Prevention of Cruelty to Animals, and other anti-fur and animal welfare groups.

At the inception of the project the short-term goal was to generate information leading to:

1. the improvement in cost-effectiveness of harvesting and production of fur in the Delta; and

2. the identification of secondary industries based on fur production, for feasibility studies.

The long-term goals were:

1. the strengthening of the renewable resource sector in the Mackenzie Delta; and

2. the increase, thereby, of Delta Dene/Metis self-reliance.

1.2 Process

After numerous discussions (November 1983 to May 1984) with Regional Council consultant Jennifer Mauro, the project co-ordinator wrote the initial proposal for this project with Lynne Dee Trudeau of E.T. Jackson and Associates, in Ottawa. The proposal was discussed at a subsequent Regional Council meeting in June and, as an application for funding, was submitted without substantial changes by the Regional Council to the Economic Development Agreement (EDA). Funding was approved by the EDA in late August; a contract between the Regional Council and the EDA was signed in the fall; and with the arrival of the project co-ordinator in the Delta in mid-November 1984 the project began.

The project was designed for a five-month period, addressing the following four objectives or phases:

Phase 1: Interviews with hunters and trappers, to assess the current organizational structure of the Mackenzie Delta and Canadian fur industry.

Phase 2: Production of education materials for community and public education on the fur industry and its potential development.

Phase 3: Workshops with trappers and various community groups on the structure and development of the fur industry.

Phase 4: Recommendations for more efficient and cost-effective organization and for the development of viable economic enterprises based on the Delta fur industry.

The focus and goals of the project began to change as discussions with leaders and resource people provided input to project staff. It very quickly became obvious that, in studying the fur industry, it would also be important to interview crafts people, particularly those sewing with fur and therefore dependent on fur production. In addition, we were advised that the audio-visual tool on the fur industry for the community workshops should be produced on videotape rather than being a slide/tape show as originally planned. Perhaps the biggest change resulted from the expansion of the original project focus -- the fur industry -- to all sectors within the renewable resource economy: hunting and trapping, crafts, tourism, fishing, and forestry. We increasingly realized that we were focusing on various sectors within renewable resources, and not only on the fur industry; and that we needed to take a longer-term and integrated, sector-by-sector approach to renewable resource development. This focus is consonant with the Council's recent work on the formulation of an overall economic development plan. As a result, the goal changed to the production of a Five-Ten Year Renewable Resources Development Plan, rather than recommendations for the development of the fur industry alone.

These changes in goal and focus required that the time necessary to complete the project be expanded from five months to one year. The title of the project was changed from the "Fur Market Study" or "Fur Industry Support Project" to the "Renewable Resources Support Project." Despite these changes, however, the original design of the project phases remained the same: interviews, audio-visual production, community consultation, and final report and recommendations. Because of time constraints, analysis of the more than 160 interviews was subcontracted to Fee-Yee Consulting Ltd. in Fort Good Hope.

The project phases, which tended to overlap, were implemented during the following periods:

Phase 1:	Interviews with Hunters/Trappers and Crafts People	February-August 1985
Phase 2:	Video Production	January-July 1985
Phase 3:	Community Consultation	July-November 1985
Phase 4:	Final Report and Renewable Resource Development Plan	November-December 1985

To complete the phases and work requirements, it was once again necessary to raise funds. In mid-June a second proposal to the EDA met, fortunately, with agreement to continue funding, which allowed the project to be finished without substantial cost overruns for the Regional Council.

1.3 Results

The Renewable Resources Support Project has produced three separate but interrelated products during its year of operation.

The first is the two videos that have been used in consultation workshops and circulated within the communities. These are entitled "How the Fur Trade Works" and "Planning a Better Future," and are now available for purchase upon request to the Regional Council.

The second product is the summary, analysis, conclusions, and recommendations of the 133 interviews with the hunters and trappers and crafts people in the four Delta communities. The report on these interviews produced by Fee-Yee Consulting Ltd. is contained in Volume I, Appendix 4 of this report.

The third product is the Five-Ten Year Renewable Resources Development Plan, which outlines principles for renewable resources development and provides a sector-by-sector guide for the development of seventeen projects in hunting and trapping, crafts, tourism, fishing, and forestry.

1.4 Final Report

The Final Report of the Renewable Resources Support Project consolidates these various reports, the Economic Plan, and background information, and is organized into two volumes.

The first volume, Renewable Resources Project: Economic Development Plan, highlights the Five-Ten Year Economic Development Plan for renewable resources. The Plan sets out a framework of general development principles, and outlines

seventeen projects in the sectors of the fur industry/hunting and trapping, crafts, tourism, fishing, and forestry, that could be researched and developed over the course of the next ten to twenty years. Its key appendix contains the "Report on the Analysis of Interviews with the Hunters and Trappers and Crafts Producers" prepared by Fee-Yee Consulting Ltd. The Plan and the analysis of the interviews are intimately connected: the Plan was designed to address some of the problems identified in interviews by the hunters and trappers and crafts producers, as well as those problems arising from the project staff's background research into costs, incomes, and fur prices.

In designing the methodology of this project, it was decided that the views and context of the hunters and trappers and crafts producers must be clearly understood, and used to shape the strategy to develop these sectors. It was also felt that, if community people were involved in the project through participation in the interviews, the resulting Development Plan would more accurately reflect their needs and they would more likely become involved in project implementation.

As will be noted in greater detail in the introduction to the Development Plan itself, the greatest part of the Plan (ten of the proposed seventeen projects) deals with the fur and crafts industries. This is because of the historical importance and current participation in those sectors, as well as because of their potential for development. In addition to fur and crafts, however, local leaders and community people have identified economic development opportunities in the areas of fishing, forestry and tourism. Fishing and forestry offer a solid base to build upon, while great potential exists for local Dene/Metis people to promote and control their own tourism projects.

The Appendices of Volume I provide background information on the terms of reference for the proposed Renewable Resources Co-ordinator, the terms of reference for the proposed Joint Management Committee, the initially proposed Five-Ten Year Development Plan (which has since been revised by delegates at the March 1986 renewable resources workshop), guidelines for project summaries, and, as mentioned above, Fee-Yee's "Report on the Analysis of the Interviews with Hunters and Trappers and Crafts Producers."

The second volume of this Final Report, Renewable Resources Project: Background Project Documentation, contains information on many aspects of the project, including the initial proposal (on the basis of which the project was funded), project methodology (interview development, sampling,

training of interviewers, etc.), and so forth. This second volume is intended for those with a specialists' interest in this project, who might want to know more about the process and methodology of the research work itself. Such specialists might include researchers and development workers within other Native or rural organizations who want to examine this as a case study for its relevance to their own areas; or people who want to use specific information from the interview analysis in the struggle against the anti-trapping or anti-fur groups such as Greenpeace. We want to provide background of this sort in order that others may learn from our experiences -- and particularly from those things we would do differently next time.

2. RENEWABLE RESOURCES DEVELOPMENT PLAN

2.1 Introduction

The rest of this chapter on the Renewable Resources Development Plan discusses its proposed implementation, from its original conception as a longer Five-Ten Year Plan to its evolution to a shorter Two-Year Plan, based on feedback from participants at the Fort McPherson Workshop on Renewable Resources in March 1986. Sections 2.2 to 2.5 outline the planning structures, activities and staffing, training and finances required to implement this proposed Two-Year Plan.

The rest of this Volume (contained in chapters 3 through 7) outlines the guiding principles, proposed projects and implementation requirements to develop each of the five sectors of the renewable resources economy: trapping, crafts, tourism, fishing and forestry. This is the core of the Renewable Resources Economic Development Plan itself. The greatest part of the Plan (ten of the proposed seventeen projects) deals with the fur and crafts industries. The members of the Regional Council directed staff to emphasize these sectors for two reasons. The first is their importance: fur and crafts production already form the basis of renewable resources in the Delta; significant numbers participate in these activities; and revenues generated from the the products are important to local people and their families. The second reason is their potential: it is evident that the potential exists for expanding production in both activities, provided that there are improvements in production techniques, marketing, and the organization of purchase of supplies.

In addition to fur and crafts, however, local leaders and community people have identified economic development opportunities for generating employment and income in the areas of tourism, fishing and forestry. Fishing and forestry offer a solid base to build upon, since fish and wood/wood products historically were produced in fairly large quantities. However, it is also necessary, in both sectors, to do extensive biological research to ascertain the range and capacity of the resource base, so that this information may be used as the basis of plannng for subsistence and commercial development. The Development Plan for these sectors therefore involves a combination of research and specific projects.

Although there are currently few examples of local Dene/Metis-controlled tourism in the Delta, great potential exists for local people to promote and control their own tourism projects, rather than being the passive objects of outside interest. At this early stage, it is crucial that local Dene/Metis identify what kind of tourism they want to see, as well as specific projects as priorities for implementation. The impacts from tourism can be negative as well as positive: local control over its development is important.

Special note should be made of the chapter on the fur industry, because it is generally more detailed than the discussion on the other sectors. Analysis was undertaken of fur statistics in order to illustrate the context within which trappers and hunters operate in the Delta communities, especially in terms of their incomes, participation and commercial harvest volumes and values over the ten-year period between 1974/75-1984/85. In addition, this section also contains an assessment of the trends in fur prices on a per-species basis over the same ten-year period. With trapper participation up overall, with fur prices and returns down for most species, and with costs of production on the increase over the ten-year period, it is very clear that people in the Mackenzie Delta communities are not trapping just to make money.

Each of the proposed projects is described according to the following format: the introduction sets out the reasons for developing the project; where relevant, the results of the Fee-Yee interview analysis that shaped the design of the project; background on the efforts made to date; and the goals and objectives of the project. The tourism, fishing and forestry sectors also contain principles which are proposed to guide their development, and to which the various projects should conform. The follow-up required for implementation varies from project to project, depending mostly on the extent of development of the project to date. Where applicable, options are suggested for ownership and management of particular businesses, with an accompanying discussion of the advantages and disadvantages of each. The suggested phases for the implementation of each project usually incorporate:

- o recommendations for further research requirements, where necessary;
- o communty consultation;
- o outline of feasibility studies, where proposed;
- o experimental or training components required;

- mechanisms or structures for implementation, for example, through the Joint Management Committee.

Each project description concludes with a list and a chart. The list summarizes the financial and staffing requirements of the project. The chart sets out in more graphic form the phases and time frames anticipated for project implementation.

Each of the project descriptions is meant to serve as the nucleus of a proposal which can then be written up and submitted for funding separately, recognizing, of course, that more work needs to be done to add detail to this skeletal framework.

Beyond issues relating immediately to program details discussed in the following sections -- some broader questions must be addressed by the appropriate bodies, in particular: which regional institution among those established by the Mackenzie Delta Dene and Metis should have functional responsibility for implementing this Development Plan. No recommendations are being put forward here; it is felt that much more discussion on the issues needs to take place within the Mackenzie Delta Regional Council and the Mackenzie Delta Regional Development Corporation before a decision can be made. In the meantime, it is hoped that the raising of key questions here will further the internal debate. It is also felt that the issues and problems are distinct enough to warrant specific attention in a special section.

The key issue is the creation of the institutional framework for the implementation of this Development Plan. The questions raised include:

(1) What will be the primary implementing institution for the Development Plan? Possibilities include the Mackenzie Delta Regional Development Corporation, the Mackenzie Delta Regional Council, or a newly-formed institution.

- If the Regional Council takes responsibility, what will happen to the institutional separation between political and economic development?

- If the Regional Development Corporation takes responsibility, it will have to change its current orientation toward profit-making ventures to include non-profit-making ventures and support projects.

(2) Will the Plan be dealt with as an integrated whole by one institution, or will various components be dealt with

by separate institutions? For example, the economic ventures might be taken over by the Regional Development Corporation, while the various training and support projects might fall under the wing of the Regional Council.

(3) What will be the relationship between the institutions that might get set up now to begin implementation and the institution(s) to be established as part of a Dene/Metis land settlement (particularly the proposed Wildlife Managment Board and a Delta Regional Land Use Planning Commission)?

(4) What will be the relationship between the implementing institution (of whatever form) and the community organizations, in particular, the Hunters and Trappers Associations, the Band Councils and the Metis Locals?

- It could be that for ease of implementation, this relationship is worked out on a project-by-project basis, with extensive energy being put into examining effective community consultations and local control and direction.

- In particular, how will implementation of the Development Plan be made accountable to the communities?

- It will be important to work out the division of powers and responsibilities between the communities and the regional level so that, on a project-specific basis and/or on an overall basis, all participants are clear.

Discussion on these relationships and issues was begun at the Renewable Resources Workshop in Fort McPherson, March 18-20, 1986. Participants indicated that they felt there is a definite need for the communities and the Regional Council to work together: the Council has expertise and resources that can support and benefit the communities, and the communities themselves must direct the definition and implementation of projects at the local level. Each community must be able to define its own priorities, work at its own pace, and direct its own activities. And there is certainly a role for the Regional Council to play in providing support to individual communities and in co-ordinating efforts on a regional basis.

Discussion of these questions can be concurrent with implementation of the Renewable Resources Development Plan: that is, implementation need not be delayed while these matters are thrashed out. Nor, however, should their

discussion be delayed: it is recommended that the foregoing and additional questions be put on the agendas of the Mackenzie Delta Regional Council and the Mackenzie Delta Regional Development Corporation in their forthcoming meetings, and that further direction be taken from their discussions.

2.2 Implementation: Short-Term and Two-Year Development Plan

2.2.1 Short-Term Implementation

There are two types of implementation that need to take place in order to put the Renewable Resources Development Plan into place. The first is that the Mackenzie Delta Regional Council establish its capacity to implement the Plan through:

- the creation of a Renewable Resources Co-ordinator staff position to work with the communities, outside experts and government agencies on projects identified in this Development Plan and elsewhere;
- the creation of a Joint Dene/Metis-Government of the Northwest Territories Management Committee to guide the implementation of this Development Plan.

This will establish the Regional Council's organizational framework within which future long-term development can take place.

The second type is project-specific implementation. Once the Renewable Resources Co-ordinator position is established, that person will work with the communities on implementing the project priorities they have identified, and which form the core of this Renewable Resources Development Plan.

(a) Staffing and Consultants

It is proposed that the Regional Council develop a two-pronged approach to manpower needs for developing and implementing renewable resources policies and programs.

The first is to create, as noted above, the staff position of Renewable Resources Co-ordinator within the

Regional Council to specialize in renewable resource planning and implementation. This position is necessary in order to co-ordinate projects and to provide continuity and consistency. (The terms of reference this position are outlined below in Appendix 8.1).

The second prong of the approach is to hire consultants with various areas of expertise on an as-needed basis to work on specific projects. This is necessary because no one person is going to be able to provide specialized expertise in all sectors, for example, from crafts to tourism. In addition, it will not be necessary for project consultants to stay full time in the Delta for expended periods of time. If consultants are used extensively, this reinforces the necessity for a staff person to co-ordinate their efforts.

(b) Renewable Resources Co-ordinator

The staff position of Renewable Resources Co-ordinator is necesary in order to co-ordinate the policies and projects of this long-term Renewable Resource Development Plan. It will be essential to have one person who can provide continuity from planning to implementation stages, and who can ensure consistency from one project to another.

This Renewable Resources Co-ordinator will be part of the staff of the Regional Council, reporting directly to the Executive Director and the Executive and Board of the Council. The person will also work in conjunction with the Economic Planner on the implementation of specific projects.

(c) Joint Dene/Metis - G.N.W.T. Management Committee

It is also recommended that a joint Dene/Metis-G.N.W.T. Management Committee should be formed in order to guide the implementation of this Development Plan. There are three main reasons why a Joint Management Committee should be initiated by the Mackenzie Delta Regional Council.

(1) It is very clear that G.N.W.T. through its Departments of Economic Development and Tourism and of Renewable Resources has the mandate to support regionally-initiated projects, both with its own funds, and by providing support for project proposals to joint federal-territorial funding agencies such as the Economic Development Agreement. In addition, it can provide certain areas of expertise to groups like the Regional Council. For all these reasons, therefore, it is

necessary to recognize the usefulness and expediency of working in a co-operative manner with the G.N.W.T., and the formation of a Joint Management Committee is an attempt to create a mechanism through whch a co-operative approach that meets the needs of all parties can be structured.

(2) Current economic and political conditions favour the formation of a body like the proposed Joint Management Committee. First, in general, land claims settlements are establishing this kind of mechanism as a model for Native-government relations. Second, in particular, the Inuvialuit Game Council has set up a body of this kind, and is working with G.N.W.T. on implementing its renewable resource proposals through this mechanism. In a memo to Regional Superintendents dated February 18, 1985, Shakir Alwarid, then Chief of Business Development in the Department of Economic Development and Tourism, notes that his department "strongly supported [the Inuvialuit Game Council's application to establish a joint Inuvialuit-G.N.W.T. Board], and would like to see it used as a model to be pursued in other regions and as a precedent for ARDA funding."

It is also important to note that this model provides funding for technical staff for I.D.C., and might possibly be a source of funding for the Council's proposed Renewable Resources Co-ordinator.

(3) Finally, the setting up of a committee like this is consistent with the institutional development policy of the Regional Council, which is: the desirability of the Dene/Metis to gain as much experience with management and regulation of their own affairs prior to land claims, so that a smooth implementation and transition of the final claim can be assured. Thus the Joint Management Committee should be regarded as an interim body, prior to the setting up of a joint planning and management body through the land settlement.

The Purpose and Goals of this Joint Management Committee are:

- to create a Dene/Metis and G.N.W.T. agency that will jointly plan and manage renewable resources in the Dene/Metis lands, and specifically, will implement the Regional Council's Renewable Resources Development Plan;

- to provide first-hand intergovernmental management experience to the Dene/Metis prior to the

establishment of the implementation agencies as a result of the final land settlement agreement;

- o to ensure de facto recognition of Dene/Metis rights to lands and resources, and to management of and responsibility for those lands and resources.

(d) Communication Program for Public Planning

As noted in the Principles of this Development Plan, renewable resource planning and development should be based on community participation in decision-making and implementation. The Regional Council is notable for the extent to which it has engaged in community participation in both the planning and the implementation of its policies and programs. Its on-going series of workshops on institutional development and its attempt to carry out renewable resource workshops in the development of this Plan are only two examples of this commitment to community participation in decision making. For example, the intention in producing the videos on the fur trade and on planning for the Renewable Resources Project was that they be used in community workshops on renewable resource development. It is recommended, therefore, that a staff position be created to work with the Renewable Resources Director on community participation in renewable resource planning and development. If sufficient funds cannot be found to create and maintain such a position, then at a minimum it must be ensured that all projects and programs incorporate a public awareness/community participation component into their design and implementation, and that sufficient time, resources and effort be allocated to this work.

(e) Changes in Short-Term Implementation

When the first draft of this Final report was written in December 1985, it was anticipated then that short-term implementation to create the Renewable Resources Co-ordinator position and the Joint Management Committee would begin immediately and could reasonably be accomplished within a six-month time period. It was also anticipated that funds would be raised for a feasibility study for fur products manufacturing (specifically, the re-opening of the Aklavik Fur Shop), and that this also could move forward within a six-month time frame. However, for various reasons, those developments have been delayed. As of August 1986, the Regional Council is waiting to receive word about its submission to Special ARDA to fund the position of Renewable Resources Co-ordinator. The creation of the Joint Management

Committee is dependent upon having the Renewable Resources Co-ordinator in place, so discussions with government agencies have not yet begun concretely on this issue. And the Regional Council is waiting for a bid from a Toronto-based fur production and marketing team to conduct the feasibility study on the re-opening of the Aklavik Fur Shop. Thus the following Table 2.1, Short-Term Implementation, December 1985 - June 1986 is now quite clearly out of date and behind schedule. However, it is included here because the tasks, as defined, must still be achieved, even though the time frames necessary for implementation have expanded greatly.

It should be noted that this is short-term implementation only, in order that the Regional Council as an organization may develop its capacity to implement the projects it has identified as priorities. For each of the seventeen projects outlined in the following chapters of this Development Plan, there will be a similar chart summarizing the steps necessary to implement its goals over the next few years.

RENEWABLE RESOURCES DEVELOPMENT PLAN: SHORT-TERM IMPLEMENTATION DECEMBER 1985 - JUNE 1986

	LAND USE AUTHORITY/ MDRC BOARD	STAFF POSITION: RENEWABLE RESOURCE DIRECTOR	FORMATION OF JOINT DENE/METIS - GNWT MANAGEMENT COMMITTEE	FUR PRODUCTS MANUFACTURING
December 1985			Individual meetings with Superintendents/Directors of GNWT - Economic Development & Renewable Resources: to go over Development Plan and to gain input for Memorandum of Understanding	Pre-feasibility Study
January 1986	Review and ratification of Development Plan	Funds raised for position	↓	Funds raised for Feasibility Study
February	Regional Priorities selected	Position advertised		↓
March	Workplan defined	Interviews and selection	Draft Memorandum of Understanding to form the Committee	Feasibility Study
April			Renewable Resources Position filled; first meeting of Committee to sign Memorandum of Understanding	↓
May				
June				

Table 2.1

2.2.2 Two-Year Development Plan

As part of the first draft of the Renewable Resources Development Plan written in December 1985, a suggested ordering of eighteen proposed projects over a five- to ten-year period was made. This suggested Five-Ten Year Plan appears in Appendix 8.3 of this Volume.

In March 1986, the Mackenzie Delta Regional Council held a three-day workshop in Fort McPherson, the purpose of which was to have community representatives review in detail the proposed Renewable Resources Development Plan and make appropriate revisions and additions to any and all aspects of it. During these three days, the workshop delegates broke into community groups to discuss and give feedback on each of the eighteen proposed projects, which were grouped into the five sectors of trapping/fur industry, crafts, tourism, fishing and forestry. At the end of the discussion on the projects within each sector, the participants were asked to rate each of the projects within that sector in order of priority.

As far as the proposed Five-Ten Year Development Plan was concerned, it was felt that it would be more in keeping with the process of the workshop and more participatory to build a new Development Plan based on the responses of the workshop participants during the project-by-project discussions and priority selections, rather than to present and discuss the initially-proposed Five-Ten Year Development Plan. It was also felt that a more limited two-year time framework should be adopted in order to set realistic and achievable goals. Based on participants' discussion and responses, a chart was prepared outlining a Two-Year Development Plan, and was adopted by the group in the final afternoon of the workshop. The originally-proposed Five-Ten Year Plan, now supplanted by the Two-Year Plan emerging from the community delegates themselves, has therefore been removed from this Economic Plan and relegated to Appendix 8.3 of this Volume. The Two-Year Plan as ratified by the Fort McPherson delegates appears at the end of this section.

Of the eighteen projects presented to the workshop participants, only one -- the proposed Fur Ranching/Farming project -- was rejected. Seventeen projects will now be investigated for implementation.

At the close of the workshop three resolutions were passed by the Regional Council and community delegates. These are:

1. The Renewable Resources Development Plan is approved by the Mackenzie Delta Regional Council and community delegates, with changes and modifications as directed by the delegates.

2. The six-month action plan is adopted and approved by the Mackenzie Delta Regional Council and community delegates:

a) Community workshops on planning and organizing a renewable resources working group (HTA, crafts producers, Band and Metis councils, LEA, etc.)

b) Working group to make appointments and decide working relationship with Regional Council.

c) Proposal development and approvals in communities.

d) Regional Council to do a needs identification with each community on:
- training requirements
- infrastructure requirements
- administration/management requirements

e) Communities identify, develop, and implement small-scale projects:
- trapper training
- on-the-land programs
- tourism
- dry fish
- etc.

3. The Mackenzie Delta Regional Council and community delegates direct the Regional Council staff to seek funding to work with the communities on the implementation of the Renewable Resources Development Plan.

The changes and modifications directed by the delegates from their intensive discussions on each project will be carefully taken into account in the implementation of the Development Plan. Some have already been taken into account in the re-drafting of this Final Report. Much greater discussion at the community level needs to take place in order to facilitate implementation.

Table 2.2

Community/Regional Priorities
for Two-Year Implementation
of Renewable Resources Development Plan

Year 1	Year 2
Hunting & Trapping	
#1 Supplies Warehouse	
#2 Trapper Training Program	
#3 On the Land Program	
#4 Aklavik Fur Shop	#5 Incentive Subsidy Program
Crafts	
#1 Supplies Warehouse	
#2 Hide Collection & Tanning	#3 Crafts Development Program
	#4 Training Young Crafts People
Fishing	
#1 Selling Smoked Dry Fish	#2 Selling Fish Eggs
	#3 Research
Tourism	
#1 Community Tourism Development	
Forestry	
#1 Inventory & Long-Range Development Plan	#2 Sawmill
	#3 Other Specific Forest Projects

From: Renewable Resources Development Plan Workshop, Mackenzie Delta Regional Council, Fort McPherson, March 18-20, 1986.

2.3 Staffing

The following table outlines the staffing requirements for the Development Plan. In most cases, these requirements are for the developmental stages of the project and therefore draw on the involvement of consultants from outside the Delta Region. But in some cases -- particularly in the crafts projects and in a number of the hunting and trapping projects -- local experts from the communities themselves will be the primary consultants for the development of the projects. In general, the Development Plan as it is outlined here is exactly that: a plan to bring all the identified sectors to the point where projects can be implemented as programs on a long-term basis. It is envisaged that the staff of the Mackenzie Delta Regional Council, in particular the Renewable Resources Director, the Economic Planner, and the Executive Director, will play a key facilitating role with the communities in co-ordinating the development of the projects and the research recommended in the Development Plan.

The role of the Renewable Resources Director will be central to the implementation of the Development Plan. That person must work closely with the communities on the identification of project priorities as well as on the design and implementation of those projects. There must be a two-way process of consultation between the communities and the Regional Council as projects and plans are developed, with the communities as the key decision-makers and implementors, and the Regional Council staff giving research, proposal, and program development support to community initiatives and working under community direction. The staffing requirements outlined here are based, therefore, on hiring local consultants or specialists whenever possible, not only to provide community involvement and direction but also in recognition of the considerable skills and expertise of local people in all renewable resource sectors. It will be a primary function of the Renewable Resources Director to co-ordinate the efforts of the communities' own experts with those of outside experts in the implementation of this Development Plan.

Table 2.3 STAFFING REQUIREMENTS

Project	Jobs Created	Duration	Projection: Staff Requirements for Long-Term Implementation
A. Fur Industry Hunting/Trapping			
Warehouse	warehouse construction: (app. 5/community)= 20 jobs	4 months	4 community warehouse managers or 4 secretary/managers of HTAs
Aklavik Fur Garment Shop	4 consultants:		1 full-time manager
	1 market	2 months	10 full-time workers
	1 manufacturing	3 months	
	1 ownership/ management	3 months	
	1 training	2 months	
	factory construction: (approx.) 10 jobs in Aklavik	6 months	
Incentive/ Subsidization Program for Hunters/Trappers	5 local consultants	4 months	1 trapper co-ordinator
On-the-Land Programs	2 consultants:		1 On-the-Land Program co-ordinator
	1 Gwich'in	10 months	
	1 local	10 months	
HTA Development Program	4 local consultants	4-6 months	4 community secretary/ managers
Trapper Training	1 local consultant	6 months	
Habitat Management & Conservation	4 local fur specialists	10 months	4 local fur specialists

(continued)

Table 2.3 STAFFING (cont'd.)

Project	Jobs Created	Duration	Projection: Staff Requirements for Long-Term Implementation
B. Crafts			
Community & Regional Organization for Delta Crafts Production & Marketing	2 consultants: 1 crafts business 1 local (hides)	 8 months 5 months	3 craft shop managers 1 hides program co-ordinator
Crafts Development Program for Producers	6 consultants: 5 local 1 national/ territorial	 13-21 months 13-21 months	5-6 local crafts teachers
Training Program for Young Crafts People	1 crafts development specialist 1 trainee	12 months 15 months	1 full-time regional co-ordinator or 4 part-time community co-ordinators
C. Tourism			
Tourism Development	1 tourism consultant	18 months	to be identified in Development of Community & Regional Tourism Opportunities
D. Fishing			
Commercial Production of Smoked/Dried Fish, Eggs/Roe Research Program	1 fish biologist/ business develop't specialist 4 local fishermen/ trainees	24 months 12 months	to be identified in Feasibility Studies & Research Program
E. Forestry			
Sawmills Investigation Forest Inventory & Manag't Plan Projects Devop't	1 forester 1 forestry business development specialist	6 months 8 months	to be identified by Project Feasibility Studies

2.4 Training

Two types of projects contained in the Development Plan involve training in one form or another:

1. Projects with training requirements: These projects incorporate a training component in their overall design, in order to accomplish other goals such as the development of a production or distribution facility, or research. In these projects, training is not the overall goal or purpose of the project but is a means to accomplish other ends. Training is therefore specific and fairly short-term in nature.

2. Training Projects: In these projects, the provision of training is the sole purpose of the project. The purpose of the training is to provide skills to renewable resource harvesters and crafts producers. The training therefore becomes part of the infrastructural support for hunting and trapping and crafts production, and is implemented on an on-going, long-term basis.

Training is needed, therefore, both in and of itself as an important means to develop local skills and talents in various renewable resource-based activities, and also for long-term development of facilities and provision of services to support those activities.

Whenever possible, training will be provided by local specialists who have the appropriate skills and teaching ability; for example in the crafts and trapper training projects. In some cases, however, it will be necessary to bring in specialists from outside the Delta who have expertise in a particular area; for example, in fur garment production, business management, or fish biology.

The following table outlines the training needs, trainees, and training personnel required, time and costs for both kinds of projects -- those projects with training requirements, and those that are explicitly training projects.

Table 2.4A PROJECTS WITH TRAINING COMPONENTS

Project	Training Needs	Trainees	Training Personnel	Training Time: Package Prep'n	Training Time: Implementation	Cost
1. Supplies Warehouse	On-job training for warehouse managers in retail small business management & operations	4	1 Business mgt. trainer consultant	8 months		$25,000
2. Aklavik Fur Shop	On-job training for fur garment workers	15	1 fur garment industry trainer (Geo.Brown Coll. and/or other)	3 months	6 months	$15,000 $127,500
3. HTA Develop't	On-job training for HTA Secretary/Managers	4	1 trainer	2 months	6 months	$6,000 $68,000
4. Fisheries Develop't Biological Research Program	On-job training for fishermen, to do fish research as part of development program	4	1 fish biologist	12 months		$160,000 *

* Entire fisheries biological research program.

Table 2.4B TRAINING PROJECTS

Project	Training Needs	Trainees	Training Personnel	Training Time: Package Prep'n	Training Time: Implementation	Cost
1. On-the-Land Programs	training young people in land-based skills	community young people (total no. unknown)	community elders; hunters, trappers; Gwich'in Cultural Centre personnel	14 months	ongoing	$55,000 --
2. Trapper Training Program	trapping techniques/ skills	existing trappers	Dept. Renewable Resources persn'l; community specialists	6 months	ongoing	$15,000 --
3. Crafts Develop't Program for Producers	crafts prod'n, marketing, and bus. management techniques	community craftspeople	community crafts specialists; outside specialists as needed (e.g., marketing expert)	6 months	18 months ongoing	$17,000 $55,000 * --
4. Training Program for Young Crafts Producers	crafts prod'n skills: school, bush camp, and apprenticeship programs	community young people	community elders; crafts specialists	15 months	ongoing	$72,000 --

* Pilot course.

2.5 Financial Requirements

The following table outlines the estimated financial requirements of and funding possibilities for the implementation, over a four-year period, of fifteen of the seventeen projects identified in the Renewable Resources Development Plan. The purpose of this table is to make easily identifiable the financial requirements, implementation phases, and possible funding sources for the Development Plan's projects over the next three to four years.

The eight projects identified for the first and second years are those which have been prioritized by the community participants and Board of the Mackenzie Delta Regional Council in the Renewable Resources Workshop held in Fort McPherson, March 18-20, 1986, as outlined above.

The remaining seven projects are targeted for implementation in the third and fourth years (and beyond, as necessary) and are grouped according to the interest expressed in them by the workshop participants.

Two projects, the Aklavik Fur Factory and the HTA (Hunters and Trappers Association) Development Program, do not appear in this table because they were not identified by the workshop participants as priorities. However, an initiative is already under way (through a feasibility study proposal) to look at the re-opening of the Aklavik Fur Factory. The Regional Council will continue to provide support to the Aklavik Band on this development during the next year, even though it has not been identified as a priority at the regional level. Similarly, the Regional Council will attempt to work towards the strengthening of the Hunters and Trappers Associations at both the community and regional levels, even though this has not been identified in a formal way as a project to be implemented. Much discussion on the importance of strong HTAs did take place at the workshop. In fact, the local Hunters and Trappers Association is envisaged as the key implementation agency at the community level for many of the proposed renewable resource projects, primarily in the hunting/trapping, fishing, and forestry sectors. In a general sense, none of the projects will be able to move forward without the expertise and participation of the hunters and trappers and the fishermen. In a specific organizational sense, some of the on-going project development will be based on the position of the HTA secretary-manager, who will be trained in basic administration, management, and organizing skills to co-ordinate and implement projects.

The following table is meant to be a rough guideline only, as the pace of initiation and implementation of projects in years two to four will depend greatly on the timing and success of projects starting in year one. We have attempted to strike a balance between realism and optimism in setting out this projected time frame, a balance which can most likely be achieved given optimum developmental conditions such as assured funding, sufficient local human resources, availability of qualified external expertise, etc. In reality, given anticipated blocks and lags in funding, the necessity for extensive community and regional consultation, etc., this process might easily be spread over a ten-year rather than a four-year period.

Table 2.5 FINANCIAL REQUIREMENTS & FUNDING SOURCES

Priority Projects	Development Period	Total Cost	Possible Funders
A. Start-up Year 1:			
1. Supplies Warehouse	27 months	$449,000	Special ARDA EDA
2. Trapper Training Program	6 months	$ 15,000	Dept. Renewable Resources
3. On-the-Land Programs	14 months	$ 55,000	Cultural Inclusion Program Dept. of Education
4. Hides Collection & Tanning *	16 months	$ 59,000	Crafts Division of Dept. Econ. Dev. & Tourism
5. Selling Smoked Dried Fish	6 months	$ 50,000	Dept. Econ. Dev. & Tourism
6. Community Tourism Development **	10 months	$ 43,000	Dept. Econ. Dev. & Tourism
Total cost of Year 1 projects over 2 years, 3 months		$671,000	
B. Start-up in Year 2:			
7. Incentive/Subsidy Program	8 months	$ 30,000	Dept. Renewable Resources Dept. Econ. Dev. & Tourism Land Settlement
8. Forest Inventory & Long-Range Development Plan	6 months	$ 21,000	Dept. Renewable Resources Dept. Econ. Dev. & Tourism Canadian Forestry Service
Total cost of Year 2 projects over 8 months:		$ 51,000	

* Community/Regional Crafts Organization
** Background document & identification of community resources & strategy.

(continued)

Table 2.5 FINANCIAL REQ'S & FUNDING SOURCES (cont'd.)

Priority Projects	Development Period	Total Cost	Possible Funders
Start-up Years 3-4:			
9. Crafts Development Program	26 months	$ 79,000	Crafts Division of Dept. Econ. Dev. & Tourism EDA
10. Crafts Youth Training Program	15 months	$ 72,000	Crafts Division of Dept. Econ. Dev. & Tourism EDA
11. Forestry Projects Development	8 months	$ 26,000	EDA
12. Fisheries Biological Research Program	12 months	$160,000	Dept. Renewable Resources Dept. Fisheries & Oceans
13. Whitefish Eggs Production	6 months	$ 50,000	Dept. Renewable Resources EDA
14. Regional Tourism Development	8 months	$ 33,000	Dept. Econ. Dev. & Tourism
15. Fur Habitat Management	20 months	$ 46,000*	Dept. Renewable Resources
Total cost of Year 3 projects over 2 years, 2 months:		$466,000*	

Commitments needed:

Year 1	$ 671,000
Year 2	$ 51,000
Years 3-4	$ 466,000
Total	$1,188,000

* Does not include time and costs of 5-year Experimental Program.

3. FUR INDUSTRY/HUNTING AND TRAPPING

Fur harvests and values have been characterized by fairly major increases and decreases over the course of the last ten years, from 1974/75 to 1984/85. The following analysis is based on information provided by the Government of the Northwest Territories, Department of Renewable Resources, Wildlife Services, both through their Information Report No. 1 and through phone communication with Shorty Tinling in their Yellowknife office (for updated statistics from 1977/80 to 1984/85). The purpose of this introduction is to provide an analysis of the fur industry in the Delta in the last ten years in terms of:

a) trappers' returns and trapper participation;
b) price and harvest volume per species; and
c) total commercial harvest value.

The terms "fur harvest" or "harvest" refer only to the commercial sale of fur; they do not include fur used for domestic or household purposes. The two categories together would more accurately account for the total fur harvest, but it is fur sold for money that is of interest here, and Government of Northwest Territories fur returns are the most accurate estimate of the total amounts sold.

These fur statistics are presented by community and by species for the Northwest Territories as a whole for the ten years from 1974/75 to 1984/85.

(a) Trappers' Returns and Trapper Participation

On a community-by-community basis, the picture varies quite considerably over the ten-year period. A ratio has been chosen to indicate increasing or decreasing returns to trappers, and should also indicate the extent to which people are engaged in the activity in order to make money. This ratio is:

$$\frac{\text{number of trappers whose fur return exceeds \$400-600}}{\text{total number of trappers}}$$

A low ratio would indicate that few trappers make much money from their sale of fur.

The GNWT tables from which these figures have been taken include a further breakdown of trapper income ranges ($400-600-1000; $2000-4000; $4000-8000; and $8000 and over). Before 1977/78, $400 was the GNWT benchmark figure for determining who was eligible to recieve the trappers incentive; after 1978 it was $600. Clearly, then, the group of trappers who make less than this figure is sometimes substantial.

These figures are compiled in Table 3.1: Fur Returns and Trapper Participation 1974/75 to 1984/85 for Aklavik, Arctic Red River, Fort McPherson, and Inuvik, NWT.

Aklavik. The ratio varies considerably, from a high of 67% in 1976/77 to a low of 24% in 1984/85. For many years, however, the ratio remained in the neighbourhood of 40%. The ratio for 1984/85 (24%) is substantially lower than it was a decade earlier (46% in 1974/75), indicating that fewer trappers made more than $400/$600 in 1984/85 than in 1974/75.

Arctic Red River. The range of ratios is similar to that of Aklavik, from a high of 65% in 1977/78 to a low of 29% in 1981/82. However, the ratio is higher in 1984/85 (46%) than it was a decade earlier (38% in 1974/75): more people made more than $400/$600 in 1984/85 than they did in 1974/75.

Fort McPherson. The range of variation is less: a high of 60% in 1976/77, and a low of 35% in 1984/85. The ratio is lower in 1984/85 (35%) than it was a decade earlier (43% in 1974/75), indicating that fewer trappers made more than $400/$600 in 1984/85 than in 1974/75.

Inuvik. The range of variation is low here as well, from a low of 29% in 1974/75 to a high of 56% two years later (1976/77). Except for the first year (1974/75), the ratio remained relatively constant, at around 48%. The 1984/85 ratio (48%) is substantially higher than the ratio for 1974/75 (29%): more people made more than $400/$600 in 1984/85 than in 1974/75.

The key finding of these figures is that there are still significant numbers of people who make under $400-600. A breakdown of income ranges over $400-600 shows that very few people make more than $8,000 per year from trapping; most are concentrated in the $400/$600-$4000 per year income range.

In Aklavik, Fort McPherson, and Inuvik, the absolute number of trappers selling their fur commercially was higher in 1984/85 than in 1974/75; the figures for Arctic Red River have remained virtually stable. However, in each community there have been major shifts, up and down, both in total number of trappers and in the number of trappers topping the benchmark of $400-600. It can be concluded from this that participation in (and presumably reliance upon the income from) trapping is both flexible and fluid.

Table 3.1

FUR RETURNS AND TRAPPER PARTICIPATION 1974-75 TO 1984-85
FOR AKLAVIK, ARCTIC RED RIVER, FORT McPHERSON AND INUVIK N.W.T.

1974-75	AKLAVIK	ARCTIC RED RIVER	FORT MCPHERSON	INUVIK
TOTAL FUR DOLLARS	78816.70 [157633.40]	13178.81 [26357.62]	39416.64 [78833.28]	53188.87 [106377.74]
TOTAL NO. TRAPPERS	104	21	80	111
NO.OF TRAPPERS OVER $400.00	48	8	34	32
1976-77				
TOTAL FUR DOLLARS	228996.75 [373264.70]	31367.70 [51129.35]	122285.02 [199324.58]	159886.84 [260615.54]
TOTAL NO. TRAPPERS	153	30	127	127
NO.OF TRAPPERS OVER $400.00	103	17	76	71
1977-78				
TOTAL FUR DOLLARS	217036.64 [334236.42]	51958.20 [80015.63]	167048.05 [257253.99]	220946.49 [340257.59]
TOTAL NO. TRAPPERS	169	26	130	141
NO. OF TRAPPERS OVER $600.00	81	17	65	75

Table 3.1

1978-79	AKLAVIK	ARCTIC RED RIVER	FORT McPHERSON	INUVIK
TOTAL FUR DOLLARS	232934.00 [328436.94]	66190.00 [93327.90]	275266.00 [388125.06]	325684.00 [459214.44]
TOTAL NO. TRAPPERS	166	31	138	150
NO. OF TRAPPERS OVER $600.00	64	19	78	70
1979-80				
TOTAL FUR DOLLARS	83542.70 [108605.51]	66661.65 [86660.15]	187930.22 [244309.28]	179463.44 [233304.47]
TOTAL NO. TRAPPERS	117	31	151	148
NO. OF TRAPPERS OVER $600.00	38	18	74	68
1980-81				
TOTAL FUR DOLLARS	196954.00 [232409.26]	71030.00 [83815.40]	150873.00 [178030.14]	257693.00 [304077.74]
TOTAL NO. TRAPPERS	166	40	145	148
NO. OF TRAPPERS OVER $600.00	66	17	69	73

Table 3.1

1981-82	AKLAVIK	ARCTIC RED RIVER	FORT McPHERSON	INUVIK
TOTAL FUR DOLLARS	209442.74 [209442.74]	56264.55 [56264.55]	135257.60 [135257.60]	114747.26 [114747.26]
TOTAL NO. TRAPPERS	160	31	135	103
NO. OF TRAPPERS OVER $600.00	77	9	60	45
1982-83				
TOTAL FUR DOLLARS	148391.85 [140972.25]	26878.00 [25534.10]	139066.55 [132113.22]	239407.94 [227437.54]
TOTAL NO. TRAPPERS	158	15	153	122
NO. OF TRAPPERS OVER $600.00	66	8	56	59
1983-84				
TOTAL FUR DOLLARS	161467.39 [142091.30]	41320.90 [36362.39]	161275.49 [141922.43]	215878.74 [189990.89]
TOTAL NO. TRAPPERS	157	23	134	145
NO. OF TRAPPERS OVER $600.00	72	8	60	64

Table 3.1

1984-85	AKLAVIK	ARCTIC RED RIVER	FORT McPHERSON	INUVIK
TOTAL FUR DOLLARS	103929.50 [86261.49]	24287.05 [20158.25]	115806.75 [96119.60]	267737.54 [222222.15]
TOTAL NO. TRAPPERS	134	22	130	207
NO. OF TRAPPERS OVER $600.00	32	10	46	100

*FIGURES IN BRACKETS ARE THOSE FOR TOTAL FUR DOLLARS ADJUSTED FOR INFLATION AND PUT INTO CONSTANT DOLLAR TERMS.

INFORMATION PROVIDED BY GNWT WILDLIFE SERVICE, YELLOWKNIFE, 1985.

(b) Total Commercial Harvest Value

When absolute figures are examined without adjustment for inflation, the total value of the fur returns to the trapper has increased since 1974/75, reaching a peak in 1978/79 (the year of highest prices ever recorded to trappers for certain species of fur), and then diminishing somewhat in the following years but maintaining in all communities, by 1984/85, levels well (40%) above 1974/75 levels.

However, when these figures are adjusted for inflation and translated into 1981 constant dollars for comparison purposes, a quite different picture emerges.

Table 3.1 shows total fur dollars earned in each of the communities from 1974/75 to 1984/85. Of the two figures shown, the upper figure indicates total fur dollars in each year; the lower figure (in square brackets) indicates the total fur dollars translated into 1981 constant dollars and thus adjusted for inflation.

Two factors are at work. First, the fluctuations in total fur returns in the five-year period are greater because of the inflation adjustment. Second, a dollar worth $1.00 in 1981 would have been worth $2.00 in 1974 but only $0.83 in 1984. Thus, fur returns have in fact decreased since the peak years of 1978/79 in absolute terms, because of price decreases for most species; and returns have been further decreased by inflation since then.

In Aklavik and Arctic Red River, for instance, the absolute increases in unadjusted prices and harvests over the ten-year period have been offset by inflation: total fur dollars in both communities have actually decreased since 1974/75, by 45% in Aklavik and by 24% in Arctic Red River. In Fort McPherson and Inuvik, conversely, total fur dollars show increases over 1974/75 levels of 22% and 109% respectively when adjusted for inflation.

It would be incorrect, however, to assume that this indicates an overall downturn in trapping in Aklavik and Arctic Red River. In the preceding year (1983/84) the gains over the 1974/75 fur returns were considerable in three of the four communities: 38% in Arctic Red River, 80% in Fort McPherson, and 79% in Inuvik; Aklavik was down 10%. Because of major fluctuations in participation and harvest levels, it is very important when drawing conclusions about harvest levels to examine trapping activity indicators over the long term, rather than the short term -- as this example demonstrates.

What can be concluded is that, in Aklavik, the returns have decreased since 1981/82 after a period of fairly constant levels (1976/77 to 1978/79), despite an overall increase of trapper participation in sales. In Arctic Red River the returns have been decreasing since 1981/82, after maintaining a fairly constant level in the previous five years (1976/77 to 1981/82). It should also be noted that in Arctic Red River trapper participation in fur sales has doubled during the period, and then fallen off once more.

Fort McPherson displays quite marked fluctuations in returns, from a low in 1974/75 to a peak in 1978/79, followed by a steady falling-off from 1979/80 to the present, despite an overall increase of trapper participation in fur sales.

Inuvik also displays strong fluctuations in returns: an upward climb peaked in 1978/79 and was followed by a generally downward trend from 1979/80 to 1983/84 and an upturn in the last year (1984/85).

The key question is whether these fluctuations are due to changes in price, in harvest levels, or to some combination of the two. Unfortunately, until Delta-specific species data on community prices and harvest levels can be gathered and analyzed, this question cannot be answered. In the meantime, we can gain some understanding of the relation between price and changes in harvest volume by examining the breakdown of these figures over this ten-year period for each species commonly found in the Delta.

(c) Price and Harvest Volume per Species

The breakdown of the commercial fur harvest, both by number of pelts per species and by price per species, will draw out the relationship between price and harvest volume over the ten-year period from 1974/75 to 1984/85, and should allow us to conclude whether price is the key factor in determining harvest levels.

Table 3.2, "Volume and Prices of Fur Returns per Species, Northwest Territories, 1974/75 to 1984/85, consolidates the information on harvest and prices. Figures in brackets, drawn from Table 3.1, give values translated into 1981 constant dollars, providing a comparison adjusted for inflation. The figures for "number of pelts sold" are for the whole of the Northwest Territories, not specifically for Delta communities; however, their trend should also be applicable to the Delta communities, and the average prices will apply throughout the

Northwest Territories. It should be remembered that 1978/79 was the record year for high prices for many species of fur.

Beaver. Volume of beaver sold throughout the Northwest Territories has fluctuated quite substantially in the ten-year period, with a high of 8,694 pelts in 1979/80 to a consistently low level in the 2,500 range from 1981/82 to 1984/85. Beaver prices have also fluctuated, with the year of highest prices coinciding with the year of greatest production. The period of low prices (1981/82 to 1984/85) coincides with the period of low production, leading one to conclude that harvest volume may follow price trends for this species.

Cross Fox. Cross fox harvest has clearly followed an upward trend; the 1984/85 volume increased 150% over 1974/75 levels. The year of highest production, 1978/79, also was the year of highest price ($211.44, adjusted for inflation). However, falling prices in every year since then have not led to decreases in production; rather, production has risen overall.

Red Fox. Volume of red fox production has risen substantially -- by about 106% over the ten-year period -- maintaining an average level of 1,900 pelts in the last six years. The initial increase and stable level of harvest were maintained in the face of a price decrease of 32% since 1974/75, and of 71% from the peak year of 1978/79.

Silver Fox. Silver fox production in 1984/85 is 85% above 1974/75, again despite price decreases of 42% over that period, and of 72% from the peak year of 1978/79.

Lynx. The lynx harvest has shifted quite dramatically over the ten years, reaching a low of 581 in 1975/76 and a high of 5,980 in 1981/82; the 1,005 harvest in 1984/85 is representative of a downward trend since the peak year. However, these lower production levels do not coincide with low prices. The past year (1984/85) saw the highest prices for lynx on record, but production was not correspondingly high. These statistics thus suggest that factors other than price influence harvest levels; as trappers and biologist know, of course, biological cycles, operating in conjunction with fluctuations in the rabbit/hare population, are a major determining factor in lynx productivity and therefore in harvest.

Marten. Marten harvest appears fairly sensitive to price; fairly small increases in price seem to draw out a marked increase in harvest. Between 1974/75 and 1979/80 stable and increasing prices are reflected in a steadily increasing harvest. There seems then to have been a time lag of about a year before a price decrease led to a corresponding decrease in

harvest. As prices continued to fall, production did also. Prices rose again, but seem to have taken a year or so to draw out production increases. 1984/85 shows a 198% increase in harvest over 1974/75, at a price 41% above the 1974/1975 price.

Mink. For mink, as for marten, prices and harvests seem to rise together; small price increases seem to draw out major harvest increases; and price changes are reflected in harvest levels after a one-year time lag. However, although prices in 1984/85 are 19% below the 1974/75 level, harvest has increased by 129% in that period.

Muskrat. Muskrat production has been extremely variable over the ten-year period, ranging from a low of 70,615 (in 1979/80, after a year of record-setting prices) to a high of 276,518 (1976/77), with other peaks and valleys during the period. High or rising prices did not always call forth production increases. Even at prices substantially below those of 1974/75, production was maintained at the same level from 1981/82 to 1983/84. In the following year (1984/85), however, both prices and harvests were well below 1974/75 levels. For muskrat production in the Mackenzie Delta, further historical information is available from Peter Usher's statistics in Historical Statistics Approximating Fur, Fish and Game Harvest in the Mackenzie Valley, Northwest Territories, 1915-1976. For the Delta (including Aklavik and Inuvik), Fort McPherson, and Arctic Red River, the total muskrat harvest ranged from 63,023 in 1915/16 to 517,193 in 1930/31 and to a peak of 1,169,848 in 1940/41; it fell to 95,460 in 1975/76, at which point it comprised just over half the production of the whole Territory. When looked at in this historical context, there is no question that Delta production has fallen off drastically, to a level in 1975/76 that had not been seen since before 1920/21. It should be emphasized that this trend is not matched for other species in all cases.

Wolf. Wolf harvests over the ten-year period are characterized by a number of years of stable levels interspersed with a year of major leap upward or down. Prices have also been fairly constant around $200, except for the record year of 1978/79 when they skyrocketed to $300. This would seem to indicate that price does have a major impact on harvest, especially when it is noted that in this ten-year period the year of highest price (1978/79) is also the year of second-highest production. Overall, though prices have increased by 59% since 1974/75, production has decreased by 49%, suggesting that a longer-term perspective may be preferable in this case to the comparison of any one year with another.

Wolverine. Wolverine harvests maintain a constant level in the ten-year period. Peak harvests have been achieved in the last three years; the 1984/85 harvest level is 21% higher than that of 1974/75. With the exception of the record price set in 1978/79, prices have remained stable around $200, although the 1984/85 price is 22% higher than that of 1974/75.

In summary, then, price and harvest levels may be grouped under the following headings, indicating general trends over the period.

1974/75 to 1984/85 General Trends by Species

Price Trend	Harvest Trend	Species
down	down	Beaver
up	up	Marten, Cross Fox*
stable	stable	Wolf, Wolverine
up	down	Lynx
down	up	Red Fox, Silver Fox, Mink, Cross Fox*
difficult to generalize:		Muskrat

* appears in two categories

We may draw a number of conclusions from this picture.

1. For some species, price appears to have an impact on harvest levels; these species include Beaver, Marten, Cross Fox, and, to a certain extent, Wolf and Wolverine.

2. For another group -- Lynx, Red Fox, Silver Fox, Mink, and Cross Fox -- price does not appear to be the determining factor in harvest level. Cross Fox in particular appears to fall quite clearly into different trend categories at different times.

3. It is difficult to generalize trends in the relation of Muskrat production to price. This could mean that, like Cross Fox, it moves in both directions, but that the trends are less easily identifiable. From knowledge gained at the community level in the Mackenzie Delta, which has the highest level of muskrat production in the Northwest Territories, we might speculate that non-price factors such as cultural preferences for spring muskrat hunting and the availability of cash income for outfitting are other factors influencing production.

VOLUME AND PRICES OF FUR RETURNS PER SPECIES, N.W.T. 1974-75 TO 1984-85

	1974-75		1975-76		1976-77		1977-78		1978-79		1979-80		1980-81		1981-82		1982-83		1983-84		1984-85		
	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	NO. OF PELTS	AVERAGE VALUE	
BEAVER	5617	13.48 [26.96]	2550	14.65 [26.22]	5790	14.78 [24.09]	3761	15.94 [24.55]	6278	23.98 [33.78]	8694	31.80 [41.34]	5227	24.89 [29.37]	2315	18.74 [18.74]	2714	15.16 [14.40]	2392	16.42 [14.45]	2546	18.23 [15.13]	BEAVER
CROSS FOX	462	38.76 [77.52]	404	68.49 [122.60]	701	81.94 [133.56]	559	88.00 [135.52]	1465	149.96 [211.44]	952	96.09 [124.92]	805	79.00 [93.31]	1055	90.00 [90.00]	724	82.46 [78.34]	860	92.92 [81.77]	1135	91.52 [75.96]	CROSS FOX
RED FOX	1023	28.61 [57.22]	608	47.90 [85.74]	1659	55.31 [90.16]	1681	65.67 [101.13]	2746	95.12 [134.12]	2472	61.87 [80.43]	1888	62.59 [73.86]	1825	65.41 [65.41]	1487	51.67 [49.09]	1810	52.99 [46.63]	2142	47.16 [39.14]	RED FOX
SILVER FOX	106	36.18 [72.36]	167	32.54 [58.25]	453	46.00 [74.98]	102	60.86 [93.72]	222	105.67 [149.00]	226	58.00 [76.44]	170	60.41 [71.28]	173	57.76 [57.76]	115	53.98 [51.28]	150	47.91 [42.16]	195	50.20 [41.67]	SILVER FOX
LYNX	1243	80.42 [160.84]	581	163.07 [291.90]	1702	206.39 [336.42]	3778	223.01 [343.44]	4539	305.88 [431.29]	3160	294.48 [317.82]	2705	294.60 [288.63]	5980	111.51 [111.51]	2290	281.92 [267.82]	1300	316.07 [278.14]	1005	524.65 [435.46]	LYNX
MARTEN	7975	16.69 [33.38]	7711	16.83 [30.13]	12306	24.90 [39.77]	10518	25.42 [39.15]	23309	34.74 [51.80]	26342	39.72 [51.64]	20977	35.01 [41.31]	25992	40.46 [40.46]	17506	43.98 [41.78]	13573	53.24 [46.85]	23783	36.72 [47.68]	MARTEN
MINK	1379	17.17 [34.34]	2488	21.54 [38.56]	5619	24.45 [39.85]	6737	21.66 [33.36]	8610	36.07 [50.86]	5842	39.57 [51.44]	4894	35.35 [41.71]	3870	36.43 [36.43]	2760	22.98 [21.83]	2449	31.44 [27.67]	3853	33.47 [27.78]	MINK
MUSKRAT	138116	1.90 [3.80]	183726	3.69 [6.61]	276518	3.07 [5.00]	184086	3.47 [5.34]	209836	4.58 [6.46]	70615	5.25 [6.83]	125455	4.66 [5.50]	133483	2.64 [2.64]	131109	2.60 [2.47]	147144	2.77 [2.44]	96334	2.23 [1.85]	MUSKRAT
WOLF	1445	62.72 [125.44]	662	100.97 [195.01]	609	138.66 [226.02]	636	137.64 [211.97]	1326	212.87 [300.15]	794	190.66 [247.86]	486	156.27 [184.40]	443	191.46 [191.46]	523	210.02 [199.52]	694	233.53 [205.51]	741	240.25 [199.41]	WOLF
WOLVERINE	107	73.88 [147.76]	86	90.80 [176.85]	68	136.86 [253.68]	80	149.40 [230.08]	78	220.67 [311.14]	110	175.99 [228.79]	60	201.73 [238.04]	88	191.51 [191.51]	137	208.52 [198.69]	107	226.93 [199.70]	129	216.70 [179.93]	WOLVERINE

THE FIGURES FOR 1974-75 TO 1978-79 ARE ADAPTED FROM INFORMATION REPORT NO.1: NORTHWEST TERRITORIES FUR PRODUCTION 1957-58 TO 1978-79, R.TINLEY, N.W.T. WILDLIFE SERVICE, YELLOWKNIFE, N.W.T.1982. THE FIGURES FOR 1979-80 TO 1984-85 WERE GIVEN BY PHONE DECEMBER 1985 AND HAVE BEEN TRANSLATED INTO 1981 DOLLAR TERMS.
ALL VALUES HAVE BEEN TRANSLATED INTO 1981 DOLLAR VALUES IN ORDER TO PROVIDE A BASIS FOR PRICE COMPARISONS OVER THE TEN YEAR PERIOD: ADJUSTED FOR INFLATION, THESE VALUES APPEAR IN BRACKETS UNDER THE YEARLY VALUES.

Table 3.2

When the general price trends are analyzed over the ten-year period, the following emerges:

1. Prices have declined steadily for Beaver, Cross Fox, Red Fox, Silver Fox, and Mink.

2. Prices have increased, overall, for Marten.

3. Prices have risen, fallen, and then risen again for Lynx.

4. Prices have risen and then fallen for Muskrat, Wolf, and Wolverine.

In virtually every case, regardless of whether 1984/85 prices exceeded or fell below 1974/75, the general price trend is a consistent rise to a peak in 1978/79 and a decline from those levels thereafter.

Conclusions

A number of key conclusions may be drawn from these statistics and their analysis.

1. The trapping economy in the Delta is characterized by great flexibility and fluidity over the long term, especially when participation and revenues are analyzed. This characteristic reinforces the need for a long-term perspective as the framework from within which conclusions about trends are drawn: ten years seems to be the shortest useful time frame. A five-year overview would yield quite different conclusions. To understand the choices and options open to the trapper and trapping units, which determine their participation in the industry, it is also important to know the local and regional socio-economic context.

2. The statistics for total number of trappers making commercial fur sales show that participation in the fur trade has increased in Mackenzie Delta communities from 1974/75 to 1984/85 -- an important finding which is quite contrary to conventional thinking in the Delta and elsewhere, which holds that hardly anyone traps any more. A comparison of the number of trappers in each community with community population shows, furthermore, that there is still roughly one trapper for each household in Aklavik, Fort McPherson, and Arctic Red River

(assuming that each household consists of 8-10 people). Inuvik has a substantial government and service sector base, but even there it seems that one-third to one-half the households count a trapper among their members.

3. Returns to trappers are clearly very low. In Aklavik and Arctic Red River fur returns are down over the ten-year period (when adjusted for inflation); in Fort McPherson and Inuvik they are up. In all communities, however, the number of trappers making fur sales has increased over the ten-year period. The proportion whose fur incomes have exceeded the benchmark figure ($400-600) has remained between 43% and 49% over the period, indicating that somewhat more than half the trappers who make fur sales get returns below $400-600.

4. The distribution of fur returns has not been addressed in this study, but is important to an understanding of the industry. For example, if the number of trappers in Aklavik and Arctic Red River has increased over the period, but their total returns are down, is every trapper is making less money, or are some making substantially less and some maintaining their previous levels? Conversely, if the number of trappers in Fort McPherson and Inuvik who sell their fur has increased over the period, and their returns have also increased over the period, are all trappers making somewhat more, or are some trappers making a great deal more and others maintaining previous levels? To answer these questions about distribution, individual trapper returns and employment histories would have to be analyzed; the topic could in itself warrant a separate study.

5. Some tentative conclusions have been drawn about the relationship between price and harvest volume per species over the ten-year period. It appears that for some species -- Beaver, Marten, Wolf, and Wolverine -- prices have a definite impact on harvest levels; but price does not determine harvest levels for Lynx, Red Fox, and Silver Fox. Cross Fox seems to fall clearly into one or another category at different times; trends are hard to discern or analyze for Muskrat. Prices have been in decline over the period for almost all species; Marten prices have increased overall, and prices for Lynx are currently at a very high level.

6. An important focus of study, clearly, is: What factors, other than price, influence harvest levels? Peter Usher has identified a number of such factors, in addition to animal availability/biological productivity:

- community and regional social and economic conditions;

- the technology employed in hunting and trapping;

- the social and cultural values attached to the activity in general and to the pursuit of certain species in particular;

- strategies used by individuals faced with a variety of resources whose availability changes over time.

On the basis of conversations with Wildlife Service personnel and local individuals involved in community services, as well as of personal observation, I would suggest a few other factors, some of which may be viewed as an elaboration of Usher's first point:

- availability and attractiveness of other sources of employment, both in the community and in the region;

- information, assistance, and financial support from community Wildlife Officers;

- financial assistance from government transfer programs, facilitated by community Social Services personnel.

7. The analysis and discussion of the relationship between price and harvest levels suggests that, for some species at least, there may be a "break-even point": a price below which trappers will not pursue the species (presumably because they cannot cover their operating costs, let alone make a profit). In the spring of 1985, when prices were very low, some trappers in the Delta indicated they could not afford to hunt muskrat because they could not even cover their groceries and gas costs at the current price level for muskrat. Trappers may well have an intuitive sense of such a break-even point for other species as well. More work is required before conclusions can be reached on this issue.

8. Finally, the analysis of these statistics reinforces information from community interviews with hunters and trappers. A clear picture emerges. Trapper participation is up overall; prices and returns are down, for most species, over the period; and production costs are increasing. Clearly, then, people in Mackenzie Delta communities are not trapping only to make money; a range of other socio-cultural factors must account for continuing participation in the fur industry, despite low and in some cases decreasing economic returns.

Despite an apparent increase in trapping participation, there is cause for concern about the future prospects and

health of the industry:

1. With clear signals of economic ill-health in the fur industry itself (e.g., low and decreasing returns, especially for species such as beaver, mink, and muskrat that are the "bread and butter" of Delta trappers; and increasing costs of production), how long will it be before trappers and their families are forced to leave the industry because they cannot afford to participate in it?

2. If greater oil and gas development takes place in the next ten to twenty years, offering alternative employment, young trappers who have the skills or can be trained to participate in the fur industry may abandon it in favour of higher wages and economic rewards elsewhere.

3. Further, with increasing community settlement, and with the impact of the educational system and competing southern industrialized, consumer-oriented values, younger people may no longer be trained to survive and live in the bush, or have any interest in knowing how to do so. Experience elsewhere suggests that these skills and attitudes can die off within as short a span as two generations (30-40 years).

Nevertheless, as stated above, the Delta people are clearly trapping not exclusively for economic gain but as part of a preferred lifestyle. The questionnaire responses of hunters and trappers themselves indicate that money, or fur prices, is not the motivating factor. "In fact, there is a clear perception that other sources of income are used to support trapping activities..." (Appendix 8.4, Fee-Yee Report, p. 8). From historical research (compiled in Chart 3.1), it is also clear that this is not a recent phenomenon; Delta harvesters have continued to hunt and trap although average outfit costs have outstripped trapping income for at least two decades. Finally, it is clear from the foregoing statistical analysis that trapper participation has increased in the Delta despite an overall decrease in fur prices and substantial increases in costs of production. The conclusion to be drawn is, again, that trapping and hunting constitute a lifestyle choice not propelled by economic gain.

Hunting and trapping tend to be regarded as distinct activities. The survey questions, in fact, were initially designed to distinguish the time and effort spent on the two activities, and our stated purpose was to focus on trapping as a social and economic activity. As Fee-Yee noted in their analysis, hunting can be carried on year-round, regardless of other economic activities, because it requires the investment of short, concentrated amounts of time, while trapping

requires a fairly extensive commitment of time and of financial resources.

We might further speculate, also on the basis of the Fee-Yee analysis, that, given this practical distinction between the two activities, participation in the wage economy brings in its wake an increasing specialization in one activity or the other. Those (predominantly younger) men who participate in the wage economy for a substantial portion of the year must concentrate their bush activities on hunting at particular times of the year, if they go into the bush at all, rather than on trapping. Thus, while they might have the larger capital investment for trapping, they might be unable to make the time investment required; being able, rather, to make a concentrated effort at certain times of year, a pattern suitable for hunting. Further work with current data and additional interviewing would be required to confirm this speculation.

Several mitigating factors should also be taken into account, such as the availability and nature of seasonal and full-time wage employment in the region; personal preferences; etc. A trend towards specialization would have wide-ranging consequences and implications in many policy and planning areas -- for example, in wildlife management, economic support programs, and bush training for young people.

However, the distinction between trapping and hunting is not easy to maintain. In everyday practice in the bush it is virtually impossible to separate the two activities. Hunters and trappers interviewed found it very difficult to isolate the time spent on each activity. First, such activities are often carried on simultaneously when hunters and trappers are out on the land; second, conditions vary so greatly from year to year and from season to season that a hunter/trapper must be prepared to be very flexible in the allocation of time and effort. The distinction between hunting and trapping is in many ways an artificial one -- a social scientist's category that does not at all reflect the integrated reality of the people who live on the land. As one older trapper noted in his interview, if he comes across fresh moose tracks when he's out trapping, he'll certainly drop everything else and go after the moose (thus abruptly engaging in a hunting activity); and vice versa.

Trapping and hunting are connected in another fundamental way: the food and other products from the hunt are used to support the trapping activity itself. As noted in the survey and research analyses, the sale of furs alone would seldom permit a trapper to continue going out on the land; 82% of

survey respondents indicated they could not continue to trap on trapping income alone. Hunting supports trapping in a crucial way, by providing subsistence food for the trapper and his family or partner while they are on the land. (Some species, such as beaver and muskrat, which are trapped for their fur, also provide meat; caribou and moose are hunted while the trapper is on the trapline.) Not only is this food nutritionally superior to store-bought food, but it decreases the cash outflow from the trapping unit and makes more money available for the purchase of other productive bush equipment and supplies.

Trapping and hunting are closely related; similarly, trapping/hunting and the wage economy are also intimately related. As noted above, 82% of survey respondents indicated that they could not continue to trap on their trapping income alone; conversely, only 37% indicated that they get the money to trap from trapping itself. Asked where they got the money to trap, 43% to 100% of the respondents (the proportion varying by community) stated that it came from their own work income and/or from income from another family member. This indicates that the trapping activity is heavily dependent on outside sources of wage income.

An in-depth examination of individual survey responses, together with a knowledge of the communities and regional employment conditions, illustrates how difficult it is to make generalizations from year to year, or from trapper to trapper, about this dependence on outside sources of wage income. For any given individual trapper and trapping unit there are many variations over time according to a number of factors, including alternative employment possibilities in the community and/or the region, fur price levels, availability of employment for other family members, educational goals of school-age children, socio-cultural and individual preferences, etc. A high reliance on wage income in one year might not persist in the next year if changes in fur prices, in the productivity of the biological harvest, in the efficiency of equipment, or in capital and operating costs benefit the trapper economically. But with little control over these factors, and with prevalent uncertainty about their trends, such changes may also work against the trapper. It is difficult to predict what will happen in a specific year.

There is another aspect of hunting and trapping that is essential to the analysis. Trapping and hunting are often carried out, not by an individual working on his or her own, but by a unit of production, most often a family or extended family contributing an important labour component to the trapping endeavour. This labour contribution by family

members or a trapping partner was reflected in the responses to a number of the survey questions. Women's work and skills frequently add significantly to the success and even the viability of the trapping unit. Women are involved directly in the work of trapping itself, through skinning and preparing the pelts for sale. They are also involved indirectly, through a range of activities in the trapping camp such as food preparation and cooking, hauling wood and water, taking care of the children, etc. Women's work in processing fur and hides to finished items such as slippers, mukluks, mitts, and parkas conserves household income that would otherwise be expended on the purchase of store-bought goods.

Responses to the question "Who goes trapping with you?" show that trapping is still overwhelmingly a family activity: 67-82% of the respondents indicated that they go with their families.

A series of questions was asked about domestic use of pelts trapped. Although the responses from the hunters and trappers were low (perhaps indicating that this is considered the women's domain), wives and mothers are predominantly (83%) involved in using domestic fur for the production of bush clothing such as slippers, mukluks, mitts, etc.

Between 54% and 75% of the respondents (the proportion varying by community) indicated that they kept some furs for personal use. The percentage of furs kept for this purpose was estimated by respondents as 8-10%, a significant amount, indicating that women's domestic production of finished goods for household use is still important in the Mackenzie Delta communities. These results may be juxtaposed with those from the Crafts interviews: in the region as a whole, 55% of crafts producers indicated that they sew primarily for family use, with sale being a secondary purpose. These figures clearly illustrate the important role that women play in household production in general, and in support of the trapping activity in particular.

Successful support for hunting and trapping must obviously acknowledge women's role and contributions in the hunting and trapping endeavor. Such support must therefore integrate women's training and the development of crafts and other bush-related activities, without which the hunting and trapping activities would be radically altered. Accordingly, the Development Plan for the fur industry should be read in conjunction with the proposals for the development of the crafts sector.

These conclusions have implications for policy and planning for the renewable resource sector. Policies must be designed that stabilize and support the renewable resource sector so that it can provide a viable future for those who wish to pursue it. In doing so, these policies must recognize and support the subsistence and household unit of production as the foundation of the economy. It is hoped that commercialization of the renewable resource sector will take place within and through the household unit of production, not by bringing about its destruction. Proposals to support the sector should be constantly evaluated in terms of their impact on the subsistence sector and the household unit of production.

Given that people are on the land and want to continue hunting and trapping as a matter of choice and preference, the Delta Dene and Metis who form the Mackenzie Delta Regional Council want these traditional activities to be supported and enhanced. The economy developed in the Delta region must therefore recognize the importance of, and build upon, the hunting and trapping activity, and attempt to provide employment and income possibilities in other renewable resource sectors, allowing those who live on the land to continue to do so, and allowing younger people to have a viable future in these sectors. The leadership of the Mackenzie Delta Regional Council also recognizes the existence and importance to the Delta economy of the non-renewable resource economy, in particular, the oil and gas and related industries, and acknowledges that it brings with it a way of life that has many benefits and equally as many negative impacts. Its relationship with the renewable resource economy and with community life is very complex and often troubling. People acknowledge, hwever, that the non-renewable resource economy is here to stay, at least for the foreseeable future. At the same time, they maintain that a mixed economy must be developed that allows the renewable resource sectors to co-exist. One of the goals of this Development Plan is to strengthen the renewable resource economy in the face of the destructive impacts of the non-renewable resource sector and its inherent instability. The projects, programs and infrastructural development proposed in the following chapters are designed to achieve this end.

3.1 Supplies Warehouse

As noted in the preceding analysis, costs of production have increased substantially in the past ten-twenty years, and revenues from fur production have decreased. It is becoming more difficult for trappers to find the money to outfit themselves for the bush. Many trappers also identified an inadequate supply of bush equipment as a key problem. Fifty-one percent of the trappers surveyed identified "getting supplies" -- getting a consistent supply, at a reasonable cost -- as a problem.

To address these problems of high production costs and limited availability of supplies, a proposal has been made for a supplies warehouse that would, through bulk purchasing, provide a wider range of equipment at lower cost. This proposal received endorsement from an August 1985 meeting of the executive of the Mackenzie Delta Regional Council with presidents and representatives of the four community Hunters and Trappers Associations. Consultation with HTA members took place during the fall of 1985 at some HTA general meetings and house meetings, at which the proposal was received with interest and support for follow-up. Participants in the March 18-20 1986 Renewable Resources Workshop in Fort McPherson identified the establishment of a supplies warehouse as the first priority for supporting hunters and trappers at the community level.

The short-term objectives of this warehouse would be:

1. To benefit local hunters and trappers through decreasing equipment costs achieved by bulk purchasing.

2. To provide a consistent supply of equipment not currently available in the Delta communities when needed.

3. To give local hunters and trappers the opportunity to work together running their own enterprise for their own profit -- i.e., small business management experience.

The long-term objectives of this warehouse would be:

1. To provide long-range support for the trapping and hunting economy in the Delta.

2. To build an economic organization under the control and for the benefit of local trappers and hunters.

3. To provide an effective economic organization for the trappers so that they may eventually take a more active role in marketing locally produced fur, both nationally and internationally.

A number of organizational options can be considered for the warehouse, offering different answers to the questions: Who would own the warehouse? How would the warehouse be run? and Where would the money come from?

Ownership Options

1. HTAs

(a) a Delta Regional HTA

Advantages:

* Could pool money, resources, and expertise on a regional level and create greater savings by buying in greater volume. Benefits would be largely economic.

* If located at a central distribution point, such as Inuvik, could take advantage of existing transportation systems.

Disadvantages:

* No such regional HTA organization exists now, and its creation might be beyond the organizational capacity of a body formed for that purpose.

* A decentralized distribution system is essential, so that benefits can be passed on to trappers in their own home communities.

(b) Community HTAs.

Start as grass-roots efforts in those communities in which local trappers are ready and willing to work together.

Advantages:

* Start very small, at grass-roots level; would strengthen local HTAs; linking on a regional basis could take place after local organizations are built.

* Gives local HTAs choice about how they would organize and manage their own affairs, and allows them to set their own pace for development.

Disadvantages:

* No benefits of volume, because each community would work out its own relationship with suppliers.

2. Community/Regional Economic Development Corporation (EDC)

(a) Band or Metis Local Community EDC

Advantages:

* Could draw on existing financial and organizational resources of community corporations.

* Would be linked to, and gain benefits from, other community economic endeavours.

Disadvantages:

* Would not be under the sole control of trappers, or accountable to them.

* In the case of Inuvik and Aklavik, non-Dene and/or non-Metis trappers would presumably not be involved, which would weaken the base of the organization in the community.

(b) Mackenzie Delta Regional EDC

Advantages:

* As in 2(a), but greater, because of the regional base.

Disadvantages:

* As in 2(a), but greater.

Recommendation: As part of follow-up, these options should be placed before trappers at community meetings. Communities may differ in their evaluation of this question.

Management Options

1. HTA's Secretary/Manager, together with local government Wildlife Officer

Advantages:

* Knowledge of already existing equipment, supplies, etc.

* Would provide a good training opportunity for secretary/manager.

Disadvantages:

* Small business management expertise might not already exist, and would take time to develop.

2. Community/Regional EDC

Advantages:

* Business management skills already developed.

Disadvantages:

* Would need training in details relating to equipment, suppliers, etc.

Recommendation: That management functions for this warehouse be carried out on a business basis. Where the secretary/manager positions are filled, that they be trained in the basics of small business management by band managers and/or by trainers contracted for the purpose, or through a specialized course or workshop series provided by the Regional Council's proposed small business management training program. Where such positions are not filled, that a local manager be found to run the business aspects of the warehouse.

Financing Options

1. Public Money
(from economic development grants such as ARDA, EDA, etc.)

Advantages:
* Grants already exist to provide this support.
* Immediate source; implementation could be fairly quick.

Disadvantages:
* May come with strings attached that would limit trappers' control.
* Does not increase trappers' independence and self-reliance.

2. Claims Money
(from advance, or from loans based on final land claims settlement)

Advantages:
* Would be based on own money.

Disadvantages:
* Too far down the road.

3. Private Money
(from contributions from trappers themselves, and from other supportive individuals)

Advantages:
* Increases ownership, responsibility, and involvement of trappers.

Disadvantages:
* Might be insufficient to meet requirements.

Recommendation: That financing for the warehouse come from some combination of public grants (through ARDA, EDA, etc.) and capital contributions from trappers themselves. The latter could take the form of money loans, shares, etc.; or could be a percentage of earnings; or a donation of fur or other products, whose proceeds would be contributed to the warehouse organization.

Follow-up Required:

The table that follows provides a time-plan for the steps or phases required to plan the supplies warehouse and bring it to the point at which it could open its doors. These steps are briefly described below.

Phase 1: Research. Background research with individual hunters and trappers, and with the community Hunters and Trappers Associations, to assess trappers' equipment needs, supplies and costs, and transportation systems and schedules.

Phase 2: Community Consultation. Community discussion with hunters and trappers, band councils, and regional development corporations, using the "Options for Management" and the information gathered in Phase 1.

Phase 3: Workshops. Workshops with the James Bay Cree Trappers Association in Quebec and/or the Old Crow Fur Co-op, to learn from the experiences of groups who have already taken steps in this direction.

Phase 4: Proposal. Once decisions have been taken about location, ownership, etc., a proposal will be written and fund-raising will take place to establish the warehouse.

Phase 5: Building Construction. Depending on the location of the warehouse(s) and the availability of existing buildings, a period of construction will be necessary to bring the warehouse(s) to a condition suitable for operation.

Phase 6: On-the-job Training. Management of the warehouse(s) will be a major consideration. It will be necessary to train potential candidates for the position(s). The amount and type of training required will vary, depending on the skills and experience of the candidates, and on whether they have taken part in the Mackenzie Delta Regional Council's Small Business Management Training Project. This phase includes design of the training package, fund-raising, selection of trainees and participants, and delivery of the training program itself.

Phase 7: Equipment Purchase, Stocking, and Organization: As training is completed, the manager(s) will have to purchase equipment for, stock, and organize the warehouse(s) and prepare for the operational phase.

Phase 8: Operation. The doors should open approximately 15 months after the initial research phase begins.

Financial and Staffing Requirements
(Based on one warehouse in each of the four Delta communities)

Phase 1: Research
Staffing: RRD* with local HTAs and Wildlife Officers.
Finances: RRD travel, $2,000.

Phase 2: Community Consultations
Staffing: RRD with local HTAs and Wildlife Officers.
Finances: RRD travel, $10,000 (for workshops, trip to Old Crow, etc.).

Phase 3: Proposal-Writing and Fund-Raising
Staffing: RRD with local HTAs and Wildlife Officers.
Finances: --.

Phase 4: Building Construction (as needed)
Staffing: RRD with construction firms and band managers, etc.
Finances: Four communities @ $50,000 = $200,000.

Phase 5: On-the-job Training
Staffing: RRD with HTA secretary-managers, business management trainer, etc.
Finances: Salary and expenses of trainer; total package $25,000.

Phase 6: Equipment Purchase, Stocking, and Organization
Staffing: Warehouse managers/trainers.
Finances: Four communities @ $50,000 = $200.000.

Funding Requirement: $437,000.

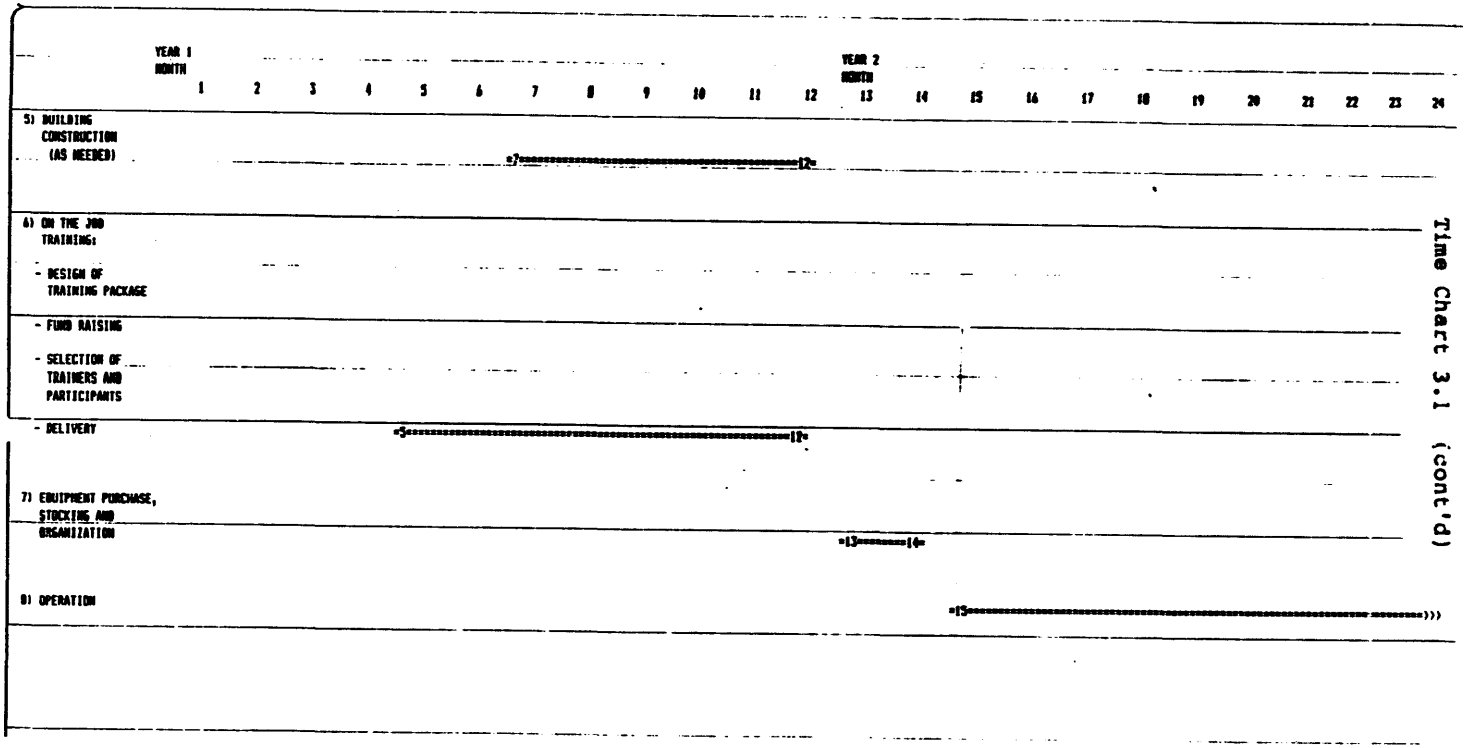
Jobs Created:
Four jobs for management of community warehouses. (These functions could become part of the job description for the HTA secretary-manager, or could be handled separately. Only one secretary-manager position exists in Fort McPherson.)

* In this and subsequent projects the work of the Renewable Resources Director in these phases is considered to be part of the job description for that position, so that no additional salary expense is required.

SUPPLIES WAREHOUSE

	YEAR 1 MONTH											YEAR 2 MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1) RESEARCH:																								
- TRAPPERS EQUIPMENT NEEDS																								
- SUPPLIERS																								
- COSTS																								
- TRANSPORTATION SYSTEMS AND SCHEDULES	1					2																		
2) COMMUNITY CONSULTATION:																								
- OWNERSHIP - MANAGEMENT - FINANCING - LOCATION - OPTIONS PREPARED AND DISCUSSED			3						4															
3) WORKSHOPS WITH JAMES BAY CREE, OTA, OR TRIP TO OLD CROW FUR CO-OP, ETC.																								
4) PROPOSAL:																								
- WRITING AND FUND RAISING FOR WAREHOUSE									5											6				

Time Chart 3.1



Time Chart 3.1 (cont'd)

3.2 Aklavik Fur Garment Shop

Organized fur garment production in Aklavik started off with the formation, in the mid-1960s, of Aklavik Fur Co-operative, a production co-operative organized locally through Arctic Co-operatives Limited (ACL).

In the mid-1970s a proposal was put forward by the Department of Economic Development of GNWT to amalgamate the Aklavik Co-op with its sister parka manufacturing co-op in Tuktoyaktuk, forming the Delta Fur Corporation, a government-owned and -run operation. Although the Aklavik Co-op had $50,000 in the bank and was a successfully operating business, this amalgamation -- presumably to take advantage of economies of scale in materials purchasing and management systems -- took place. Unfortunately it did not work out, and the Aklavik arm of the Delta Fur Corporation folded in 1983.

During its operation, the benefits of the fur shop to local people were many:

- It provided training in fur garment production for numerous local women who were employed by it at one time or another, and also trained one local manager.

- It provided employment and income to local people, many of whom were female heads of single-parent households; it provided a stable employment opportunity for a number of people who would not otherwise have had the experience.

- As we know from our research on the fur industry, the greatest value added is in the manufacturing and retail sectors of the industry. By developing these sectors locally, the fur shop made it possible for local producers to capture value added through secondary processing, rather than exporting raw fur products alone.

- It generated two important inter-related spin-offs.
  (1) Craft production: The Aklavik Craft Shop was started by and benefited from the management and production expertise of the fur shop itself.
  (2) Tourism: More tourists came across from Inuvik, and the fur shop was one of the local attractions. Tourists purchased from both the Fur Shop and the Craft Shop.

- It helped to build community pride, through the production of locally designed and manufactured items of high quality.

Numerous people -- many of them local women -- have expressed an interest in seeing the Fur Shop or some form of organized fur garment production open up again. It is indicative of this interest that, when the Fur Shop closed down, a number of former workers bought some of the fur machines and continued to make fur parkas on special order. However, there should be concern that the former employees are part of an aging workforce, and that training and re-training will be an issue to be addressed in the start-up phase. Three other major problems identified with the previous organization should be borne in mind:

- o Labour: finding and maintaining a steady workforce, or a pool of workers, so that production can be kept up on a continous basis.

- o Management: Finding and maintaining a good manager, either locally or from outside, who can work with local people.

- o Production: Designing a smooth and efficient production process that eliminates waste, cuts costs, and ensures high quality.

In addition, it will be crucially important to assess whether the anti-fur lobby in Southern Canada and internationally has cut into the fur garment market so much that a specially northern item such as the muskrat or coyote parka will not be saleable in those markets. If so, is a regional, territorial, or northern market sufficient to warrant the redevelopment of production and marketing in Aklavik? This marketing issue must be addressed first, to determine whether production should be designed for regional or national sales.

Follow-up Required

A pre-feasibility study is necessary to design the feasibility study for starting fur garment production (particularly the muskrat parka) in Aklavik. The Regional Council has obtained funding from the Department of Economic Development for this stage, which should be completed early in 1986.

Recommendation

That an Aklavik Fur Garment Production Steering Committee be formed, to guide the feasibility study and follow-up required for the start-up of fur garment production. Membership on this committee would include:

Aklavik community:

2 representatives of past workers
Chief Freddy Greenland
Band Manager

Regional Council:

Executive Director/ RRD/ Economic Planner

Department of Economic Development, GNWT:

Regional Director
Economic Development Officer

The broad outline of the feasibility study, which should be read with the accompanying table, is contained in the following four phases; obviously, greater community and fur industry consultations are necessary to flesh out this skeleton outline.

Preparation at the outset involves the selection and preparation of the consulting team, which will pool the expertise of a number of consultants in marketing, fur garment manufacturing, and management. The feasibility study itself will then proceed through the following four phases, with the subsequent preparation of a business plan, fund-raising, construction as necessary, training, and start-up.

Phase 1: Markets

1. Target three markets:

   - o Southern Canadian major cities (Edmonton, Calgary, Montreal, Toronto, Ottawa, Regina, Winnipeg, etc.).
   - o Northern provinces and small cities (Fort McMurray, Prince George, Saskatoon, Thunder Bay, etc.).

- o Territorial (Inuvik, Yellowknife, Frobisher Bay, Whitehorse, and possibly Alaska).

2. Determine for each of these target markets:

   * market segments
   * size of market
   * price ranges
   * volumes needed
   * best means of marketing.

The options for means of marketing include:

   * Canadian Arctic Producers (CAP)
   * independent agents
   * southern factories (such as Marcus/Regal Furs in Edmonton)
   * large chains (Bay, Simpson's, high-quality sporting-goods stores such as Eddie Bauer, etc.)
   * mail order from Aklavik
   * links with well-known Canadian fur designers such as Leo Chevalier, Alfred Sung, for possible international sales

3. Decide: Does the market warrant production? If a market does exist and production is warranted, then the next three phases of the feasibility study will proceed.

Phase 2: Manufacturing

Two manufacturing options are available: (1) a central manufacturing facility in Aklavik, on a factory basis; (2) cottage craft industry: sewing done at home by individual producers.

Option 1: Central Manufacturing

Advantages:

- o greater control over work process, and over quality and quantity produced.
- o may lead to more efficient production and help to cut costs.

Disadvantages:

- o not everyone who wants to sew necessarily wants to do so outside her home in a central place; this option may conflict with home responsibilities.
- o the 9-to-5 schedules were not easily established before; they might still be difficult.

Other decisions need to be made if this option is chosen, relating to:

- o degree of specialization in the manufacturing process;
- o building design and production process;
- o basis of pay: piecework, or by the hour.

Option 2: Cottage Craft Industry

Advantages:

- o would eliminate the capital cost of a factory
- o might fit better into the home schedules of the employees, who would be mainly women

Disadvantages:

- o a greatly reduced central facility for distribution of material or for the purchase of finished products
- o little control over the quality and quantity produced, unless substantial training is done beforehand.

If this option is chosen, the exact details of how production would be organized on a cottage-craft basis will have to be spelled out in the feasibility study.

Recommendation

That -- always assuming the pre-feasibility study has indicated there is a market and that production is warranted -- there be a phased approach to production: that it be organized first on a cottage-craft basis and, if production and sales warrant, an assessment of the desirability and feasibility of a central facility be done at that time.

Phase 3: Ownership and Management

Option 1: Community and/or
Regional Development Corporations

Under this option, ownership and management would be by the Aklavik Development Corporation, the Mackenzie Delta Regional Development Corporation, or as a joint venture of the two.

Advantages:

- o Local/regional responsibility ensured
- o Could collectively draw on a large pool of financial resources

Disadvantages:

- o Does not now have fur industry expertise to guide the project (although this expertise is being developed)

Option 2: Workers Co-operative

Under this option, a core group of workers would organize to form a Workers Co-op.

Advantages:

- o Would provide the greatest means of accountability and input from local workers
- o Would most effectively develop local leadership and skills

Disadvantages:

- o Potential problems in working out relationships with ACL, getting financing, etc., given the current attitudes of the Department of Economic Development towards the ACL
- o Longer to develop; would need extensive education on the responsibilities and obligations of co-op membership.

Recommendation

That materials on these options be prepared for community consultations, and that decisions by the Project Steering Committee be made after community consultations are complete.

Phase 4: Training

Because it is now almost three years since the Fur Shop closed, it is necessary to look at the training requirements for start-up and to design a training package and delivery system. Initial contacts have been made with George Brown College in Toronto, which runs a Fur, Leather, and Suede Training Program, the only one of its kind in Canada. They have indicated willingness to design and deliver a training package in Aklavik through Arctic College.

As noted in the following table, community consultations on these issues are built into each phase. It is proposed that a team be pulled together, consisting of Aklavik workers and community leadership representatives, Regional Council resource people, and specialist southern consultants from the fur industry with expertise in marketing and design. The pre-feasibility design should include identification of southern consultants.

The last stage of the feasibility study will be the preparation of a detailed business plan on all aspects of starting up fur garment production.

Fund-raising will take place to put the detailed business plan into operation. If the option of central production is chosen, time must be allocated for the construction of a factory facility.

Finally, workers must be selected and trained in a proposed six-month training project, to refresh those with experience at the Aklavik Fur Shop and to provide basic training for new workers. It is estimated that start-up of the Fur Shop could take place 22 months after the design of the pre-feasibility study.

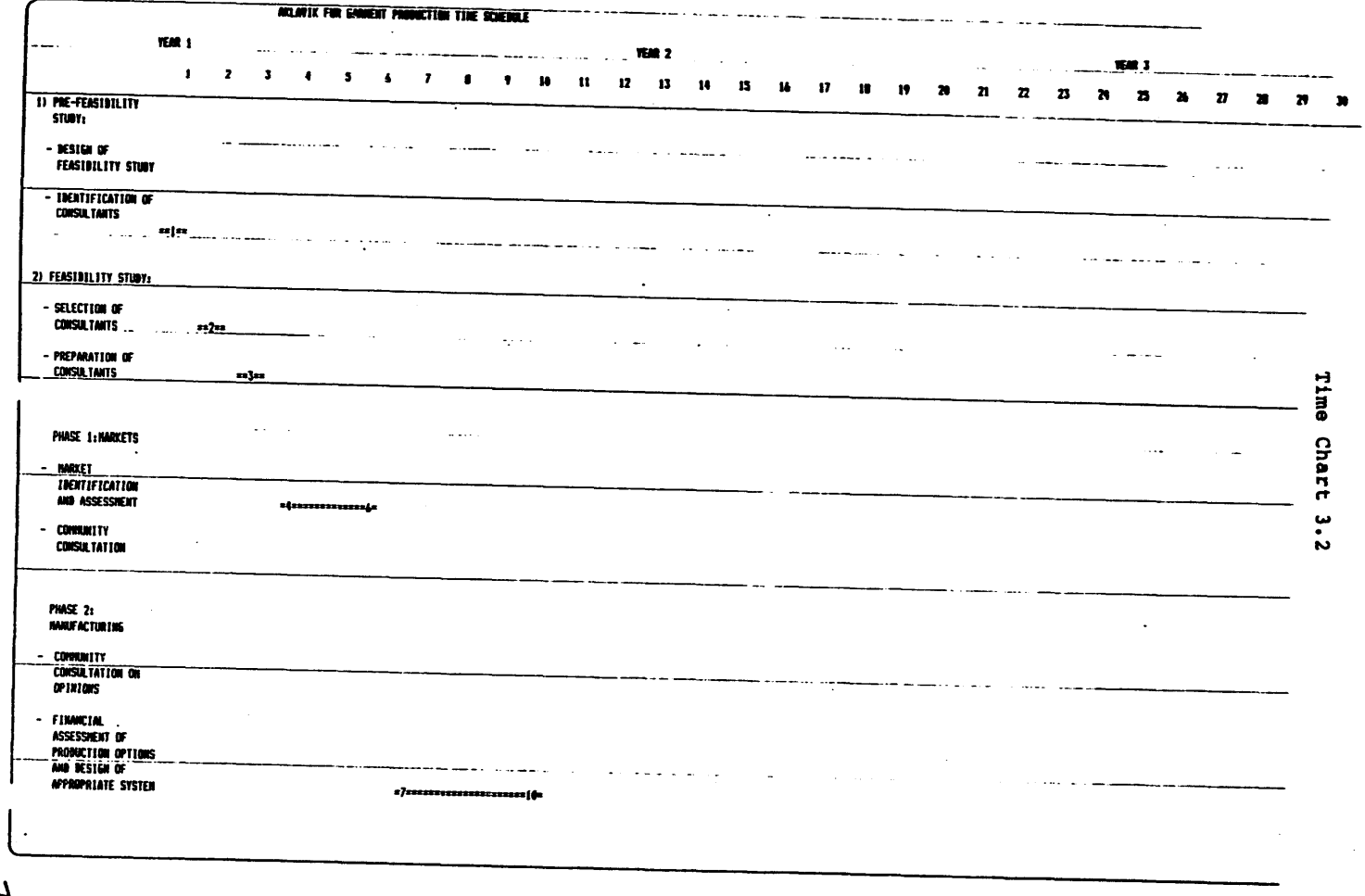
Financial and Staffing Requirements

Pre-feasibility study:	
* MDRC consultant	$ 4,000
Feasibility study:	
* Study co-ordination. Study Co-ordinator, MDRC staff.	30,000
* Selection, preparation of consultants. Study Co-ordinator, MDRC staff	--
* Phase 1: Markets. Co-ordinator, consultant.	15,000
* Phase 2: Manufacturing. Co-ordinator, consultant.	10,000
* Phase 3: Ownership and Management. Co-ordinator, consultant.	10,000
* Phase 4: Training Package Design. Co-ordinator, George Brown College.	15,000
Travel:	20,000
Construction of facility: Engineering/Construction Firm	(50,000-250,000*)
On-the-job training and start up (15 trainees). George Brown College Trainer, trainees	145,000

Funding Requirements: $299,000-499,000

Jobs Created:
10 workers and 1 manager = 11 full-time positions.

* Depending on manufacturing option chosen.



Time Chart 3.2

Time Chart 3.2 (cont'd)

Time Chart 3.2 (cont'd)

6) ON THE JOB TRAINING PROJECT AND START-UP:	
- SELECTION OF TRAINEES/WORKERS	
- 6 (SIX) MONTH TRAINING PROJECT	=Z2=========Z7=

3.3 Incentive/Subsidy Program for Hunters and Trappers

From Fee-Yee's hunter/trapper interview analysis (Appendix 8.4 of this volume) and our statistical analysis (contained in the Introduction to this Development Plan), it is very clear that returns to the trappers have declined seriously in the last ten years, and certainly in the last twenty years. Average production costs have increased substantially, while average returns have increased only marginally; trappers are being squeezed from both sides.

As noted in Table 3.5, Cost of a Basic Trapping Outfit (adapted from Fee-Yee's report), the capital cost of a Basic Trapping Outfit in 1965 was $1,733 in 1961 dollars, or $5,493 in 1981 dollars adjusted for inflation for the purposes of comparison. The capital cost of a Basic Trapping Outfit in 1985 is $17,134 in 1985 dollars, or $13,536 in 1981 constant dollars. The real cost of a Basic Trapping Outfit is now 246% of its cost in 1961/62 when compared in 1981 constant dollars -- roughly two and a half times as much.

It is also important to note that the actual items in the 1985 Basic Trapping Outfit have changed; we are not comparing the same bundle of goods. However, the 1985 costs do reflect the capital goods that all trappers have and consider necessary for their bush activities in the current year. We should also note that these costs are for capital goods alone; they do not include operating costs (the chief of which are gas and motor oil), which add significantly to the total amount of money needed for trapping and hunting.

On the income side, Table 3.6, Total Fur Dollars and Average Trapper's Incomes (adapted from Fee-Yee's report) shows the following (in 1981 constant dollars):

83/84 Total Fur Dollars were:	74%	of 61/62 in Aklavik
	89%	of 61/62 in Arctic Red River
	113%	of 61/62 in Fort McPherson
	110%	of 61/62 in Inuvik
83/84 Averge Income was:	72%	of 61/62 in Aklavik
	134%	of 61/62 in Arctic Red River
	92%	of 61/62 in Fort McPherson
	54%	of 61/62 in Inuvik

Cost of a Basic Trapping Outfit 1961-1985

1961		1985	
No. Per Household	**Cost**	**No. Per Household**	**Cost**
120 muskrat traps	$ 112.35	156 Traps (based on avg. price for all sizes 13 doz. @ $75/doz.) Note: higher if big traps or conibears used.	$ 975.00
2 dozen marten traps	31.00	4 rolls snare wire 4 - lynx @ 3.75	15.00
1 dozen mink traps	24.60	4 - rabbit @ 1.15	4.60
1 dozen beaver traps	43.20	2 22's @ 209.00	418.00
4 rolls snare wire	.60	1.7 rifle @ 486.00	826.20
22 rifle	29.95	1.6 shotgun @ 469.82	751.71
30.30 rifle	95.00	1.1 speedboat @ 2,752.50	3,027.75
scow	300.00	1 canoe	589.00
ratting canoe	250.00	1.5 kicker @ 2,381.66	3,572.49
10 H.P. motor	406.00	5.5 nets	96.00
7 dogs	200.00	1.6 toboggan (sleigh) @ 500.00	800.00
dog harness	50.00	1.4 tent @ 417.99	585.19
2 fish nets	48.00	2.4 axe @ 30.48	73.15
snowshoes	24.00	1.4 skidoo @ 3,411.75	4,776.45
toboggan	65.00	1.3 chainsaw @ 479.50	623.35
tent	48.00		
axe	5.00		
Total 1961 Dollars:	$1,732.70	TOTAL 1961 Dollars:	$17,133.89
1981 Equivalent Dollars:	$5,492.66	1981 Equivalent Dollars:	$13,535.77

Table 3.5

Notes: 1961 outfit and costs taken from DIAND Area Economic Survey 1965
1985 outfit and costs based on survey results and average current prices
(see chart 3)

Based on Fee-Yee Consulting Ltd.

Table 3.6

TOTAL FUR DOLLARS and AVERAGE TRAPPER'S INCOMES
SELECTED SEASONS 1961/62 - 1983/84

	Season	Total Fur Dollars Paid	Total Fur Dollars 1981 Equiv*	No. of Trappers	Average Income (Fur)	Average Income 1981 Equiv*
Aklavik:						
	61/62	$ 58,353	$184,979	151	$ 386	$1,224
	73/74	$ 67,428	$142,272	111	$ 607	$1,282
	81/82	$209,443	$209,443	160	$1,309	$1,309
	83/84	$161,467	$137,247	157	$1,028	$ 874
Arctic Red River:						
	61/62	$ 12,335	$ 39,102	34	$ 360	$1,141
	73/74	$ 13,596	$ 28,687	28	$ 486	$1,025
	81/82	$ 56,265	$ 56,265	31	$1,815	$1,815
	83/84	$ 41,321	$ 35,123	23	$1,797	$1,527
Fort McPherson:						
	61/62	$ 38,273	$121,325	109	$ 351	$1,113
	73/74	$ 39,476	$ 83,294	113	$ 349	$ 737
	81/82	$135,258	$135,258	135	$1,002	$1,002
	83/84	$161,275	$137,084	134	$1,204	$1,023
Inuvik:						
	61/62	$ 52,717	$167,113	71	$ 742	$2,352
	73/74	$ 70,410	$148,564	124	$ 568	$1,198
	81/82	$114,747	$114,747	103	$1,114	$1,114
	83/84	$215,899	$183,514	145	$1,489	$1,266

* Actual dollar amounts translated into 1981 Constant Dollars -- the 1981 equivalent in real purchasing power of the money received at the time -- so that real values can be compared in spite of inflation.

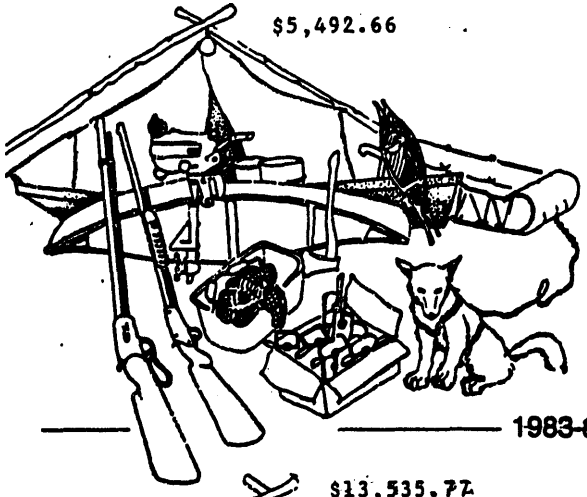
Based on data from Fee-Yee.

Figure 1

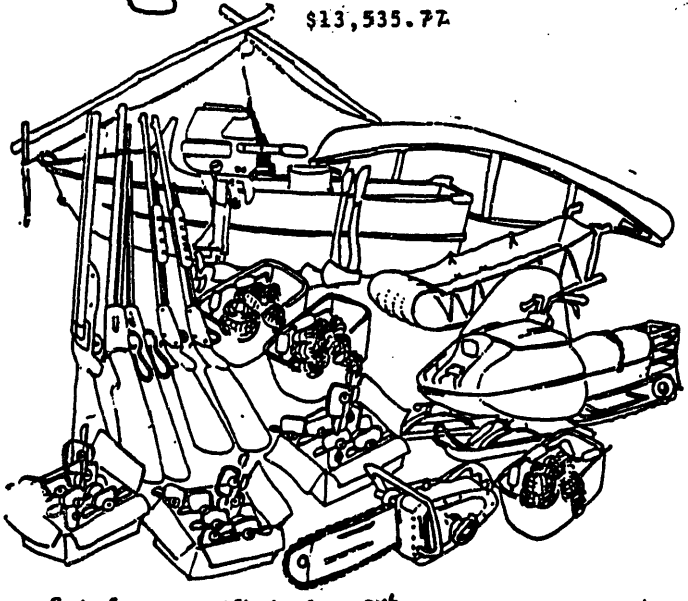
Average Outfit Cost for 4 Delta Communities

Inuvik Fort McPherson Arctic Red River Aklavik

Average Outfit	Average Income
1961-62	
$5,492.66	$1,457.41



1983-85	
$13,535.72	$1,128.33



Cost of average outfit is almost 2¼ times greater than 20 years ago when adjusted for inflation.

Average income is 3/4 of what it was 20 years ago when adjusted for inflation.

[Based on Fee-Yee Consulting Ltd. Figures are in 1981 Equivalent Dollars.]

In Figure 1, Average Outfit Costs for 4 Delta Communities, outfit costs and income over the twenty-year period are juxtaposed so that they can be compared for 1961-62 and for 1983-85, and across the twenty-year period. The following conclusions are based on 1981 constant dollars:

1. Even in 1961-62 the average outfit cost was almost four times (377%) annual income.

2. But in 1983-85, the average outfit cost was 12 times average income (1200%).

3. By 1983-85 the cost of an average outfit had become almost two and a half times what it was twenty years earlier (246% of 1961/62).

4. Average income in 1983-85, on the other hand, was only about three-quarters (77%) of what it was in 1961/62.

This historical analysis shows that the squeeze on the trappers is not a recent phenomenon but appears to predate, by at least a decade, the move into the communities that occurred in the early 1970s. The serious constraints under which trappers operate have a long history. We are now in a position to have major input into government policy -- specifically, that of the Department of Renewable Resources -- on support programs for hunters and trappers.

This analysis should not be construed as being critical of current policies and programs of the Department of Renewable Resources. On the contrary, it is clear that the fur marketing service, the outpost camps programs, the incentive and loan programs have all had a beneficial impact on the continuation of hunting and trapping in the Mackenzie Delta. For example, information supplied by the Department of Renewable Resources, Inuvik Region (see Table 3.7, 1984/85 Fur Sales by Buyer, Three Communities) demonstrates that the Department's Fur Marketing Service is used extensively by trappers in the region. The GNWT component of total fur sales ranges from a low of 4% in Arctic Red River to a high of 73% in Fort McPherson. A number of factors may account for such a low component in Arctic Red River:

- o there is no Wildlife Officer based in the community and easily accessible to it;

- o the community is on the Dempster Highway and therefore it is as easy to go to Inuvik as to Fort McPherson;

Table 3.7

1984/85 FUR SALES BY BUYER, THREE COMMUNITIES*

Buyer	Inuvik ($)	Inuvik (%)	Arctic Red R ($)	Arctic Red R (%)	Ft McPherson ($)	Ft McPherson (%)	Total, Three Communities ($)	Total, Three Communities (%)
GWWT	116,650	48.8	1,046	3.9	82,561	72.8	200,257	52.8
Semmler's	94,782	39.6	23,266	86.0	475	0.4	118,523	31.2
RDR	23,573	9.9	972	3.6	3,005	2.7	27,550	7.3
Hudson's Bay	3,586	1.5	1,340	5.0	19,756	17.4	24,682	6.5
Tetlit Co-op			400	1.5	5,290	4.7	5,690	1.5
Krutko's			6	--	2,267	2.0	2,273	0.6
Coppermine Co-op	470	0.2					470	0.1
Aklavik Gen.	3	--					3	--
	239,064	100%	27,030	100%	113,354	100%	379,448	100%

* Figures for Aklavik were unavailable at time of compilation.

Data source: Government of the Northwest Territories, Inuvik.

- there has been a historical pattern of selling fur to Slim Semmler, which obviously continues to the present day;

- there has been no continuously accessible local supply of bush equipment in the community, which has made it necessary to combine driving to Inuvik for equipment and supplies with selling fur there. (The existence of the Band Store in the community should change this.)

However, the returns from the other communities clearly indicate a high degree of trapper use of the Fur Marketing Service.

Given the data on cost and revenue from fur production, and our knowledge of the credit/debt dependency syndrome that most trappers find themselves in, it can be concluded that the Department's programs have made a very positive contribution to -- even a critical difference in -- the continuation of hunting and trapping.

The critical question, however, is whether these programs go far enough in supporting trapping and hunting activities. For example, is the automatic incentive cheque (10% of total fur income between $600 and $3000) a realistic incentive? We contend that this is not a realistic or meaningful incentive level for a small business person (which is what a trapper is) whose fixed capital costs alone are in the neighbourhood of $17,000.

The question of supporting trapping per se in the Delta is inseparable from the question of supporting the on-the-land way of life, including trapping, hunting, and a range of other bush-based and related activities. It is recommended as an operating principle that support programs recognize and support not only the trapping activity itself but also the whole range of other land-based activities of which it forms a part.

Criteria for Participation in Support Programs

One basic parameter on which we designed our hunter/trapper surveys was that trapping can be pursued in the Delta in a variety of ways -- as a full-time activity fitted into other employment opportunities, from the community, or from a bush camp, etc. After extensive discussion with Fee-Yee on this issue, it was decided to categorize the trappers in two distinct groups, while recognizing there are also a range of sub-groups: (1) full-time trappers, who spend at least two

seasons of the year living at trapping camps; (2) part-time trappers, including all others, even those who live in town and trap on a full-time basis.

Recommendations

It is recommended that:

1. Trapping support programs be developed that recognize these distinctions in the way trapping is carried out; that a two-tier system be created, with greater support for those full-time trappers who

   (a) spend most of their time on the land -- that is, at least two seasons of the year living at trapping camps;

   (b) who rely heavily on bush products and fur income for themselves and their family units.

This group should be the priority for greatest support, while part-time trappers continue to receive a basic level of support.

2. The level of support for all trappers be increased to reflect actual costs and revenues in the Delta.

Of the existing GNWT/Renewable Resources support programs, we would suggest maintaining the following as they are: (1) Outpost Camps programs; (2) Fur Marketing Service; (3) Gasoline Subsidy Grant; (4) Special ARDA; (5) Organized Caribou Hunts.

Four new support programs, that can be developed to more adequately benefit hunters and trappers, are outlined in detail below. They are:

1. Guaranteed Income Support Program

2. Fur Production Incentive Programs:

   (a) expanding the existing Incentive Grants
   (b) Trappers Loan and Incentive Program
   (c) Price Stabilization (per species)

3. Subsidy of Supplies Warehouse

4. Beginning Trapper/Hunter Capital Support Program.

1. Guaranteed Income Support Program. This model was developed and implemented first for Cree and Inuit people in Northern Quebec as part of the James Bay Settlement. As noted in Fee-Yee's analysis in Appendix 8.4 of this volume, it is only a part of an integrated series of provisions to support hunting, trapping, and fishing as a viable economic option, and is not meant to stand on its own without these other programs.

Eligibility criteria for a Mackenzie Delta Guaranteed Income Support Program could be based on a number of factors:

- o Time spent on harvesting and related activities -- including a minimum amount of time spent at a trapping camp. This could be designed to build in greater support for full-timers, while not neglecting part-timers.

- o Income derived from harvesting and related activities -- beneficiaries would have to derive the greater part of their income from these activities.

- o Bush units: to be flexible, they could allow support for both single individuals and for units consisting of one adult with a consort and/or with one or more dependents.

- o Eligibility based on the previous year; the criterion could be either

  (a) the previous year's production, or the time spent in the bush, above a certain level; or

  (b) a bonus given, in the calculation of incomes for fur production, above a certain harvest level and/or a certain dollar level.

- o Location: the program could be designed to encourage trapping activities around a trapping camp, rather than from town.

Other operating features of the Income Support Program could include:

- o Benefit calculations could be based on either

  (a) a per diem, based on days spent in harvest-related activities outside a permanent settlement, plus a guaranteed minimum amount based on family size and other income (as in the James Bay programs); or

  (b) the definition of a target income level based on size and composition of the beneficiary unit, and regular

payments (perhaps on a monthly or quarterly basis) of that income, provided that certain minimum eligibility requirements are met. This might be a smaller amount than the total in (a) above, but it should also be coupled with incentive payments for fur harvests (see the second program outlined below).

- o Benefit calculations based on a local/bush cost-of-living index, to more accurately reflect the higher costs of living in the Mackenzie Delta. This index would be based on an average bush outfit and its cost, and either indexed to the Southern CPI or renewed annually according to a Delta/bush CPI. (The latter would be based not only on Delta prices but its composition would be based on the bundle of goods needed for the bush.)

We now have historical and current data on bush equipment needs and costs, and could begin to develop an assessment of income and support levels based on needs for a support program of this nature. No specific formulae are proposed here for either eligibility or benefit calculations, on the assumption that these need to be worked out after the broad principles, parameters, and approaches have been agreed to.

2. Fur Production Incentive Programs. A number of people have expressed concern that trapping income support programs are a thinly disguised form of welfare and that they decrease trappers' pride and self-sufficiency in the long run. It is argued that it is far better to devise programs that reward incentive, usually on the basis of production, than to provide a guaranteed income which may simply reward lack of production. According to this perspective, it is a positive element in the James Bay model that its eligibility criteria include the requirement that a certain amount of time be spent in the bush.

However, there are two key problems with incentive programs when applied to the trapping industry, both in their design and in their implementation:

(1) Natural cycles and fluctuations in fur harvest levels make the use of harvest levels as incentives difficult;

(2) An incentive program may interfere with the maintenance of the species on a sustainable-yield basis. For example, in a Group Trapping Area like the Mackenzie Delta, a production incentive might result in a harvest level that damaged the species and the environment.

But despite these arguments against an incentive program, our research clearly shows that it is virtually impossible for a trapper to make ends meet; some kind of improvement in support is necessary to prevent the industry from dying off. Therefore it is recommended that the Regional Council discuss the design and implementation of a production incentive program.

The second point above is allayed in part by our research with hunters and trappers, which indicates that a hybrid management system has evolved -- somewhat between an individual registered trapline and a group area system; it might be called a "family territory system." The precise area may vary according to season and activity, but the land used remains, for most trappers, basically the same from one year to the next. Information and knowledge about the land are passed on from one generation to the next, and a management system for the territory is developed and continued. An incentive program could be designed to work hand-in-hand with a habitat management system for fur-bearers, to further allay the concerns expressed above about the maintenance of sustainable yields.

The Regional Council could consider the following two approaches to the design of a Mackenzie Delta Fur Production Incentive Program. Both approaches offer benefits to full-time and to part-time trappers through a two-tiered system that gives greater incentives to full-time trappers.

(a) Expanding the Existing Incentive Grants. In the light of our research, an evaluation of the existing Incentive Grants should be undertaken, most likely by the Joint Management Committee. We have questioned whether it is a meaningful level of support, given current production costs and revenues in the Delta. Given fluctuations in price from year to year and from auction to auction, we also raise the question of its being based on the dollar value of production, rather than on harvest levels or a pelt basis. We further propose that a two-tier system be established to recognize the distinction between full- and part-time trappers, with a greater level of support being given to full-time trappers. In short, we recommend (i) raising the level of support for these existing incentive grants, and (ii) fine-tuning the program to recognize the realities of production in the Delta.

(b) Trappers Loan/Incentive Program for Production. A major problem for trappers is the amount of time it takes to get money back from the sale of furs, particularly when sending the fur out to auction. Grub-stake loans and re-outfitting costs for the next trip must be met. The following are

suggested as operating components for a new incentive and loan program:

- o realistic assessment of a trapper's needs for cash, based on outfitting costs and other sources of income, and the identification of a loan amount that more adequately reflects the costs of production.

- o loans given specifically for outfitting, etc.

- o when a trapper brings in his fur, he should be paid an incentive according to the following formula:

  - during the first year: 3 times his average fur income in the previous five years;
  - during the second year: 2 times his average fur income in the previous five years;
  - during the third year: 1 times his average fur income in the previous five years.

- o the amount of the loan the trapper can negotiate through participation in this program should be deducted from the incentive owed to him. The loan and the incentive grant will thus be tied together, to simplify administration and to minimize the possibility of defaulting on loan repayment.

(c) Price Stabilization Program. This is a third proposed component of the Fur Production Incentive Program. It has been introduced to a certain extent in the fishery on Great Slave Lake, where a guaranteed basic price per kilogram for whitefish is paid to fishermen. The situation is similar to that of trapping, in that commercial fishing costs have increased every year for the past seven years, but the market price for the catch has not. In both industries, market price fluctuations make returns for fishermen and trappers extremely uncertain, which precludes the planning of long-range investments. However, unlike trapping in the Delta, the Great Slave Lake fishery deals with a monopoly buyer: the Freshwater Fish Marketing Corporation.

A floor price per species could be established (based, most likely, on a predetermined break-even point per species). If the price at auction exceeded this floor price, no subsidy would be given; if it fell below this floor, a subsidy would "top up" the trapper's income, bringing him up to the floor price level.

The subsidy could be administered as part of the existing GNWT Wildlife Service's Fur Marketing Service, and could be

distributed in the form of a cheque at the beginning of the following season.

This would help to solve the problems of low returns to the trappers, by creating a more stable price structure. To a certain extent it would also help to bring in more money just when it is most needed: at the beginning of the following season when the trapper is getting outfitted for the bush.

The difficulty with this program lies in determining a floor price or break-even point on a per-species basis. This price might be comparatively easy to determine for some species, such as muskrat, and harder for other species such as wolf or lynx. A further question to be addressed is whether the floor price would be established as an average price for all furs, or whether separate floors should be established for the various conditions and grades of furs. These issues, and the price levels, would have to be determined by the Joint Management Committee in consultation with trappers and the Department of Renewable Resources' specialists in fur management.

3. Subsidy of Supplies Warehouse. As noted above, a proposal has been put forward for a Supplies Warehouse that would buy bush equipment in bulk and pass the savings on to the trappers. It is proposed that this Supplies Warehouse be approached as a profit-making operation, with the profits being re-invested in the enterprise and/or passed back to the trappers through a rebate or through lowered prices (depending on which ownership option is chosen). The discussion here centres on how a subsidy for the Supplies Warehouse might operate, if -- and only if -- it cannot operate on a profit or break-even basis. The dollar figure of a subsidy would have to be negotiated on the basis of cost and revenue figures. It is proposed, therefore, that a subsidy formula be based on one of the following options; the exact formulae to be used would be negotiated through the Joint Management Committee.

(a) Option 1. An audited assessment of the Warehouse will determine the extent of the loss of the operation in a given year. The subsidy would be calculated as a previously established percentage of the total loss.

(b) Option 2. In the feasibility study and in the follow-up business plan prepared for start-up, it will become clear whether the Warehouse will be able to operate on a profit or break-even basis. If profit-making is not possible, Option 2 proposes an itemized subsidy: for those items showing the greatest losses (e.g., those for which the sale price does not

cover cost plus transportation plus administrative costs), a subsidy to the Warehouse will cover the losses.

(c) Option 3. If items can be sold to trappers only on a break-even basis (i.e., cost plus transportation), which does not cover management and administration costs, an administrative subsidy would cover the latter costs (such as salaries for managers and clerks, building costs, etc.), allowing goods to be sold on a break-even basis, or on a profit basis if possible.

4. Beginning Trappers'/Hunters' Capital Support Program. As determined in the analysis of the hunter/trapper interviews, capital costs alone are roughly $17,000 annually. Additional operating costs are high, due largely to the high cost of oil, gas, and food in the Delta communities. It is no wonder that trappers, regardless of their age and experience, are discouraged from entering the industry, especially on a full-time basis.

For most trappers, accumulation of capital equipment is the result of inheriting a set of traps and other equipment from a close family member, or of a slow investment built up over many years. Many younger people have had no chance to build up the capital stock necessary for an adequate investment in the industry. The Beginning Trappers'/Hunters' Capital Support Program would provide a specialized grant and loan program to younger trappers, to any first-time trapper, and to those returning to the industry after some time away from it. The following eligibility criteria are proposed:

- The recipient should be a GHL holder in the Delta Group Trapping Area.
- There should be no age limit, although primary emphasis would be on younger trappers, between 18 and 30 years of age; secondary emphasis would be on trappers, regardless of age, who are returning to the industry after some years away and who do not have adequate capital stock.
- The recipient should have demonstrated a proven interest in and commitment to trapping, either through participation in a trapper training program or a certain number of years (1-3) active involvement in trapping.
- The program would operate on a loan and grant basis.
- Calculation of the loan and grant would be based on a percentage of total costs of start-up, to be worked out on

the basis of detailed discussions with the trapper on equipment needs, other sources of income, etc. The program would be similar in operation to the Special ARDA program in requiring an equity contribution from the trapper himself. One option would be the following percentage breakdown: 25% grant, 50% loan, 25% trapper's equity.

- o Repayment of the 50% loan portion would be over a five-year period, and could be tied to levels of fur harvest on a pelt basis: if harvest levels were up over the five-year period, part of the loan could be made forgiveable.

- o This would be a once-only loan/grant program, to help beginning trappers get outfitted with an adequate capital stock of equipment.

Follow-up Required

It is recommended that the following two mechanisms be actively pursued, in order to implement the Incentive/Subsidy Programs identified by the Regional Council in this Development Plan.

1. Land Claims Negotiations of the Dene Nation/Metis Association, through the Dene/Metis Negotiations Secretariat. It is proposed that the Secretariat be approached with this or a similar package of programs to put support for renewable resources on the agenda for the claims negotiations table.

2. Joint Management Committee at the Regional Council level within the Mackenzie Delta, and through the Department of Renewable Resources' Policy and Planning Division at the territorial level. As noted in Section 2.2 on Implementation, the Joint Management Committee will consist of the Dene/Metis, the Department of Renewable Resources, and the Department of Economic Development at the regional level. It is recommended that the issue and design of support programs be one of the first items on the agenda at this Joint Management Committee, and that it be vigorously pursued by the Delta Dene/Metis.

As far as the territorial or national levels are concerned, it is suggested that the following avenues be explored:

(a) Department of Renewable Resources. This department has just received the second draft of a policy framework document. If the Regional Council is willing, it could put its plans and policies forward as an alternative approach and enter

into discussion on them at the territorial headquarters level. Given Departmental interest in learning about the Council's work in greater detail, now might be an opportunity to pursue this avenue, based on a co-operative approach.

(b) Economic Development Agreement. Talks with some people within the EDA indicate an interest in using the Council's work to help refine the details of the next generation of the EDA, the ERDA (Economic Resource Development Agreement), for 1987-1992. It is recommended that the Council work co-operatively with the EDA on this matter.

Implementation of the Incentive/Subsidy Program could be effected through the following six phases, as outlined in the table that follows.

Phase 1: Renewable Resources Workshop. The purpose of this workshop is for community representatives to discuss and refine the proposals outlined above for a re-designed Incentive/ Subsidy Program. Extensive discussion should be directed towards achieving a consensus on a proposed program which can then be taken to general community discussions in the Delta.

Phase 2: Community Consultations. Community consultations with HTAs, individual hunters and trappers, the proposed Land Use Authority, etc., will take place on the basis of the proposals refined in the above workshop. With the feedback from these community consultations, further refinement of the program proposed will take place.

Phases 3-6: Joint Management Committee, Dene/Metis Negotiations Secretariat, Department of Renewable Resources, Economic Development Agreement. On-going discussions will take place with each of these four agencies on their relevant program proposals. For example, the proposal for a Guaranteed Income Support Program might go exclusively to the Negotiations Secretariat, while a specific incentive or subsidy program like the Beginning Trappers/Hunters Capital Support Program might go directly to the Department of Renewable Resources.

Financial and Staffing Requirements

Phase 1: Renewable Resources
Staffing: MDRC Executive and Staff (esp. RRD)
Finances: $5,000.

Phase 2: Community Consultations
Staffing: MDRC -- RRD and 5 local consultants as needed.
Finances: $16,000.

Phase 3: Joint Management Committee
Staffing: MDRC Executive and Staff (Executive Director, RRD)
Finances: --

Phase 4: Negotiations Secretariat
Staffing: RRD
Finances: $3,000 (travel).

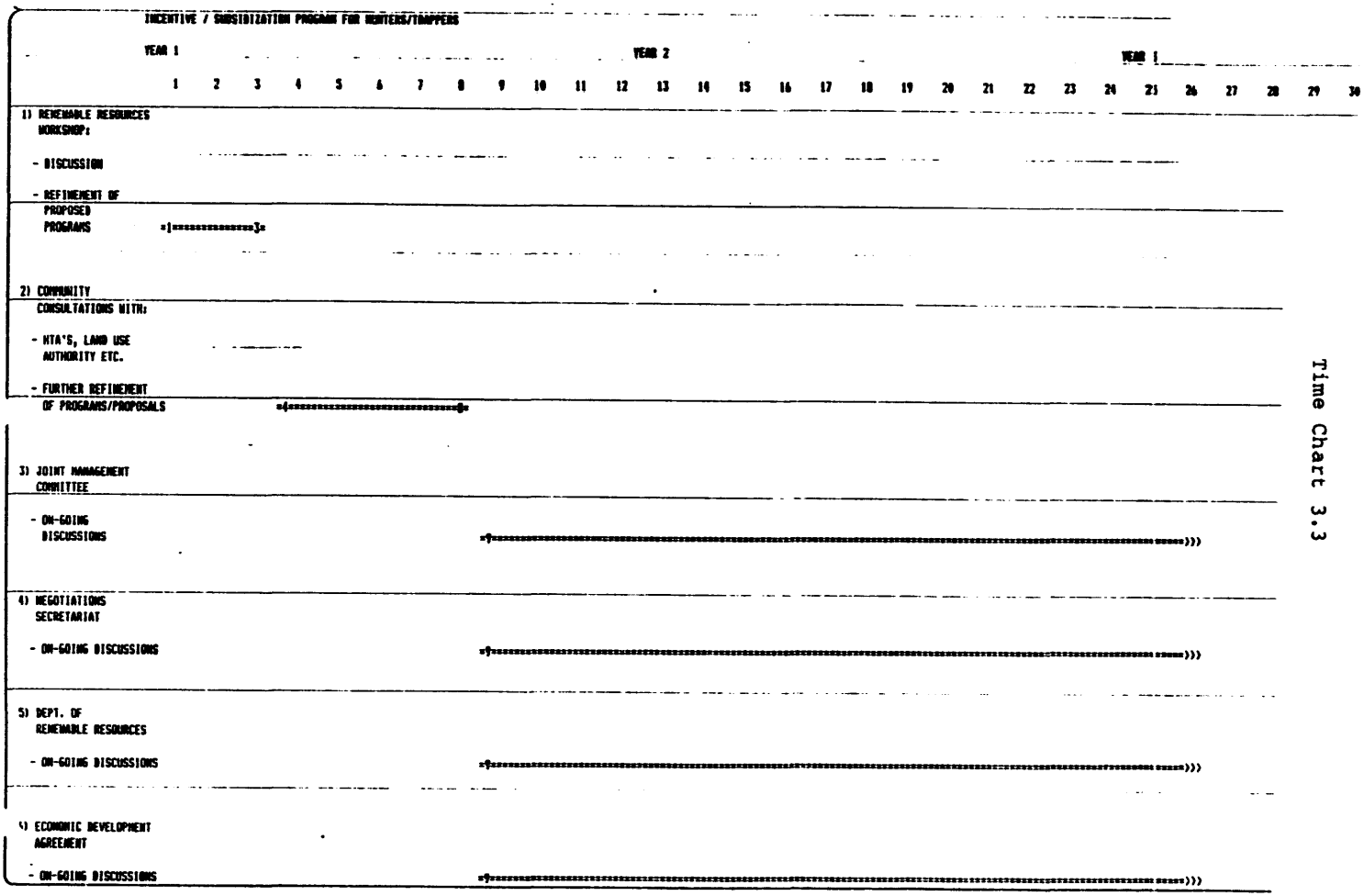
Phase 5: Department of Renewable Resources
Staffing: RRD
Finances: $3,000 (travel).

Phase 6: Economic Development Agreement
Staffing: RRD
Finances: $3,000 (travel).

Total funding requirements: $30,000.

Jobs Created: 5 local consultants, as needed.

Permanent Program Requirements:
To be determined as programs are further refined.



Time Chart 3.3

3.4 On-the-land Programs

The Euro-Canadian education system has had an established presence in the Mackenzie Delta communities for more than fifty years now. In the 1930s residential mission schools were established by the Anglican and Catholic Churches, taking in children from all across the North. Some of these children were at such a distance from their home communities that they were unable to return for years at a time. When people began to settle in the communities on a more permanent basis, however, day schools were opened -- in Fort McPherson in 1947 and in Arctic Red River in 1950. Over the past thirty years children have increasingly spent more time in classrooms and less time in learning the traditional skills of hunting and trapping and survival from their parents in the bush setting. Elders and parents in the communities are expressing great concern about the loss of bush and survival skills, and about the need to establish effective education programs for training young people in all aspects of their traditional culture -- hunting, trapping, fishing, crafts production, traditional medicine, etc. They want these programs not only to help children build a healthy and strong sense of their native identity, but also to help create a viable economic future for the coming generations. People in the Delta are critically aware of the limitations of the non-renewable resource economy in the region: its fragility, and its dependence on outside factors; the boom and bust nature of its cycles; its inability to provide for them over the long term. And they also legitimately seek recognition for the depth and range of skills that trappers and hunters possess -- including the right and the means to pass these skills and this knowledge on from one generation to the next.

The following section, then, presents a suggested framework for the development of On-the-land Programs, in order to pass these skills and this knowledge on to the young people and future generations. This suggested framework was discussed at the Fort McPherson Workshop on Renewable Resources, March 18-20, 1986.

A subsequent meeting was held in Arctic Red River on March 26, 1986, to discuss that community's priorities for renewable resource development. Participants decided that on-the-land programs were of highest priority for their community, and spent most of the day designing in greater detail the specifics of the In-School, Bush Camp and Apprenticeship Programs. The next step will be to work with the elected community leaders, the Elders, key hunters and

trappers (both male and female), school teachers, and the Departments of Renewable Resources and Social Services on implementation as identified in Volume 2, Appendix 5.2.

Proposed Programs

Parents are faced with difficult choices about the relationship between the teaching of bush skills and the current education program of schools. Far too often, it is perceived as an either/or situation: the child stays either in school and learns only the school curriculum, or in the bush, learning only the traditional skills. Either way, the learning of one area jeopardizes the other.

The Regional Council would like to see this change from an "either/or" situation to an "and" situation, based on the underlying philosophy that it is not only possible, but better, for children to learn both the traditional ways and the current modern education curriculum. What is needed is some effective way to integrate the teaching of these two areas of learning. The following three programs are proposed as such a means of integration.

1. In-School Programs. The design of this program is based on the following ideas:

- o that a beginning can be made at teaching traditional skills within the school setting, although it is clear that the best place for a child to learn about his/her traditional culture is in the bush.
- o the recognition that not all parents will want their children to participate in an extensive program teaching traditional skills on the land.
- o that without major changes to existing school curricula, schedules, and approaches, a school program may be all that can be put into place, depending on the community; but such a school program could be a crucial first step in developing, testing, and evaluating a more comprehensive program.
- o that local elders, skilled hunters and trappers, and others can come into the school and have contact with the children in a meaningful and significant way.

The curriculum components for such an in-school program might include:

- o oral/living history: elders telling stories about the recent past, the traditional way of life before settlement, changes in the way of life, political and economic developments, male and female roles and values, etc.

- o story-telling by elders: the old legends and stories.

- o day-trips to nearby snarelines, fish nets, traplines, etc.: experienced trappers/hunters and elders taking children on the land close to the community and teaching them (1) the rudiments of snaring, fishing, trapping, etc.; (2) natural history -- the animals, fish, weather patterns, etc.; (3) basic survival skills -- dressing properly, making camp, making fire, cooking, how to prevent and deal with frostbite, etc.

The traditional teachers could work in conjunction with school teachers to prepare curriculum units in language arts, math, history, geography, science, etc.

2. Bush Camp Programs. As indicated in the survey results (Fee-Yee, Vol. 2, Appendix 3.7, q. 38), all trappers agree that the best way to learn land-based skills is by experience. Thus, although an In-school Program recognizes the necessity of working with the existing school curriculum, the Bush Camp Program would provide a more intensive, in-depth learning experience in bush skills. Children would be taken on the land for 2-4 weeks at least four times during the year, to learn the seasonal round of activities. The setting would be a camp with facilities to house and take care of groups of 15-20 children. The learning experience would be structured and supervised. It is also suggested that the learning be incorporated into the existing school system, and that the children be taught and marked by the supervisors on their skills and behaviour as in a regular classroom. As in the In-school Program, curriculum components of oral/living history and story-telling by elders, and day-trips to the bush, could be developed in conjunction with teachers.

3. Apprenticeship Programs. The Apprenticeship Program would be the third step in this process. Those young people who demonstrate sufficient skill, interest, and commitment to trapping and hunting coulld move on to more specialized and intensive training, through being paired with an experienced hunter/trapper and/or family for an extended period of time. This could operate as an apprenticeship program, with accreditation through a local institution such as the proposed

Inuvik Campus of Arctic College. As with the other two programs, learning goals and objectives would be clearly set, supervision provided, the progress of students monitored, and credit given at the completion of the program.

The table that follows summarizes the phases to be worked through to bring these programs into operation. The time allocated for this preparation period is 15 months. Because each community is at a different stage in its development of on-the-land programs, it will be necessary to take a community-by-community approach. As noted above, this process of implementation has already begun in the community of Arctic Red River. Community consultations will be a critically important part of the design of the programs, but it is also proposed that a regional workshop be held to share ideas and approaches and develop regional guidelines for on-the-land programs.

Phase 1: Community Consultations and Program Design. In each of the four Delta communities, a similar process for community consultations and program design could be followed, although the specific groups might vary (including, for example, the Cultural Centre in Fort McPherson). First, initial meetings would take place with specific community groups (such as the Band and Settlement Councils, the LEA, the school teachers, the Elders, the Community Wildlife Officer, etc.), to discuss the proposal for In-school, Bush Camp, and Apprenticeship Programs. Next, research on other programs would take place, in order to learn from their experiences. With community feedback and research, program content options and proposals would be made, which would be finalized in a community workshop. Specific workplans for implementation would then be identified.

Phase 2: Regional Workshop. A regional workshop would be held to share community ideas and information, to evaluate existing programs and efforts, and to develop regional guidelines for On-the-land Programs.

Phase 3: Proposal Writing for Permanent Programs. Those communities that are ready for implementation would write their proposals for permanent programs.

Phase 4: Fund-raising for Permanent Programs. Time must be allowed for fund-raising for those programs. Start-up could take place 15 months after the initial phase of community consultations and program designs.

Financial and Staffing Requirements

Phase 1: Community Consultations and Program Design
Staffing: RRD and consultants from Gwich'in Cultural Centre
Finances: Travel, $10,000; Gwich'in fee, $40,000.

Phase 2: Regional Workshop
Staffing: RRD and Gwich'in Cultural Centre consultants
Finances: $5,000 (travel and expenses).

Phase 3: Proposal Writing
Staffing: RRD and Gwich'in Cultural Centre consultants
Finances: --

Phase 4: Fund-raising
Staffing: RRD and Gwich'in Cultural Centre consultants
Finances: --

Phase 5: Permanent Programs Start-up
Staffing: RRD and Gwich'in Cultural Centre
Finances: ? (unknown until prior phases are completed)

Total Financial Requirements: $55,000.

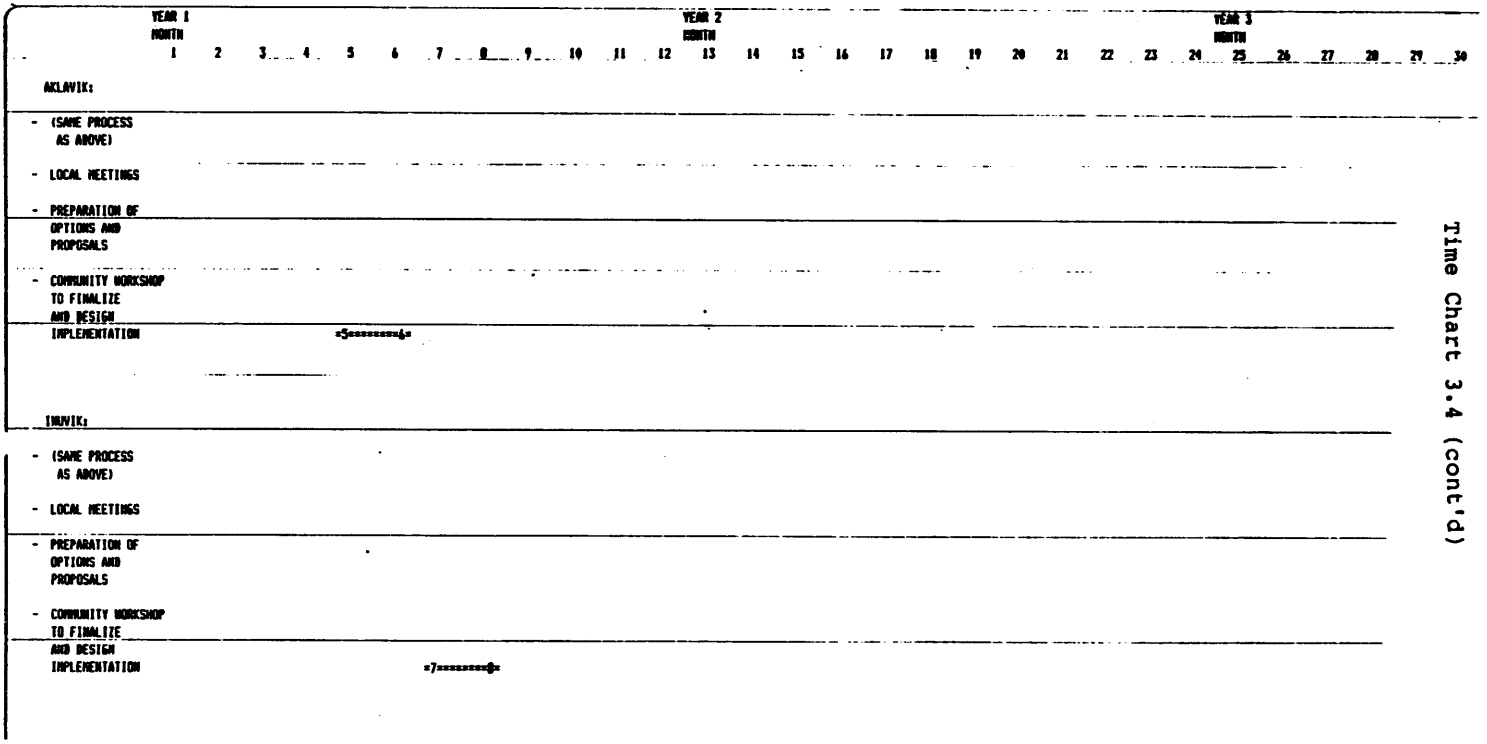
Jobs Created:
2 part-time jobs for a 10-14 month period. The RRD staff position is separately funded.

Permanent Program Requirements:
To be determined as programs are further refined; possibly one on-the-land Program Co-ordinator.

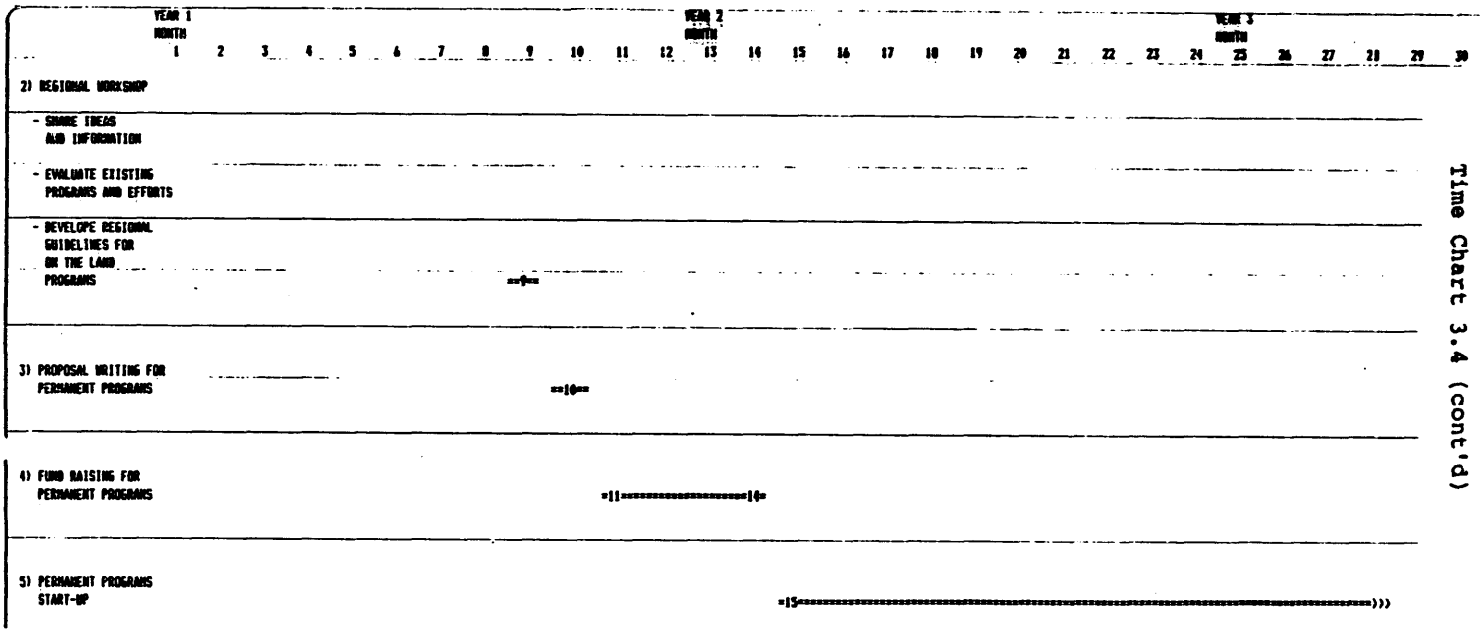
ON THE LAND PROGRAMS

	YEAR 1 MONTH 1	2	3	4	5	6	7	8	9	10	11	12	YEAR 2 MONTH 13	14	15	16	17	18	19	20	21	22	23	24	YEAR 3 MONTH 25	26	27	28	29	30
1) COMMUNITY CONSULTATIONS AND PROGRAM DESIGNS																														
FORT McPHERSON:																														
- MEETINGS WITH HTA, CULTURAL CENTRE, SETTLEMENT COUNCIL, LEA, SCHOOL TEACHERS, WILDLIFE OFFICER ETC.																														
- RESEARCH ON OTHER PROGRAMS																														
- PREPARATION OF PROGRAM CONTEXT OPTIONS AND PROPOSALS																														
- COMMUNITY WORKSHOP TO FINALIZE PROGRAM AND IMPLEMENTATION																														
	=1========2=																													
ARCTIC RED RIVER:																														
- (SAME PROCESS AS ABOVE)																														
- LOCAL MEETINGS																														
- PREPARATION OF OPTIONS AND PROPOSALS																														
- COMMUNITY WORKSHOP TO FINALIZE AND DESIGN IMPLEMENTATION			=3========4=																											

Time Chart 3.4



Time Chart 3.4 (cont'd)



Time Chart 3.4 (cont'd)

3.5 HTA Development Program

Good incentive/subsidy programs, training, marketing, and other programs proposed in this Development Plan all play a part in the support of the hunting and trapping sector. But in addition, in order to administer the implementation of many of the projects and programs, strong community Hunters and Trappers Associations (HTAs) are needed, and will enable the hunters and trappers to exercise their right to govern their own resource harvesting and management affairs.

The long-term goals of this HTA Development Program are:

1. To build strong community and regional HTAs so that Delta hunters and trappers may govern their own affairs and have a greater role in resource management policy and programs in the renewable resources sector.

2. To work in a co-operative fashion with the Department of Renewable Resources towards the eventual administration of some of the Department's responsibilities and programs, especially in the area of wildlife management.

The short-term goal of this Program, which is described in the accompanying chart, is to create a Secretary-manager position in each community to work with the hunters and trappers and local Wildlife Officers from the Department of Renewable Resources on all the issues dealt with by the HTA.

It is proposed that each community work out its own Terms of Reference for the Secretary-manager's position; these may include -- but not be limited to -- the following.

Reporting to the Executive and Board of the Community Hunters and Trappers Association, the Secretary-manager will be responsible for the following:

1. handling all correspondence and finances of the HTA, in conjunction with the Executive and the Board;

2. preparing agendas, taking minutes, and writing up reports of HTA Board and General Meetings;

3. managing the operations of the Supplies Warehouse on a part-time basis;

4. organizing the freighting of supplies to hunters and trappers in the bush, including co-ordinating schedules and transportation;

5. attending meetings with and/or on behalf of the Executive of the HTA;

6. being a liaison, as necessary, between the local Wildlife Officer and/or other government agencies and the community hunters and trappers;

7. taking any training required for the performance of these duties.

The chart that follows outlines the process for the development of a training package for the Secretary-manager's position over a one-year training period.

Phase 1: Community Consultations. Community consultations in the four Delta communities will take place with hunters and trappers and the HTAs to determine the long-term needs and goals of the HTAs, to establish the terms of reference for the Secretary-manager position, as well as training and other related needs.

Phase 2: Design of Training Package. A training package for the Secretary-manager's position will be developed in response to the needs identified in the community consultation phase.

Phase 3: Proposal Writing for Secretary-manager's Position. A proposal will be written for the Secretary-manager's position, including training, and for the long-term development of the HTAs, as determined in the preceding two phases.

Phase 4: Fund-raising. Time must be allocated for raising the necessary implementation funds.

Phase 5: On-the-job Training for Secretary-managers, and Start-up. The Secretary-managers will receive on-the-job training for a period of six months at the beginning of their employment period.

Financial and Staffing Requirements

Phase 1: Community Consultations
Staffing: RRD and local consultants, full-time, 4 months
Finances: Fees, $8,000; Travel, $5,000.

Phase 2: Design of Training Package
Staffing: RRD and local consultant, and Dept. of Renewable Resources personnel (community and regional)
Finances: $6,000 (fees).

Phase 3: Proposal Writing
Staffing: RRD and local consultant
Finances: $2,000 (fees).

Phase 4: Fund-raising
Staffing: RRD
Finances: --

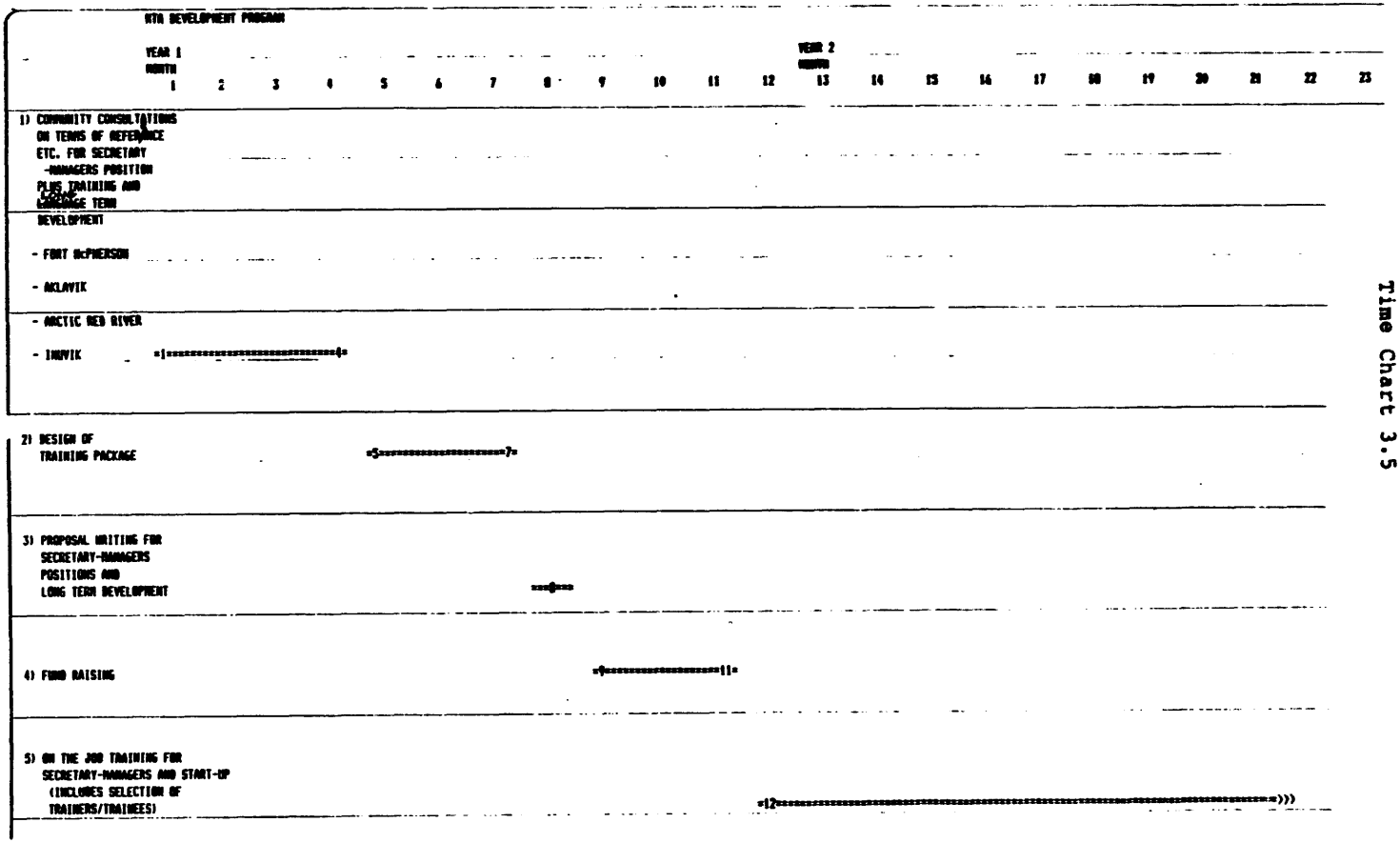
Phase 5: On-the-job Training for Secretary-managers
Staffing: Trainers and 4 Secretary-managers, 6 months
Finances: Trainer's fee, $20,000; Trainees, 4 x $2,000 x 6 months = $48,000.

Phase 6: Regional HTA Members Meeting
Staffing: 4 Secretary-managers, RRD, and Dept. of Renewable Resources personnel
Finances: $10,000 (travel).

Total Financial Requirements: $99,000.

Jobs Created:
Local consultant(s) for 8 months; four Secretary-manager positions.

Permanent Program Requirements:
To be determined as Terms of Reference for the four Secretary-managers positions are defined.



Time Chart 3.5

3.6 Trapper Training Program

With increasing penetration of the wage economy into the Delta region, with the change in settlement patterns from the bush to the communities, and with education of young people being focused decreasingly on the traditional way of life, hunting and trapping and living on the land in the informal sector have received little support relative to the formal sector of the wage economy. Corresponding to this lack of support has been a decline in the status and prestige of the hunters and trappers within the communities, such that their skills and experience are often neither recognized nor appreciated. In addition, the function of wildlife management has been increasingly separated from the function of harvesting, and has been taken over by the state through the territorial government's Department of Renewable Resources (see Peter Usher, "Devolution of Power in the Northwest Territories: Implications for Wildlife Management", in Native People and Renewable Resource Management, 1986).

Despite this general degradation of their skills and responsibilities, it is abundantly clear, as indicated by the survey results, that there is a very broad range and depth of skills necessary for successful hunting and trapping. When asked to enumerate these special skills, respondents listed approximately 25 specific areas, ranging from general survival skills to technical abilities in trap setting and pelt preparation to environmental and biological skills in reading weather and animal behaviour. (See Fee-Yee's report, Vol. 2, Appendix 3.7, q. 16.)

As noted in the analysis, most of these skills refer to a complex set of skills which can only be acquired through years of exhaustive study and experience. Therefore, there must be respect and recognition for the professionalism of the hunters and trappers, and greater support for their efforts.

In addition, of the 66% of the respondents who answered this question, an overwhelming majority (96%) indicated that they wanted to produce more. Given the vital economic importance, as well as the social and cultural contributions, of hunting and trapping, training and upgrading programs for hunters and trappers are of vital priority. Government support for such programs must be upgraded to equal existing support levels for basic upgrading and job market-oriented skills.

It is clear from the survey responses that, while not extensively offered in the Delta communities, trapper training courses are perceived as worthwhile. Of the three people interviewed who had taken part in a trapper education program, 100% felt that the program was good. In addition, a substantial majority of respondents (74%) gave an unqualified "yes" to the question of whether a trapper education program would be useful. We interpret this response as supporting those programs currently offered by the Department of Renewable Resources, as well as providing direction for some areas to be included in these programs. Some of the areas that trappers would like to see training in are: (1) grading; (2) pelt preparation; (3) better trapping methods; (4) marketing; (5) taxation; (6) strategy to deal with anti-trapping groups; (7) mechanics; (8) business management.

Trappers also clearly supported the development of on-the-land programs for young people.

It is proposed, as described in the table that follows, that the Regional Council have input into the design of a Trapper Training Program, based on the information on training interests indicated in the hunter/trapper interviews. The follow-up required would be for community trapper representatives to work with community Wildlife Officers, Department of Renewable Resources Conservation Education Officer and Regional Biologist and/or Fur Specialist on workshop design and implementation, which could take place over a six-month period. These consultations would consist of (1) identifying priority interests for training from the surveys, and perhaps additional surveying (as deemed necessary) with interested hunters and trappers; (2) a review of other training programs; and (3) the design of the training programs to be delivered in the Delta as well as the work plans for implementation.

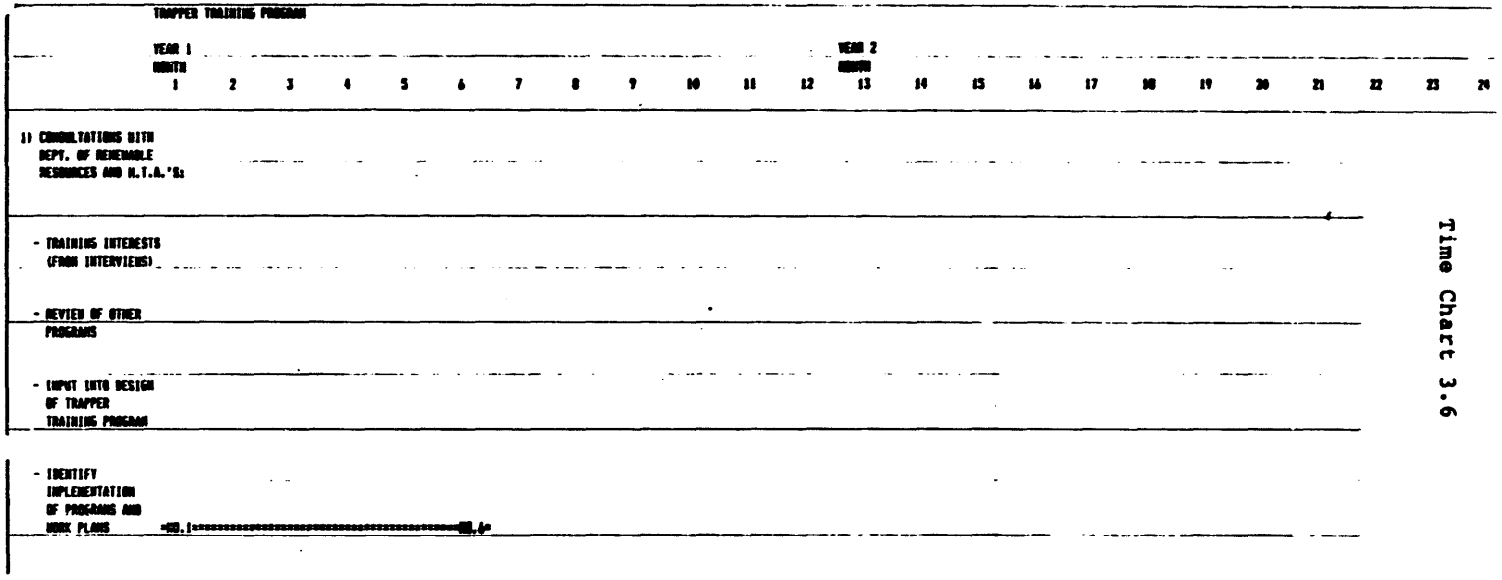
Financial and Staffing Requirements

Phase 1: Consultations with Dept. of Renewable Resources and HTAs
Staffing: RRD and local consultant
Finances: Consultant fees, $10,000; travel, $5,000.

Total Financial Requirements: $15,000.

Jobs Created: Local consultant for 4 months.

Permanent Program Requirements:
To be determined in the design of the Trapper Training Programs; possibly one Trapper Training Co-ordinator.



Time Chart 3.6

3.7 Habitat Management and Conservation Program

Fur-bearing animals are extremely important to the culture, economy, and ecology of the Mackenzie Delta area, and played a vital role in the history and development of the region. The commercial value of fur pelts has brought a great deal of money into the communities over the years, providing an important source of -- in some cases the only -- cash income to many families. Most economists tend to overlook the total value that the fur industry brings into the communities today and place far greater emphasis on wage employment and government transfer payments in the overall economy of the Delta. Most people would be surprised to learn that, in 1984-85, the sale of furs brought a total of $511,762 into Inuvik, Aklavik, Arctic Red River, and Fort McPherson alone.

The commercial value is only a part of what makes the fur industry so important to people in the Delta. The meat and other edible products from some of the species hunted for their furs (such as beaver and muskrat) are very much sought after in their own right, and provide much-needed sources of protein and other important nutrients for many people who do not have adequate supplies of cash to ensure an adequate diet of store-bought food for themselves and their families.

In addition, there are social and cultural aspects of hunting and trapping to which it is impossible to attach a dollar value. But the on-the-land way of life based on traditional forms of social organization and values is particularly important to many Native people in the Delta because it provides them and their families an opportunity to express and develop their Native values, languages, and lifestyles in a way that reinforces their identity and gives them strength.

Finally, fur bearers are also important because their life cycle activities maintain and enhance the fragile ecology and balance of nature in an environmentally sensitive area.

From an examination of the files on fur bearers in the Inuvik office of the Department of Renewable Resources, and from conversations with local trappers and community Wildlife Officers, it appears that efforts to develop some sort of management and conservation programs were focussed in the years from the late 1960s to the early or mid-1970s, and since then, for whatever reasons, have fallen off to virtually nothing. Early studies during these years dealt with beaver populations, the effects of seismic activities on muskrats,

etc.; many were done at the instigation of the Mackenzie Valley Pipeline Inquiry and from the perspective of mitigating industrial activity on the species population, rather than from the perspective of developing the species for the hunters and trappers and for enhancing the health and productivity of the populations.

Today, trappers and hunters express concern about the decrease in population of beavers and muskrats in the Delta, and about the decline in the quality of the environment for these and some other species, including birds and fish. If the hunters' and trappers' reports of declining populations are accurate, then their assessments are also reflected in the declining volumes of these species being traded commercially, according to the fur statistics of the Department of Renewable Resources. Why has this decline taken place? Some plausible explanations include:

1. decreasing trapper effort: there simply aren't the same numbers of trappers in the bush any more, and/or they aren't catching anywhere near what they used to harvest;

2. fluctuating water levels in the Delta, due to up-river dam activity, are wreaking havoc with the environment and wiping out beaver and muskrat populations;

3. local construction activity (oil and gas-related) is changing water levels, silting patterns, etc., and having a similarly negative impact on the environment;

4. a decrease in beaver activity, because of the reasons noted above, has led to a decrease in muskrat activity, because of the biological relationship between the two species.

Clearly there are problems with the declining quality of the Delta habitat that urgently need to be addressed. Resources need to be put into this area, both in research programs and for remedial action. When the financial resources put into ungulate and marine mammal research are compared with those for fur-bearers, it is very clear that the priority has not been with fur-bearers, despite their crucial importance to the people of the Delta specifically and to the whole Mackenzie River Valley region in general.

Follow-up Required

Declining habitat quality and lack of resources for fur-bearer research and environmental enhancement have been identified as key problems that must be addressed. It is clear that specialist resources need to be put into the development and management of fur-bearing species in the Mackenzie Delta.

A positive first step in addressing these problems would be the placement of a Fur Specialist in the Inuvik Region office of the Department of Renewable Resources, with adequate resources to work on these problems with local hunters and trappers and their community associations.

The second step would be the development of a habitat management and conservation program, oriented particularly towards the beaver and muskrat species in the Delta. The outline below elaborates on the table that follows.

Phase 1: Discussion with the Joint Management Committee. The development of a habitat management and conservation program should be put on the agenda of the Joint Management Committee fairly early in its formation and first meetings. The Regional Council should encourage the Joint Committee to give a mandate to the Department of Renewable Resources to work in conjunction with the Dene/Metis in the region to develop a habitat management and conservation program over the long term.

Phase 2: Consultation with all Groups to make Recommendations for a Habitat Management Program. These consultations should take place with the Hunters and Trappers Associations, the Department of Renewable Resources personnel at community, regional, and headquarters levels, and consultant fur specialists. Special recognition should be given to the historical experience and expertise of individuals such as John A. Snowshoe in Fort McPherson and Bruce Stephenson in Renewable Resources in Yellowknife, as well as biologists such as Robert A. Ruttan and Harvey Jessop of the Yukon Territories, who have done work in this field.

Phase 3: Program Development. Those charged with developing the program (as decided by the Joint Management Committee) will put together a five-year experimental habitat management and conservation program, based on the recommendations and technical expertise gathered in the first two phases of the work.

Phase 4: Implementation -- Five-Year Experimental Program. The program will be implemented with the co-operation and involvement of individual hunters and trappers, the local Hunters and Trappers Associations, Department of Renewable Resources personnel, etc.

Phase 5: Evaluation. The program will be closely monitored and evaluated according to pre-determined criteria and measures. Recommendations will be made for the establishment of a permanent habitat management and conservation program if deemed a necessity at the end of the five-year experimental period.

Financial and Staffing Requirements

Phase 1: Discussions with Joint Management Committee
Staffing: MDRC Executive, RRD
Finances: --

Phase 2: Consultants with HTAs, Dept. of Renewable Resources, etc.
Staffing: Fur biologist, RRD
Finances: Fees, $21,000; travel, $5,000.

Phase 3: Program Development
Staffing: Fur biologist with 4 local specialists/HTAs
Finances: $20,000 (fees).

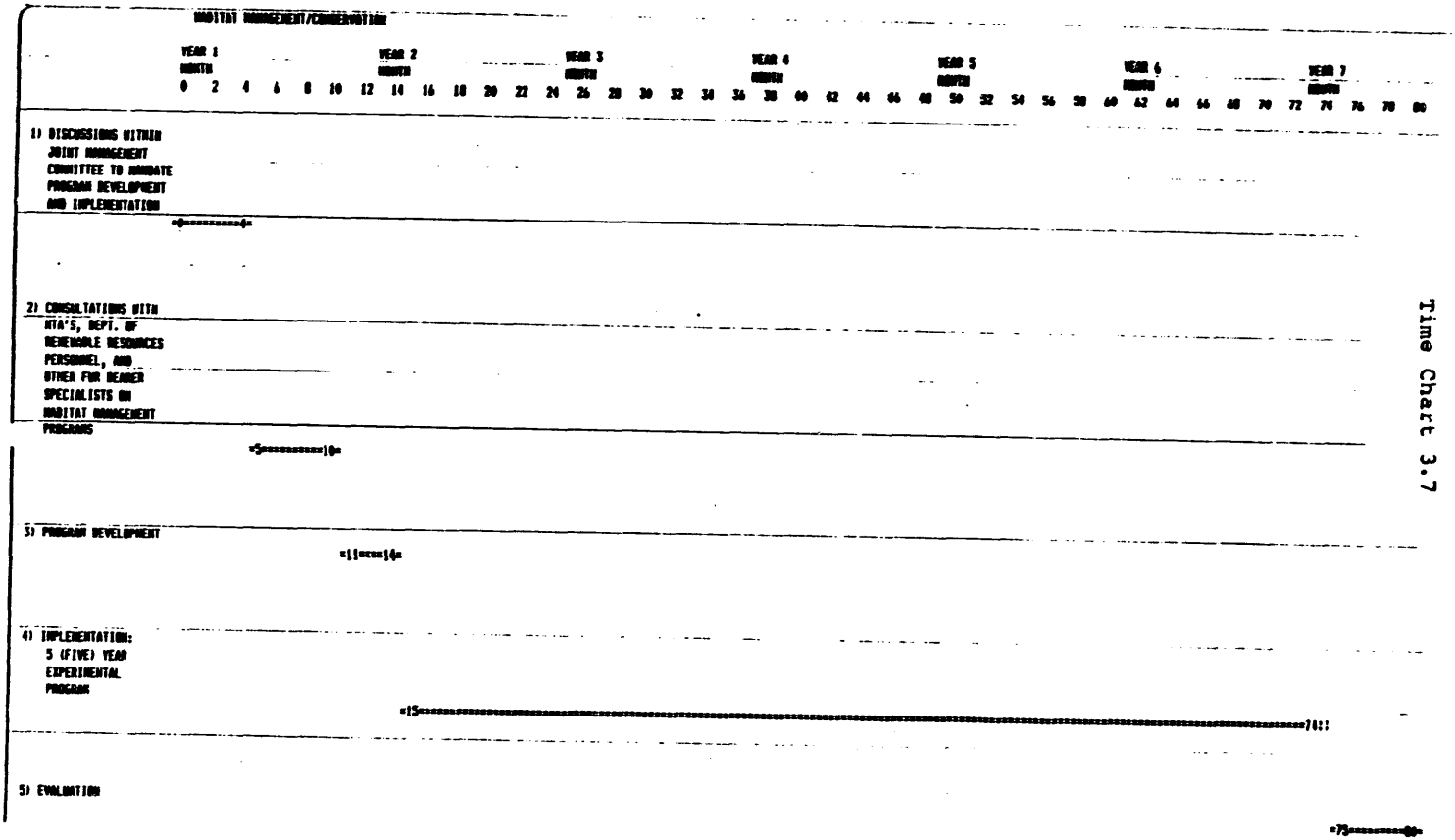
Phase 4: Five-Year Experimental Program Implementation
Staffing: Fur biologist, 4 local specialists (one per community)
Finances: Fees and travel to be determined in the Program Development Phase

Phase 5: Evaluation
Staffing: Fur biologists, local specialists, Joint Management Committee
Finances: $40,000 (fees and travel).

Total Financial Requirements: $86,000.

Jobs Created:
Fur Biologist (non-local); four local trapper/specialists (part-time during program development, and full-time, seasonal, for five years during the experimental program).

Permanent Program Requirements:
To be determined during Evaluation of the 5-Year Experimental Program.



Time Chart 3.7

4. CRAFTS

Several crucial problems were identified in the extensive interviews with women crafts producers during the winter and spring of 1984/85.

First, the cash outlay required for production materials is increasing. Second, women in the outlying communities (other than Inuvik) have difficulty in finding a steady and reasonably-priced supply of materials in their own communities; moreover, in these outlying communities there is no adequate marketing system giving producers regular and sustained access to buyers. (Obviously this is not a problem in Inuvik.) Squeezed from both sides -- between rising materials costs and marketing problems -- producers can make little or no profit from crafts work, and therefore are largely dependent on other sources of income (usually from a husband or other family member) for the cash they need to reinvest in crafts production.

Figure 2 graphically illustrates this cost/price squeeze for Delta crafts producers. For example, although the total cost of materials for mukluks and moccasins is less than the average price paid the producer, the "wage" (in terms of net income per hour worked) is extremely low -- $2.44 per hour for mukluks and $0.78 per hour for moccasins -- and there is no cash return aside from these labour costs. If, on the other hand, we consider that women are not "paid" for their labour, the cash return (after material costs) is 38% of the price they receive for mukluks and 21% of the price for moccasins.

The "squeeze" for producers of men's beaver mitts is tighter: the total materials cost is 5% more than the average price paid to the producer, who is therefore in a deficit situation, unable to even recover the cost of materials, let alone a return for her labour.

Crafts producers made a number of suggestions for improving this situation.

To deal with the high cost of materials and the problems of material supply in the communities, respondents recommended such measures as bulk buying through local craft shops in order to get lower prices; establishing local sewing shops; setting up local tanning and hide processing; and getting more supplies in the craft shops.

To deal with existing marketing problems, especially those of producers in the outlying communities, suggestions were made for the standardization of prices, the establishment of a central outlet, and the development of out-of-town (i.e., regional, territorial, and/or national) sales.

It is undoubtedly because of the "squeeze" that, in the Delta, most craft items are produced for home and family use. In Aklavik and Fort McPherson, 62-93% of respondents indicated that at least half of their crafts were kept for family use (see Figure 3). In Inuvik, however, only 10% produced mainly for family use, and all of those interviewed in Arctic Red River indicated that they produced mainly for sale. (However, the sample size from Arctic Red River was small, and the findings should be treated with caution.) This picture implies that there may be room -- on the production side at least -- for greater commercial development of Delta crafts; but it is equally clear that such commercialization will probably not take place unless the fundamental economic problems -- cost and accessibility of materials, and low prices to producers -- are dealt with to the satisfaction of the craftspeople themselves.

Women's work is very important to the family unit; for instance, women's labour in the making of clothing for family members saves a great deal of household cash that would otherwise have to be spent at stores. At the same time that women's work in crafts production contributes to the family's income and well-being, cash income from other family members contributes to the continuation of crafts production inside the home, whether for household use or for cash sale. For example, when asked about other jobs or sources of income only 26% of the sample indicated that they depend on craft production as their sole source of income. They listed such other sources of income as their own jobs, husband's or family income, transfer payments, trapping income, and baby-sitting. This dependence on other sources of income is demonstrated by the fact that 69% of the respondents indicated that they do not perceive crafts production as a sole source of income. Just as with trapping and hunting, crafts production should be seen as an integral part of the family unit of production, supporting and in turn receiving input and support from other family members and from both cash from the wage economy and subsistence products (fur and hides) from the bush. We feel these surveys illustrate the interdependence of members and production within this family-based unit of production. Women's work in crafts also passes on traditional skills to the younger women, and in this way helps to reinforce the traditional values and culture.

Figure 2

Crafts Producers Costs and Profit

On an hourly basis for 3 items

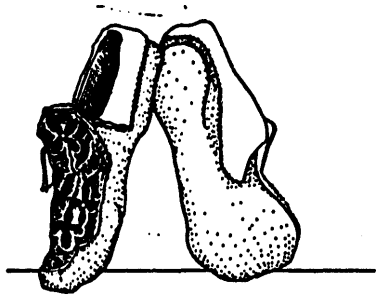
1) Mukluks (moosehide bottom, stroud top, beaver trim, beaded uppers)

Cost breakdown:	hide	$25.00
	beads/needles	7.00
	sinew	5.00
	duffle	20.00
	thread	2.00
	trim	4.00
	wool (strings)	4.00
	stroud	17.00
Total cost of materials		84.00
Average price paid to producer:		160.00
Less: materials		84.00
Profit margin		76.00
Estimated production time: 25 hours		
Profit on an hourly basis		3.04

2) Beaver mitts (men's with moosehide palms)

Cost breakdown:	pelts (2)	$75.00
	hide	10.00
	sinew	5.00
	wool	5.00
	needles	2.00
Total cost of materials		97.00
Average price paid to producer:		92.50
Less: materials		97.00
Profit margin		-4.50
Estimated production time: 10 hours		
Profit on an hourly basis		0.00

3) Moccasins (men's - moosehide with beaded uppers and beaver trim)



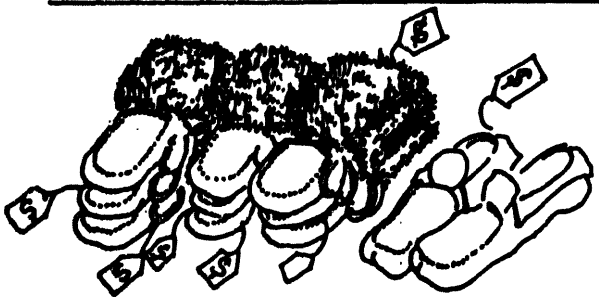
Cost breakdown:	hide	$40.00
	beads/needles	7.00
	stroud (uppers)	10.00
	sinew	2.50
Total cost of materials		59.50
Average price paid to producer:		75.00
Less: materials		59.50
Profit margin		15.50
Estimated production time: 20 hours		
Profit on an hourly basis		.78

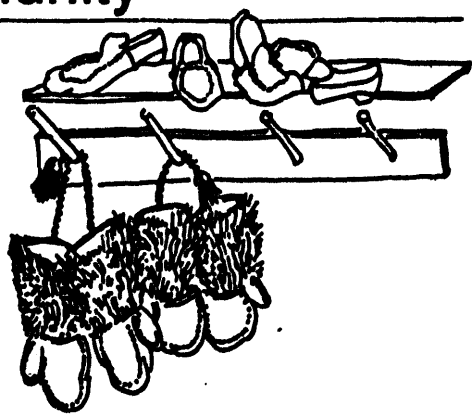
Notes: 1. Cost breakdowns and time estimates compiled from survey results.
2. Prices based on information from N.W.T. Native Woman's Arts and Crafts Program.

from: Fee-Yee Consulting Limited

Figure 3

Commercial & Domestic Use of Crafts by Community





% Commercial Sales						% Domestic Use					
0%	100%	10%	90%	25%	75%	50%	50%	70%	30%	75%	25%	90%	10%	100%	0%
Ft. McPherson															
1		7		1		4		2		1		2		3	
Aklavik															
2		9				2						1			
Arctic Red River															
												1		1	
Inuvik															
				1								5		2	

from: Fee-Yee Consulting Limited

The picture of craft producers that emerges is that of a highly skilled group of professionals possessing a broad range of skills, such as drawing and cutting patterns, materials preparation, beading, embroidery, making delta braid, etc. In addition, 51% of those interviewed had worked at the Aklavik Fur Shop, the Fort McPherson Canvas and Tent Shop, the Inuvik Sewing Centre, or the Tuk Fur Shop, indicating a fairly extensive industrial sewing base of experience outside the home, including some on-the-job training at those sewing centres. For many of the older women interviewed these specific sewing-related skills are backed up by bush skills such as fur and hide skinning, preparation, and tanning, most of which were learned from parents or relatives in the bush as children or teenagers. Despite this solid skill base only 21% of respondents had actually taken a specific crafts training program, although an overwhelming majority (86%) indicated they would like to take one. Interest in and suggestions for skills training ranging from pattern-making, sewing, and hides tanning to business management and pricing point the direction for the content of future training programs for crafts producers themselves.

In addition, many women, particularly the elderly, expressed grave concern over the loss of traditional skills and knowledge of tanning and processing caribou and moose hides. It has become clear that a training program in this area is urgently needed for young people before the skills are seriously eroded or lost entirely.

Analysis of the crafts questionnaires in Fee Yee's report (Appendix 8.4 of this volume) spells out in greater detail the problems faced by the producers, identifies further research needs, and makes recommendations on how to deal with these problems. The following crafts projects and programs are designed to respond to these problems and so to strengthen the crafts industry for the benefit of the producers themseves. It is hoped that they will also help to strengthen and reinforce the family-based unit of production in the Delta communities.

4.1 Community and Regional Organization for Delta Crafts Production and Marketing

One of the major problems faced by crafts producers is the lack of a reasonably-priced supply of crafts materials in the communities; in this respect producers are in the same situation as the hunters and trappers. In regard to marketing the problem is a lack of crafts shops organized and controlled by the producers themselves. Such an outlet for crafts sale could be established in Arctic Red River, and the existing shop in Aklavik could be expanded and strengthened. A third and related problem is the lack of community facilities and organization for collection, tanning, and distribution of caribou and moose hides. Although the skills for processing the hides still exist, getting a steady supply of hides has been a problem in the communities, and many sewers are forced to pay extremely high prices in the Inuvik market (for example, $500 for a large tanned moose hide), thus further eroding their already narrow profit margins.

One question which has not yet been resolved, and which needs much further consultation with producers in their communities, is the relationship of production in the home, a "cottage craft" type of industry, to production in a central facility such as a crafts shop or sewing centre. We do not automatically assume that one mode is preferable to the other; we note, however, that when asked whether they preferred sewing at home or at a craft centre 76% of the respondents indicated they preferred sewing at home. From our knowledge of women's role in the household unit of production and the variety of tasks confronting them at any given time, we know that crafts production is something that must be fitted around other work and responsibilities in the home (such as cooking, child care, etc.) and adjusted to seasonal variations in productive activities as well. We are also aware of a degree of specialization of tasks among producers that might lend itself quite well to an efficient cottage craft industry mode of organization: for instance, a mother sewing hides and a daughter beading uppers for moccasins. The interviews did not provide much information about whether women currently gather to sit down and sew together; accordingly, room for investigating various options on this matter is built into the feasibility studies for the Aklavik and Arctic Red River Craft Shops and for the hides collection, tanning, and distributioon program.

The following four projects are designed to address these inter-related problems, and to develop and strengthen Delta crafts production and marketing at both the community and the

regional levels. The following outline should be read in conjunction with the accompanying table.

Follow-up Required

Phase 1: Pre-Feasibility for All Four Feasibility Studies. Community-based research has been done to identify problems from the producers' perspective and some possible solutions have been put forward to address these problems. The next step is to develop specific concrete proposals for the following four projects and to submit them to and lobby for them with funding agencies such as Special ARDA, EDA/ERDA, and/or GNWT Department of Economic Development's Crafts Division.

Phase 2: Feasibility Study for Craft Supplies Warehouse. This feasibility study would take place in six steps:

- Costing of supplies: from our community research we are aware of what supplies are needed in general by the producers. At this stage, information on costs, suppliers in the south, transportation, etc., would be gathered and analyzed.

- Distribution system: with the above information on costs and transportation and with producers' input, a central location point and distribution system would be decided upon.

- Organizational options: options for the type of ownership would be identified at this stage, ranging perhaps from producers' cooperatives or community/regional economic development corporations to individual private ownership. Discussion materials on the pros and cons of each option would be prepared for community consultations.

- Management Options: options for the form of management would be identified here and prepared for the community consultations.

- Community Consultations: with the materials prepared above, community consultations and decisions would be taken at this stage.

- Proposal for Warehouse: with the decisions and information gathered above, a detailed business plan for a crafts supplies warehouse and distribution system would be written and submitted to funding agencies.

Phase 3: Feasibility Study for Expanded Aklavik Crafts Shop. With input and decision-making from producers in Aklavik, this feasibility study would take place in five steps:

- Ownership Options: options for the type of ownership (whether private, producer-owned, community-development corporation, etc.) would be prepared for discussion within the community.

- Operation/Management Options: options for the form of operation/management would be prepared here. These could include cottage-craft-style of organization or production at a central location, or some combination of the two forms.

- Relationship to Supplies Warehouse/Central Distribution System: if the supplies warehouse is organized on a regional basis with only one facility based in Inuvik, for instance, then this step would work out how supplies would be distributed and transported to Aklavik from that central point, and the appropriate accounting and financial systems to be established.

- Community Consultation: with the information gathered and prepared above, community consultations with the Aklavik producers would take place at this step to determine the ownership, operations/management, etc., systems to be put in place for the expanded Aklavik Crafts Shop.

- Proposal for Expanded Crafts Shop: with the information and decisions made in the previous stages, a detailed business plan for the expanded Aklavik Crafts Shop would be developed and submitted to various funding agencies.

Phase 4: Feasibility Study for Opening Arctic Red River Crafts Shop. With input and decision-making from the producers and Band in Arctic Red River, this feasibility study would be accomplished in five steps:

- Location and Operations/Management: the location of a crafts shop (whether in the community itself or down by the hghway/ferry landing) would be identified here, as well as options for the form of organization (whether home production on the cottage craft model or at a central assembly point). Materials for community consultation on

these issues would be prepared as necessary.

- o Ownership Options: options for the type of ownership would be identified at this step, and materials prepared for community consultation.

- o Relationship to Central Distribution System: if the supplies warehouse is organized on a regional basis with only one facility based in Inuvik, for instance, then this step would work out how supplies would be distributed and transported to Arctic Red River from that central point, and the appropriate accounting and financial systems to be established.

- o Community Consultation: with the information gathered above and the materials prepared for discussion, community consultations with the producers and Band in Arctic Red River would take place at this step to determine the appropriate ownership, operations/management, etc., systems to be put in place for the opening of the Arctic Red River Crafts Shop.

- o Proposal for Crafts Shop: a detailed business plan and proposal for the opening of the shop would be developed and submitted to various funding agencies.

Phase 5: Feasibility Study for Caribou and Moose Hides Collection, Tanning, and Distribution Program. With input from various community individuals and groups, the feasibility study for this hides program would be accomplished in five steps:

- o Hides Collection program: Hides could be collected for local Delta producers in two ways. The first would be to establish an incentive for hunters to bring home caribou and moose hides to their communities. Rather than being a financial incentive, this could take the form of a special prize or feast for the hunter(s) who bring in the most hides, or (as in Ontario) a cap for participation in the program. Some incentive or reward is needed to encourage hunters to bring hides home to their communities.

A second collection option would be a territory-wide program similar to that of Ontario's Ministry of Natural Resources, which, through its District Offices, collects hides from hunters all across the province and re-distributes them, through the provincial Native Arts and Crafts Association, to native crafts producers throughout the province. The options for hides collection programs could be designed during this phase, with consultations among crafts producers, HTAs, and the Department of Renewable Resources.

- Tanning Operation: design of a hides tannery would be developed during this phase, with options for both regional and community-based operations. Detailed business plans, financial projections, and recommendations for ownership and management would be outlined.

- Distribution System: Development of a distribution system for the tanned hides to put them into the hands of local producers. The supplies warehouse and the Community Crafts Shop would probably be involved in this distribution system.

- Community Consultations: These consultations would take place with materials prepared during the preceding phases. Groups to be consulted would include the Hunters and Trappers Associations, the Community Crafts Shops, the Supplies Warehouse, and individuals with tanning/hides-processing expertise.

- Proposal for Hides Program: With the information and decisions made in the above steps, a detailed outline of all aspects of the Hides Program would be developed and submitted to various funding agencies.

Financial and Staffing Requirements

Phase 1: Pre-Feasibility for all Four Feasibility Studies
Staffing: Consultant
Finances: Fees, $2,000

Phase 2: Feasibility Study, Craft Supplies Warehouse
Staffing: Consultant with Renewable Resources Director
Finances: Fees, $8,000; Travel, $3,000

Phase 3: Feasibility Study, Expanded Aklavik Crafts Shop
Staffing: Consultant with Renewable Resources Director
Finances: Fees, $8,000; Travel, $2,000

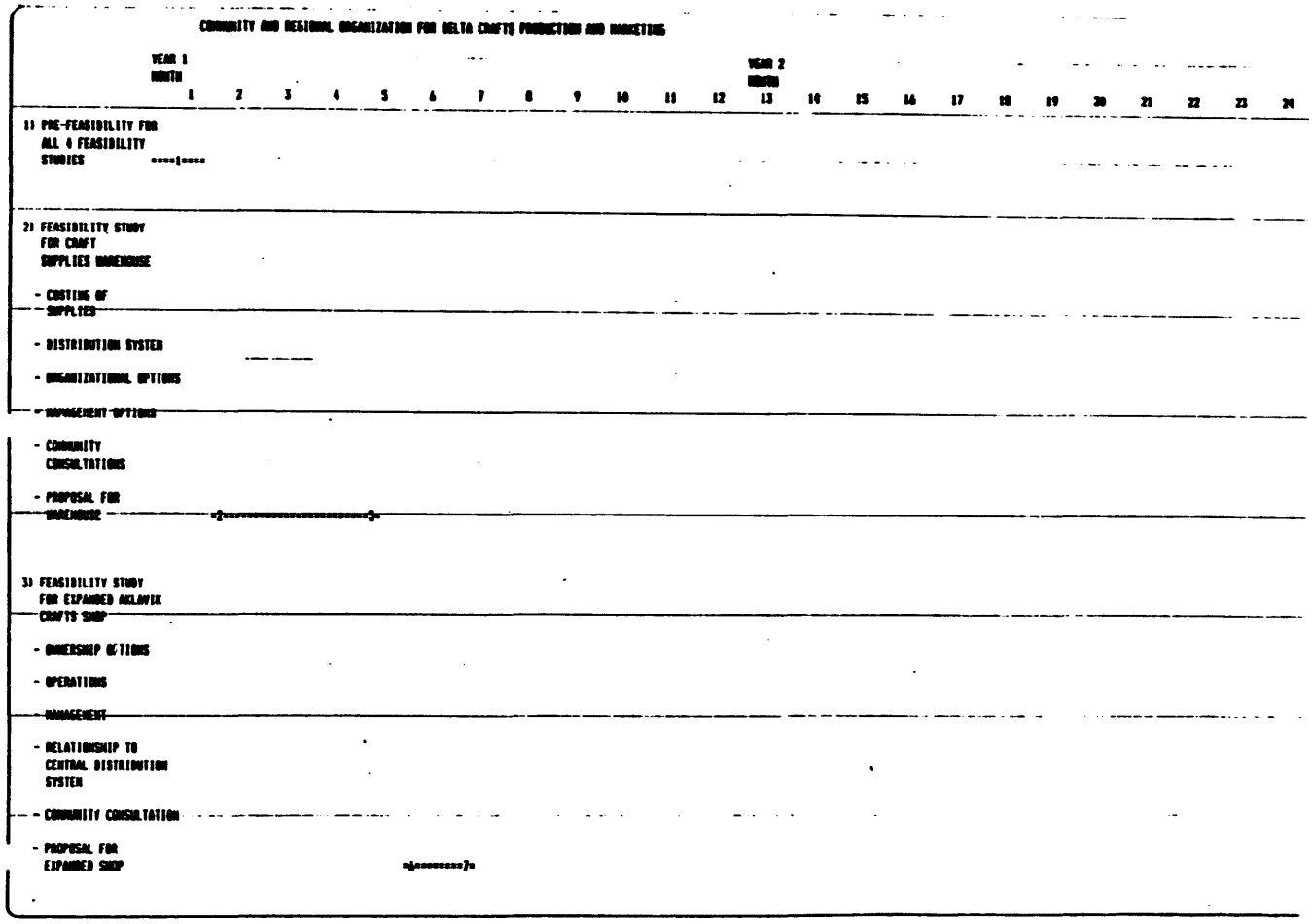
Phase 4: Feasibility Study, Opening of Arctic Red River Crafts Shop
Staffing: Consultant with Renewable Resources Director
Finances: Fees, $8,000; Travel, $2,000

Phase 5: Feasibility Study, Caribou and Moose Hides Collection, Tanning, and Distribution Program
Staffing: Consultant with Renewable Resources Director
Finances: Fees, $24,000; Travel, $2,000

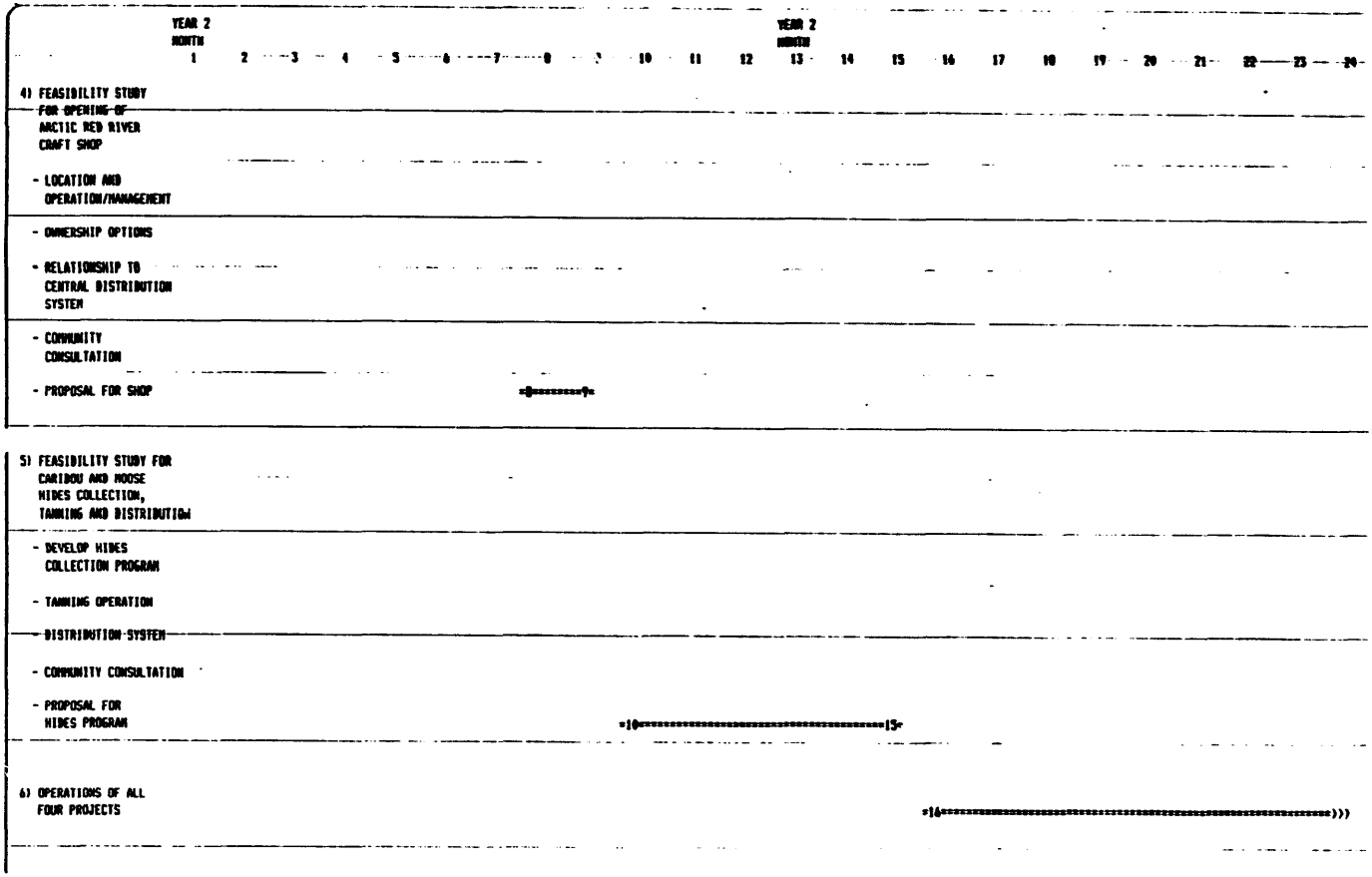
Financial Requirements: $59,000

Jobs Created: Short-term consultancies only.

Permanent Program Requirements: To be determined by feasibility studies -- possibly 1 Warehouse Manager (full-time), 3 Craft Shop Managers (part-time), and 1 Hides Program Coordinator.



Time Chart 4.1



Time Chart 4.1 (cont'd)

4.2 Crafts Development Program for Producers

The crafts producers interviewed showed definite interest in taking part in training programs and in seeing that younger people receive training in crafts production. They identified as priorities the teaching of skills in hides and skins tanning and preparation techniques. While most crafts production now takes place for home use, there was general interest in expanding crafts production and in using it as a steady source of income. There is a need, therefore, to address the haphazard pricing policy for Delta crafts, while maintaining an emphasis on high quality in materials and production.

The Crafts Development Program outlined here has been designed to respond to producers' needs as identified in the interviews. The goals of such a program might include:

1. Long-Term Goals: To increase Delta crafts production and sales within the region and in the south. To increase the income of Delta crafts producers.

2. Short-Term Goals: To develop crafts skills in seven major areas so that long-term improvements in income can be made. These seven areas include:

* Quality control in production
* New designs
* Marketing:
  - community marketing through local craft shops
  - regional marketing through producer representatives, local buyers (Ulu Foods, Northern Images, Place of Man, Rita's, etc.)
  - territorial/southern Canadian/international marketing through Canadian Council for Native Business, Native Women's Arts and Crafts Association, private wholesalers and retailers.
* Pricing
* Small Business Management:
  - for individuals;
  - for Crafts Shop managers.
* Organizing to Buy Bulk Supplies:
  - suppliers;
  - community needs;
  - appropriate community/regional organization.

* Traditional Tanning and Sewing Techniques:
  - tanning moose, caribou, beaver, wolf, etc.;
  - making and using babiche, etc.

The paragraphs below explain the development of the proposed Crafts Development Program and its initial implementation on a pilot project basis; they should be read in conjunction with the following table.

Follow-up Required

The design and implementation of the Crafts Development Program could be accomplished in six phases:

Phase 1: Program Proposal Development. Some time must be put into the development in greater detail of the proposal for this program, according to the general outline identified here.

Phase 2: Fund-Raising. Fund-raising efforts for the remaining phases directed at various agencies such as Special ARDA, EDA/ERDA, and the Crafts Division of the Department of Economic Development and Tourism.

Phase 3: Course Planning. Interviews with producers yielded good information about their interests in training programs. These suggestions must be prioritized, and local producers should be involved (on a community-by-community basis) in the program design. Background research on previous courses offered, and on previous attempts to standardize prices (particularly for the Delta region), is also needed.

The next step is to identify trainers in the seven subject areas outlined above. Whenever possible the skills and expertise of community producers should be drawn upon, and supplemented where necessary by consultants from outside the Delta.

Once this is done, the next tasks are to design workshops/courses and to examine the logistics of running two courses: one a series of short-term workshops, and one a longer-term, more in-depth course.

Phase 4: Pilot Course Implementation. There are two options for the implementation of the pilot courses. Under either option, the courses will be run in one community only as

a pilot project, and evaluated with the participants at the end. The first option is a series of short-term workshops on each of the seven subject areas. The second option, a longer-term program, allows more in-depth teaching and participation in the same seven subject areas.

Phase 5: Evaluation of Pilot Courses with Trainers and Re-Design As Necessary. This phase involves bringing the trainers together to share the feedback from the participants in both their courses. Time would be allocated for modifying course designs, day-to-day workplans, and subject areas. During this phase the necessary proposals for implementing the program on a permanent basis (if demand warrants) would be drafted.

Phase 6: Fund-Raising for Permanent Programs. Once the permanent program proposal is designed, fund-raising would take place.

Financial and Staffing Requirements

Phase 1: Program Proposal Development
Staffing: Renewable Resources Director

Phase 2: Fund-Raising
Staffing: Renewable Resources Director

Phase 3: Course Planning
Staffing: Renewable Resources Director, plus six Local and Territorial Consultants
Finances: Fees, $12,000; Travel, $5,000

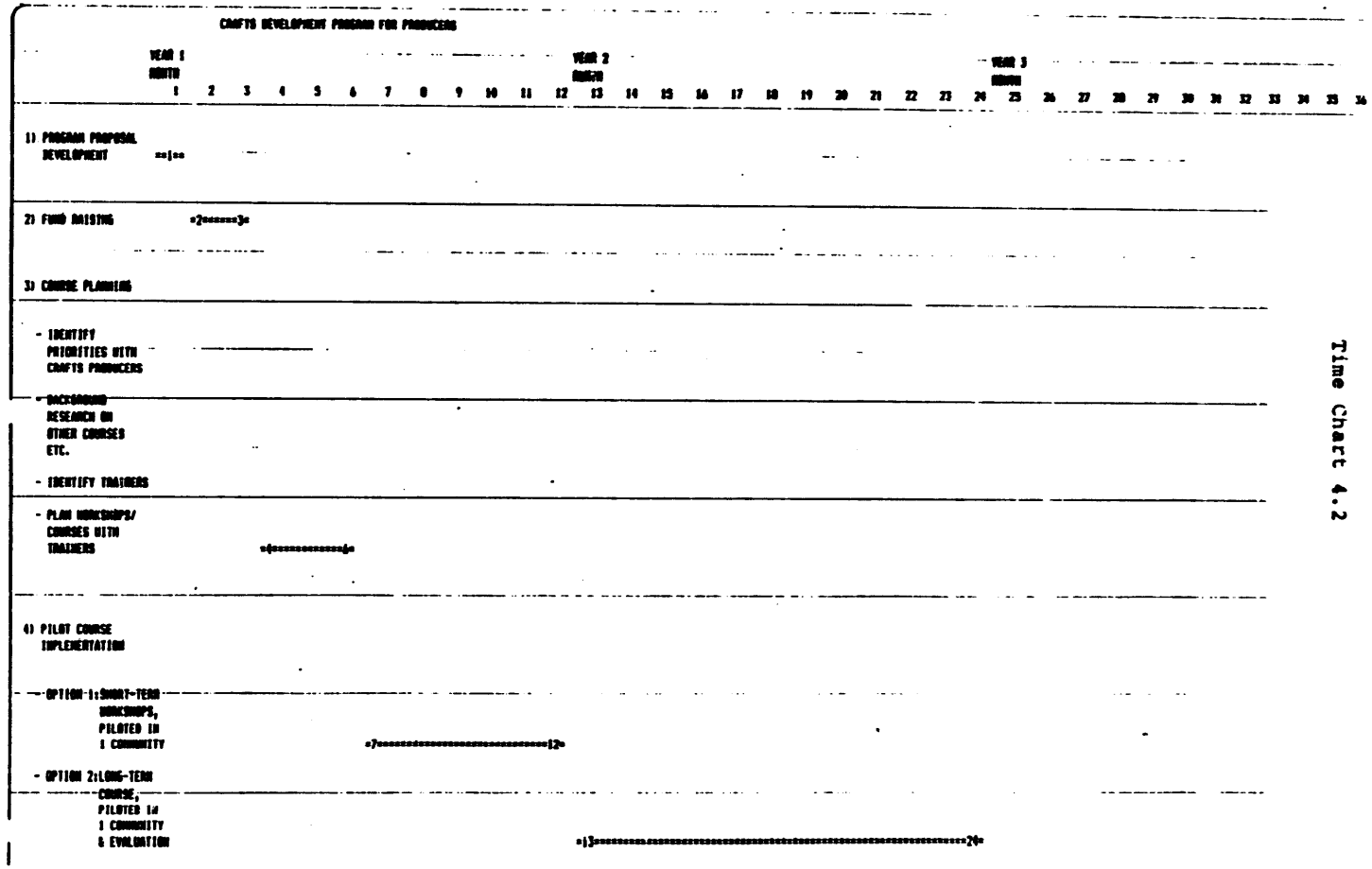
Phase 4: Pilot Course Implementation (both options)
Staffing: Six Local and Territorial Trainers, and Renewable Resources Director
Finances: Fees, $45,000; Travel, $10,000

Implementation, Short and Long-Term Courses
Staffing: Six Trainers and Renewable Resources Director
Finances: to be determined in redesigned program

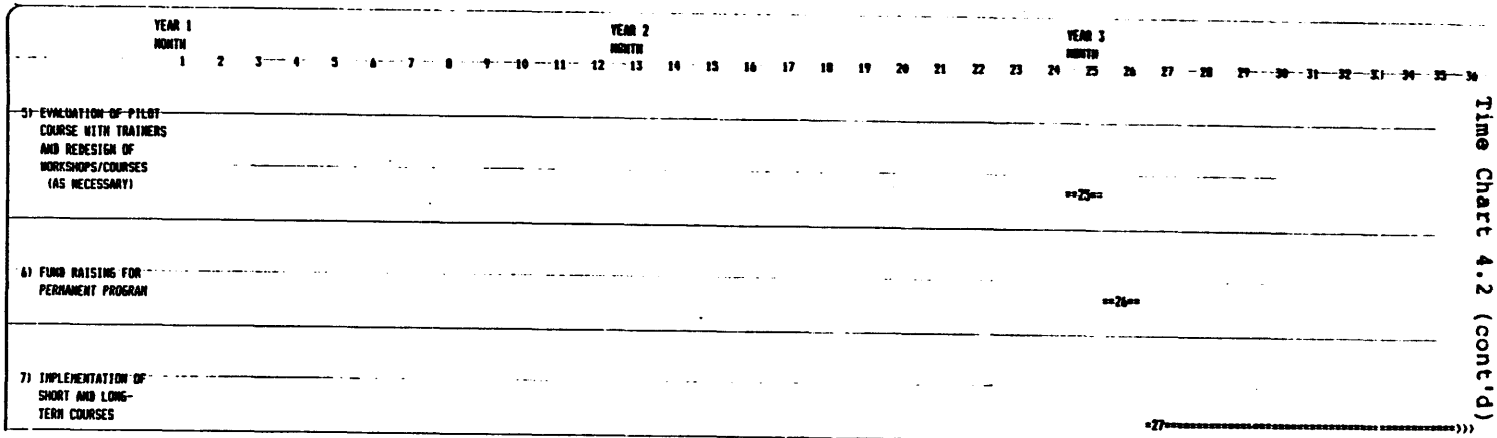
Financial Requirements: $72,000

Jobs Created: 6 trainers, 5 local and 1 territorial/national

Permanent Program Requirements: to be determined in Evaluation and Re-Design of Permanent Program -- possibly 5-6 local crafts teachers.



Time Chart 4.2



Time Chart 4.2 (cont'd)

4.3 Training Program for Young Craftspeople

Community people are expressing concern about the loss among young people of skills in traditional crafts. This loss has become particularly severe in the last 10-15 years, for two inter-related reasons. First, increasing settlement has decreased the number of people who live off the land, practise these traditional skills, and, most importantly, pass them on to the younger generations. Second, programs in the formal school system seldom include the teaching of these skills in their curricula.

As a result, young people, for the most part, are not learning traditional craft skills. The need for change is urgent: if training is not designed and implemented immediately, it is quite possible that these traditional skills may die with the current generation of elders.

The goals of the Training Program for Young Craftspeople are:

1. To transmit knowledge of and skills in the traditional crafts to young crafts producers in the Delta in a systematic way, so that these skills will not be lost and so that young people may produce both for their families and for sale.

2. To help young crafts producers in the Delta make high quality items of value both to themselves and to outsiders, making crafts sales a reliable source of income.

3. To develop pride in these traditional skills by acknowledging their usefulness, beauty, and importance to the Delta way of life.

The specific objective of this Training Program is to establish three types of crafts training program for young people:

In-School Program: Recognizing that much of their learning and skills development takes place in the formal school environment, this program would provide young people with crafts training within the school system through existing programs such as home economics and industrial arts classes. Local elders/specialists with skills in particular areas (tanning, fur preparation, toboggan making, etc.) would come into the school to teach the young people, or perhaps use the school as a base for their teaching. As with the on-the-land programs, credit would be given for these subjects in the regular school curricula, and both teaching and grading of

students would be done in an organized fashion.

Bush Camp Program: In conjunction with the on-the-land programs, instruction in traditional crafts could take place in a bush-camp setting on the land, and could be incorporated into the existing school curricula in a structured and supervised way. This would provide a more intensive, in-depth learning experience than the in-school program, as the young people would be on the land for extended periods of time.

Apprenticeship program: As the skill level and interest of individual crafts producers increases, an apprenticeship program would help them further develop these skills. Individuals would be paired with appropriately skilled and interested teachers/practitioners to acquire expertise in their area of specialization. This program would provide recognition for the expertise of skilled craftspeople within the communities, as well as advanced training for young people. Accreditation could be provided, and the learning supervised and supported through a local institution such as the proposed Inuvik Campus of Arctic College.

The paragraphs below summarize the program development and design phases necessary to bring these programs to operation. Community interest in crafts training programs varies, and a community-by-community approach (based on local resources in all cases) should therefore be taken. Community consultation will be critical to program design: in identifying key teachers/ resource people, and in gaining input from current crafts producers to program content and implementation. The material below should be read in conjunction with the following table.

Follow-up Required

Phase 1: Research. As recommended in Fee-Yee's report, a thorough evaluation of previous training/education initiatives in the crafts sector should be made. This review and assessment will provide direction for future training projects, especially for young people. A review of existing school curricula, and of other community efforts to develop training programs in this area in co-operation with the formal school system, are also needed.

Phase 2: Community Consultations and Program Designs. The Delta communities have varying amounts of interest in, and

experience with, both training young people and production of specialty items. A community-by-community approach should therefore be taken. In particular, the communities might differ in their priorities for course content and course structure.

Interest and current level of involvement in crafts production is high in Fort McPherson. It is therefore suggested that a start on these programs be made here. Meetings with crafts producers (on both an individual and a group basis), interested young people, the Gwich'in Cultural Centre, the Local Education Authority, and the school teachers of home economics and industrial arts, could usefully address a number of issues, including: (1) What should be taught and what are the priority items? (2) How should these subjects be taught and by whom? How should the teaching be incorporated into the existing school curricula? Who will supervise, and who will mark the students? (3) Who will follow up with specific workplans, etc., and other tasks needed to implement the program?

Designated teachers, crafts producers, and specialists would then meet to design the training program.

In Aklavik, Arctic Red River, and Inuvik, a similar process could be used to design and implement crafts training programs for young people, based on the three types of programs outlined here, according to the interest and demands of local young people, crafts producers, etc.

Phase 3: Proposal Writing for Permanent Programs. When the programs have been designed, proposals to establish these programs on a permanent basis (where desired) would be written.

Phase 4: Fund Raising for Permanent Programs. Time should be allocated for raising funds for these programs. In addition, the proposals developed above should be submitted to and lobbied for within the school system, the Crafts Division of the Department of Economic Development, and possibly through Special ARDA and the EDA.

Financial and Staffing Requirements

Phase 1: Research into Existing Delta School Programs, and Other Programs
Staffing: Crafts Development Specialist and Trainee, and Renewable Resources Director
Finances: Salary, $15,000; Travel, $3,000

Phase 2: Community Consultations and Program Design
Staffing: Crafts Development Specialist and Trainee
Finances: Salary, $40,000; Travel, $7,000

Phase 3: Proposal Writing for Permanent Programs
Staffing: Crafts Development Specialist and Trainee
Finances: Salary, $5,000

Phase 4: Fund-Raising for Permanent Programs
Staffing: Renewable Resources Director and Trainee
Finances: Salary, $2,000

Financial Requirements: $72,000

Jobs Created: 1 Crafts Development Specialist and 1 Trainee

Permanent Program Requirements: to be determined in Program Design Phase -- possibly 1 Regional Coordinator (full time) or 4 Community Coordinators (part time).

TRAINING PROGRAM FOR YOUNG CRAFTS PEOPLE

	YEAR 1 MONTH 1	2	3	4	5	6	7	8	9	10	11	12	YEAR 2 MONTH 13	14	15	16	17	18	19	20	21	22	23	24
1) RESEARCH: EXISTING DELTA SCHOOL PROGRAMS & OTHER PROGRAMS	[=========]																							
2) COMMUNITY CONSULTATIONS AND PROGRAM DESIGNS																								
- FORT McPHERSON																								
MEETINGS WITH CRAFT PRODUCERS, YOUNG PEOPLE, CULTURAL CENTRE, LEA AND SCHOOL TEACHERS																								
- DESIGN PROGRAM				[=========]																				
- ACLAVIK																								
MEETINGS WITH CRAFT PRODUCERS, YOUNG PEOPLE, LEA AND SCHOOL TEACHERS																								
- DESIGN PROGRAM						[=========]																		
- ARCTIC RED RIVER																								
MEETINGS WITH CRAFT PRODUCERS, YOUNG PEOPLE, LEA AND SCHOOL TEACHERS																								
- DESIGN PROGRAM								[=========]																

Time Chart 4.3

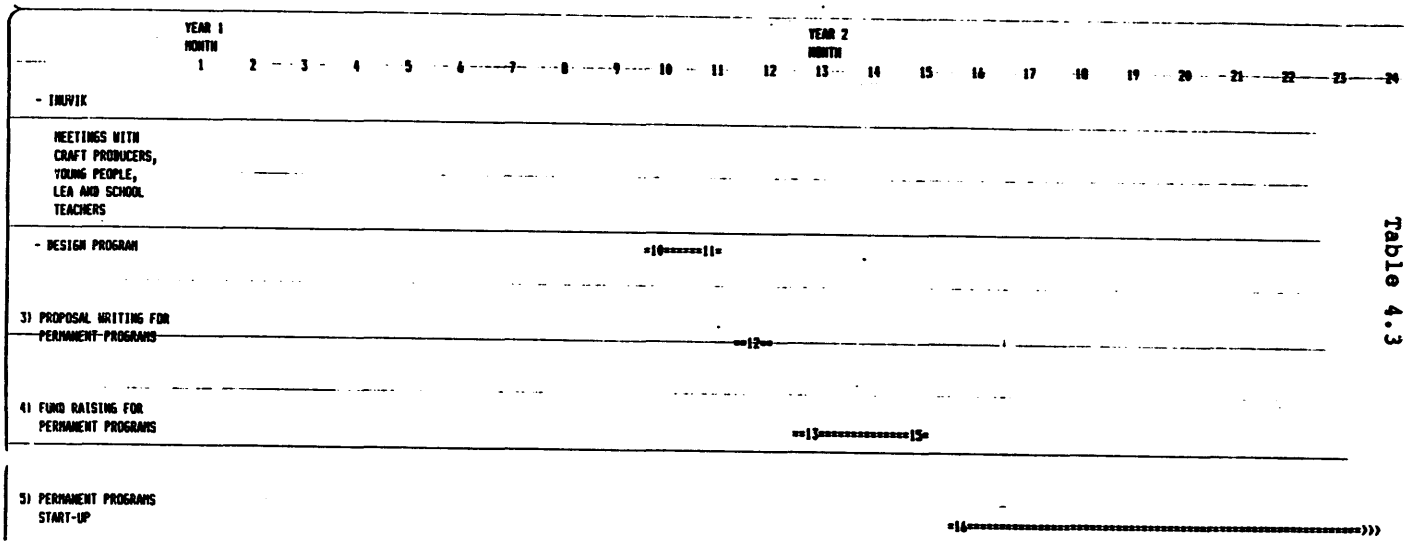

YEAR 1
MONTH
1 2 3 4 5 6 7 8 9 10 11 12
YEAR 2
MONTH
13 14 15 16 17 18 19 20 21 22 23 24
- INUVIK
MEETINGS WITH CRAFT PRODUCERS, YOUNG PEOPLE, LEA AND SCHOOL TEACHERS
- DESIGN PROGRAM
3) PROPOSAL WRITING FOR PERMANENT PROGRAMS
4) FUND RAISING FOR PERMANENT PROGRAMS
5) PERMANENT PROGRAMS START-UP

Table 4.3

5. TOURISM

Tourism development in the Delta is in the initial stages right now, with a number of important initiatives being made by local native-owned operations. For example, the Inuvialuit Development Corporation runs guided muskox, polar bear, and caribou hunts from the communities of Paulatuk, Sachs Harbour, and Holman Island; visiting tourists can hire planes to take tours of the area from Antler Aviation and Aklak Air, both of which are partnership ventures between local Native individuals and regional native organizations, the Mackenzie Delta Regional Development Corporation and the Inuvialuit Development Corporation respectively. There are, however, tourism operations in the region that have very little beneficial impact on local Native people and, in fact, generally operate without their involvement or control. An example would be the Arctic Red River Lodge (up the Arctic Red River from the community of Arctic Red River) which runs a tourist fishing and hunting facility; despite overtures to them from the Arctic Red River Band, they have not made an attempt to contact the Band regarding hiring of local people or other aspects of developing good working relations. In addition, there is some concern expressed about the extent of regional tourism development being controlled by non-Native business interests in Inuvik. In short, although it is generally perceived that there are tourism opportunities in the region, the current situation is viewed with mixed feelings.

Benefits of Tourism

Despite some of these concerns, local Dene/Metis have begun to think about the possible benefits of tourism development in the region, both for individuals and for communities. The following are some benefits of tourism that have been identified:

- jobs and income are created for local people;
- interest in and knowledge of the area is expanded;
- local facilities are established (parks, museums, stores, etc.) that benefit local people as well.

In addition, tourism can help to:

- o build pride in one's community and develop a sense of local history and development;
- o develop people's skills in communication, as they work to interpret and explain local history, etc., for tourists;
- o educate tourists about certain aspects of local history and development, such as political development, land claims, cultural expression and continuity;
- o support development of local culture, particularly dancing, singing, music-making, etc.

Dangers of Tourism

However, if not developed and carried out in the appropriate way, there is also a distinct possibility that tourism development will become a liability, not an asset, for Delta Dene/Metis. The following are some dangers to be on guard against:

- o local people could end up getting slotted into dead-end, low-paying service jobs, while ownership and control -- and thus benefits -- of tourism business go to outsiders. Demoralizing feelings of servitude could result. (Contrast this with Bermuda, for example, whose economy is almost totally dependent on tourism but where people are universally polite, hospitable, and warm, and take pride in sharing their unique culture and island with outsiders.)
- o local culture may end up being "put on display". Instead of continuing as a living culture it becomes something to be trotted out for the tourists, something fossilized that people only get paid to do. (Contrast this with some areas of the Third World, where tourism has led to a regeneration and revitalization of local dance, drama, pottery, and art forms.)
- o land use conflicts may result between tourist use and local use for subsistence and commercial development, especially with respect to sports hunting and fishing. This has happened extensively in northwestern Ontario, where non-local tourist hunting and fishing lobbies were

powerful enough to prevent the signing of a Fisheries Agreement among native people, the province, and the federal government that would have guaranteed native subsistence use. This is hardly a situation one wants to see replicated in the Mackenzie Delta. Land use planning and extensive community consultations should go a long way toward preventing this kind of situation.

These dangers, however, can be prevented, mitigated, and/or overcome with careful planning and local control, so that tourism can be pursued for the benefit of Delta Dene/Metis. Resources now being focused on the region through the Western Arctic Visitors' Association (WAVA) make this an opportune time for Dene/Metis to pursue the development of their own principles, strategies, and programs in order to become involved in the formative stages as resources are being put in place for tourism development.

Attention has recently been focused on sport hunting because of the attempt to develop a Dall sheep sport hunt in the Richardson Mountains near Aklavik, but this should not hide the fact that there are many other kinds of tourists and tourism than those who want to pursue sport hunting and fishing. WAVA research, for instance, has indicated that there are other priorities for vistors besides sport hunting. These include:

- Arctic landscape and wildlife
- Local history and culture
- Entertainment
- Souvenirs/crafts.

A Delta regional tourist development strategy could focus on cultural on-the-land experiences, for example, and both generate income and jobs for local people and educate outsiders about local history and culture.

The remainder of this section on tourism contains proposed principles/guidelines for tourism development that could be used to guide Delta tourism projects, particularly -- but not limited to -- those initiated by the Dene and Metis; a listing of proposed specific community tourism opportunities in the communities of Fort McPherson, Aklavik, and Arctic Red River; and a discussion of the follow-up required, i.e., the five phases required to identify and develop proposals for specific community and regional tourism projects.

5.1 Proposed Principles

The following proposed principles/guidelines for tourism development could be adopted by the regional Council and used by it (and other agencies dealing with tourism development) to assess all projects proposed for the region. Each principle is followed by a brief explanation of its meaning and/or application.

1. Delta Dene and Metis people will take an active and self-determining approach to the development of tourism opportunities in their region. Instead of sitting back and being passive objects of tourists, the Dene and Metis people choose to take an active approach and become involved in regional tourism development.

2. Tourism development in the region must not conflict with domestic and community uses of renewable resources. The Delta Dene and Metis people identify their traditional economy and resources as having priority for development.

3. Delta tourism potential must be developed in a manner which maximizes locally-based, owned, and operated organizations. Benefits from tourism in the region must stay as far as possible with the people and the organizations in the region.

4. Tourism development in the Delta region shall take place in a manner which maximizes local job creation and income.

5. Tourism development in the Delta region shall aim to educate visitors about Dene and Metis history, environment, and culture.

6. Tourism in the Delta region shall be undertaken by Delta regional people and their organizations in a comprehensive and integrated manner. That is, it shall attempt to provide each of the following in the industry:

- development of specific opportunities;
- training opportunities for local people;
  - for guides and hosts
  - for Tourism Steering Committee
- infrastructure development to carry out these developments:
  - tourist information centres (highway kiosks, at ferry crossings, etc.)

- campground/picnic site development
- food outlets
- craft shop development
- brochure and signs development
- dog team development for tourist operators.

7. Tourism development shall be carried out in a manner that maximizes local skills and resources.

8. Tourism development in the Delta shall attempt to reach markets at all levels: local, regional, territorial, national, and international.

9. Tourism development in the Delta shall be aimed at various types of tourists:

- o mass mode package tours
- o specialized tourists such as:
  - business travellers
  - naturalists
  - history/ archaeology enthusiasts
  - cultural-experience travellers interested in on-the-land experiences
  - sport hunters/fishermen.

10. Tourism development in the Delta shall be based on a mixture of community and land-based activities. In particular, there can be a mixture of the following sorts of activities:

- o Community package tours (i.e., walking tours, etc.);
- o On-the-land cultural experience with local people for both summer and winter seasons;
- o Hunting, from lodge/camps;
- o Fishing, from lodge/camps.

11. A regionally-based Tourism Steering Committee shall be established to guide tourism development. Organization of this Steering Committee will include funding for staffing, training, and workshops.

5.2 Specific Community Tourism Opportunities

The following inventories of tourism opportunities in the Delta communities of Fort McPherson, Aklavik, and Arctic Red River are initial possibilities, based on community discussions and review of the Land Use Information Series Maps. They are meant for discussion and the identification of other possibilities, and are not intended to be comprehensive.

Fort McPherson

1. Historical and Archaeological Sites

   - Fur trade encampments:
     - mouth of the Peel at Indian Village
     - First HBC Post (1840) 1.5 miles upriver, moved to present location in 1848
   - "Lost Patrol" of NWMP: monument where men froze to death
   - Destruction City: route of Yukon Gold Rush, 1898
   - "Mad Trapper of Rat River": cabin built by Albert Johnson in 1931
   - Various archeological sites upriver from McPherson
   - Museum development.

2. Recreational Sites and Areas of Special Geological Interest

   - Rat River: in addition to historic interest, the area includes part of the canoe route over to Dawson and Fort Yukon
   - Richardson Mountains: south of Mount Goodenough: interesting and colourful rock formations and several large fossil beds

3. International Biological Program:
Conservation of Terrestrial Biological Communities

- Proposed reserve site around Rat River contains both glaciated and unglaciated terrain of the Richardson Mountains, offering unique opportunities to study the origin and dispersal of Arctic and boreal floras

4. Cultural/On-The-Land Experiences

- Seasonal possibilities: incorporating dog teams as a means of travel where possible

5. Fort McPherson Townsite

- Gwich'in Cultural Centre
- Community Complex
- Tent and Canvas Shop
- Craft Shop, etc.

6. Sport Hunting and Fishing

- Depends upon outcome of discussions with Hunters and Trappers Association, Band Council, Metis Local, etc.

Aklavik

1. Historical and Archaeological Sites

- Around Aklavik
  - Pokiak Point: HBC trading post at Old Aklavik
  - archaeological site on Peel Channel, north of Aklavik on east bank
- Archaeological site on Willow River
- Peel Channel: site of independent trading post that operated between 1936-1964.

2. Recreational Sites

- o Long boat trips on the Mackenzie River
- o Richardson Mountains: interesting rock formations and scenic features
  - view of the Delta from Aklavik Range
  - Canoe Lake: hiking trips, camping, etc.
  - geological sites of interest: three sites noted in the Richardsons
- o Canoeing: long and short routes.

3. Cultural/On-The-Land Experiences

- o Summer: fishing camps, berry picking, etc.
- o Fall: fish camps
- o Winter: trapping, hunting (caribou, moose)
- o Spring: ratting camps, etc.

4. Aklavik Townsite

- o Museum
- o Anglican and Catholic churches
- o Craft Shop
- o (re-opened Fur Shop)

5. Internationsl Biological Program

- o Proposed reserve site around Canoe Lake: area that is largely unglaciated, rich and varied vegetation, including some unique snowbed associations.

6. Sport Hunting and Fishing

- o Depends upon outcome of discussions with Hunters and Trappers Association and other community groups.

Arctic Red River

1. Historical and Archaeological Sites

   - Numerous archaeological sites on east and northeast sides of the community; some summer excavation camps may be of interest to tourists.

2. Recreational Sites and Areas of Special Geological Interest

   - Rengling River: broad valley with varied and lush vegetation
   - "Lower Ramparts" above the community
   - Mackenzie River Valley: suitable for long boat trips; scenic sections, good fishing and camping locations.

3. Cultural/On-The-Land Experiences

   - Summer/Fall: fishing camp near the community (currently in the planning stages); possible demonstrations of net fishing, smoking, drying, and preparation of fish, food sales (smoked and dried fish, etc.), holding fish frys for tourists, boat rides up to the Ramparts, etc.
   - Winter: Trapping/hunting camp experiences, using dog teams, demonstrating on-the-land skills -- trapping, pelt preparation, hunting, food preparation, wood-gathering, ice fishing, etc.
   - Travaillant Lake: area is one of the best marten trapping areas in the north.

4. Sport Hunting and Fishing

   If viewed as desirable --

   - Investigate possibility of taking over Arctic Red River Outfitters, now based upriver on the Arctic Red River
   - Identify sport fishing potential and possibilities of development.

5. Arctic Red River Townsite

- o Band Office
- o Health complex
- o Catholic church
- o (Craft Shop, whenever opened) etc.

5.3 Follow-up Required

The Delta Dene/Metis can develop their own principles and process for tourist development. They can decide if they want to get involved in promoting and dealing with tourism, and if so, how.

As a minimum strategy, the Dene/Metis could merely develop and ratify general principles for tourism development and lobby to have them established as guidelines to the actions and projects controlled by other, non-Dene/Metis tourist operators in the region.

But the assumption is clearly being made here that the Dene/Metis want to go much further than that. It is assumed that the Dene/Metis in the Delta want to initiate, manage, and control both the benefits and the impacts of tourism in their area. This assumption should be checked out in the communities themselves. If it is correct, the outline of process and phases below is suggested to bring specific tourism opportunities to the implementation stage. This outline should be read in conjunction with the following table.

Phase 1: Formation of a Regional Tourism Steering Committee. The purpose of this Steering Committee will be to guide tourism developments in the Delta Region. Its members could include community people already involved with tourism initiatives, or those who have a strong interest in the area. It should also include a tourism development consultant to work with the regional members on the development of specific opportunities.

Phase 2: Phase 2: Selection of Tourism Consultant. A tourism consultant/consulting firm should be selected to work with the Steering Committee. The specific terms of reference for this position would be worked out with the Steering Committee, but could include working with the Committee on tasks such as identification and development of tourism

potential in the area, development of advertising and promotion campaigns, selection of market segments toward which these campaigns would be oriented, etc.

Phase 3: Community Consultations and Preparation of Background Document on Tourism Potential in Dene/Metis Communities. The consultant, after discussions with the Steering Committee and community consultants, will be responsible for preparing a background document on tourism potential in the Delta, summarizing the information gathered from research with the communities and outside the regions and making recommendations for a tourism development strategy for the Dene/Metis.

Phase 4: Identification of Community Tourism Resources and Strategy. After the backgound document is prepared, the Steering Committee and consultant will take the information contained in the document to the community (perhaps through a decision-making forum such as a Regional Assembly/Workshop) for decisions on:

- Changing/ratifying the Tourism Development Principles
- Identifying appropriate community tourism resources and opportunities
- Selecting priorities on a community-by-community basis for development.

The Steering Committee and tourism consultant will also discuss packages and promotion with Antler Aviation in Inuvik.

Once decisions are made, the consultant will conduct feasibility studies on the selected priorities, and then write proposals for implementation of projects, including:

- workplans
- resources needed
- schedules/time frames
- costs
- marketing
- management and ownership
- training requirements.

Phase 5: Identification of Regional Tourism Resources and Strategy. With the community-based tourism opportunities identified in Phase 4 above, the Steering Committee, the consultant, and the communities will be in a position to identify regional packages of tourism opportunities, each package linking specific community tourism opportunities into a

coherent marketable whole. The Steering Committee can also work out transportation and promotion arrangements on a regional basis with Antler Aviation. The Steering Committee will then take the information on regional tourism development to the communities for decisions on priorities and strategies for implementation.

Once these decisions are made, the consultant will conduct feasibiity studies on the selected priorities, and write proposals for implementation of specific projects, including:

- o workplans
- o resources needed
- o schedules/time frames
- o costs
- o marketing
- o management and ownership
- o training requirements.

Financial and Staffing Requirements

Phase 1: Formation of Regional Tourism Steering Committee
Staffing: MDRC Executive and RRD
Finances: --

Phase 2: Selection of Tourism Consultant
Staffing: Tourism Steering Committee, MDRC Executive & RRD
Finances: $2,000 (travel).

Phase 3: Background Document on Delta Tourism Potential
Staffing: Tourism consultant
Finances: Fees, $7,000; travel, $3,000.

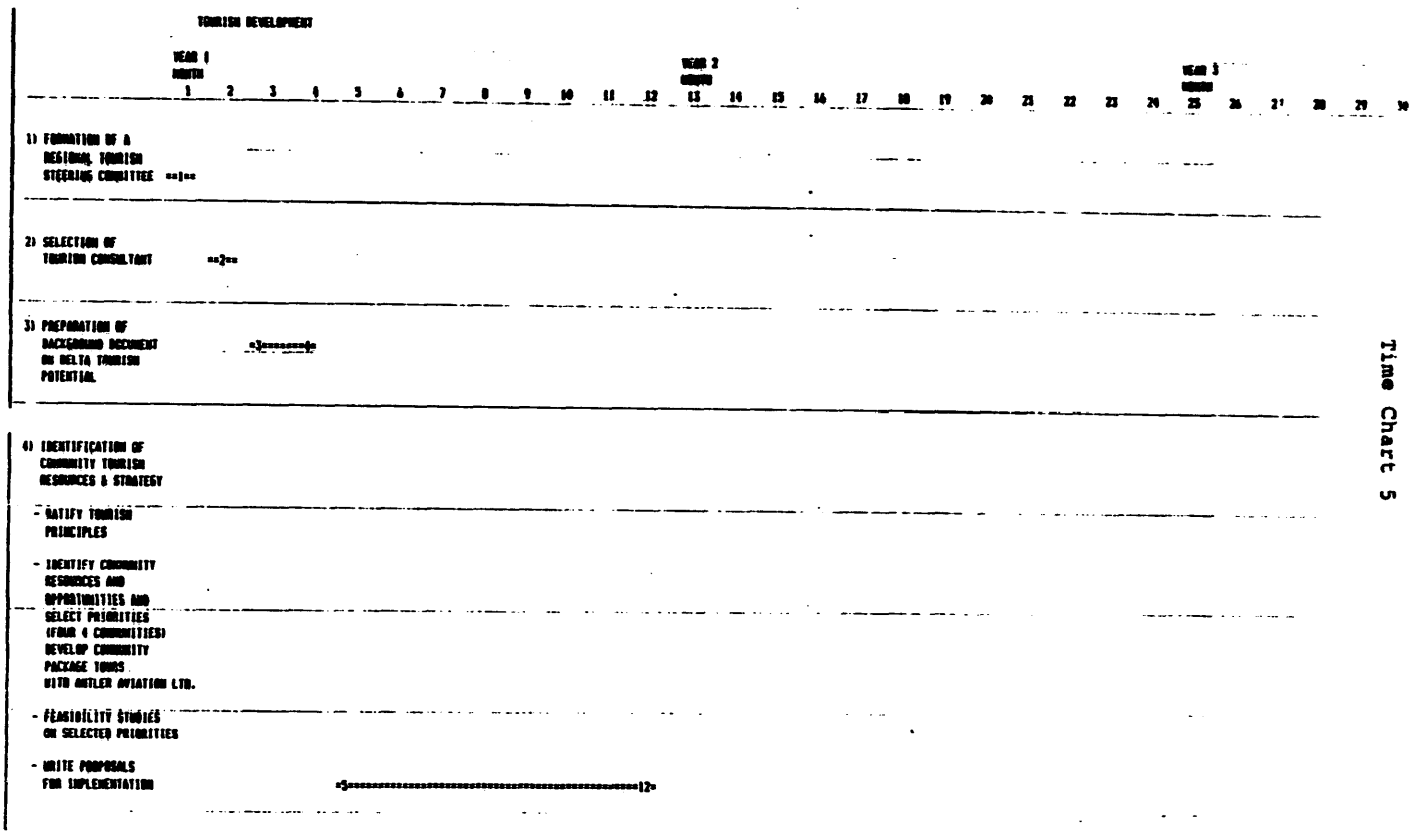
Phase 4: Identification of Community Tourism Resources
Staffing: Tourism consultant, Tourism Steering Committee, and communities
Finances: Fees, $28,000; travel, $5,000.

Phase 5: Identification of Regional Tourism Resources and Strategy
Staffing: Tourism consultant, Tourism Steering Committee, and communities
Finances: Fees, $28,000; travel, $5,000.

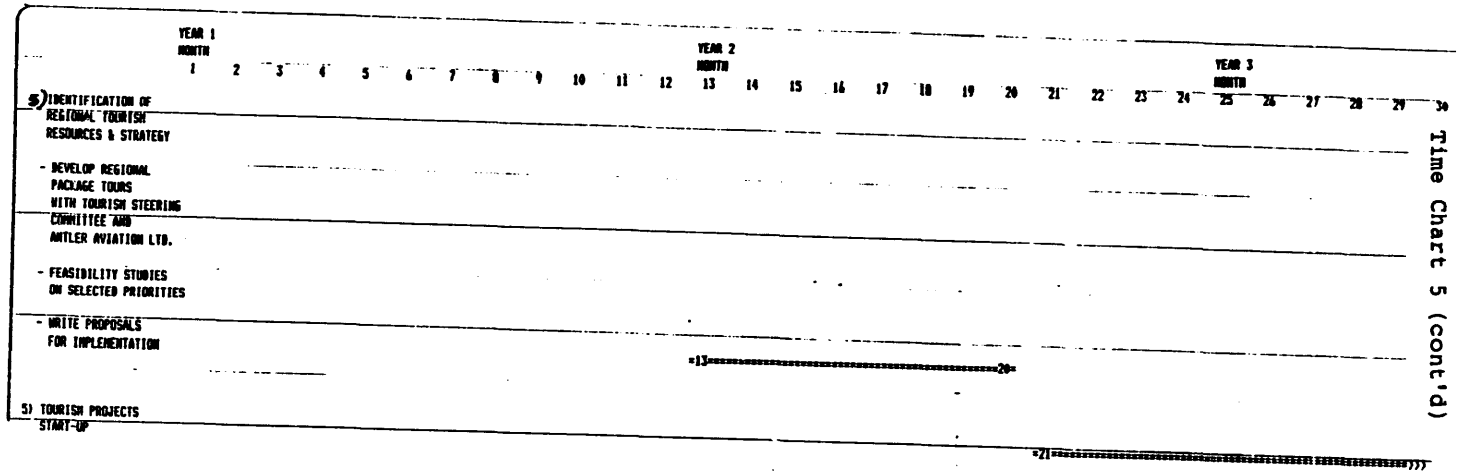
Total Financial Requirements: $78,000.

Jobs Created: 1 tourism consultant.

Permanent Program Requirements:
To be determined in the course of the Development of Community and Regional Tourism Opportunities.


TOURISM DEVELOPMENT
YEAR 1
MONTH
1 2 3 4 5 6 7 8 9 10 11 12
YEAR 2
13 14 15 16 17 18 19 20 21 22 23 24
YEAR 3
25 26 27 28 29 30
1) FORMATION OF A REGIONAL TOURISM STEERING COMMITTEE
2) SELECTION OF TOURISM CONSULTANT
3) PREPARATION OF BACKGROUND DOCUMENT ON DELTA TOURISM POTENTIAL
4) IDENTIFICATION OF COMMUNITY TOURISM RESOURCES & STRATEGY
- RATIFY TOURISM PRINCIPLES
- IDENTIFY COMMUNITY RESOURCES AND OPPORTUNITIES AND SELECT PRIORITIES (FOUR 4 COMMUNITIES)
DEVELOP COMMUNITY PACKAGE TOURS WITH ANTLER AVIATION LTD.
- FEASIBILITY STUDIES ON SELECTED PRIORITIES
- WRITE PROPOSALS FOR IMPLEMENTATION

Time Chart 5



Time Chart 5 (cont'd)

6. FISHING

Both historically and currently, the domestic value of the fisheries to Native people in the Mackenzie Delta region is very great. Historically, local people relied on the summer and fall harvest of fish to take them through the winter in between caribou and moose harvests. The harvest itself was substantial: within recent memory, warehouses were full of fish of a wide variety of species and in various forms of being preserved -- dried, smoked, tinned, frozen, etc.

Even today, summer and fall fishing and winter jiggling through the ice provide a rich and varied source of food to local people. Special species and special parts of fish provide, at different times of the year, essential nutrients that would be virtually impossible to replace through imported foods; for example, the liver of "loche" (ling, or freshwater cod) is very high in vitamin D, and people fish for it in the fall to provide themselves with a higher amount of vitamin D to offset the lack of sunlight in the winter darkness.

Because there is not much of a commercial harvest in the Delta, it is hard to know precisely how much of the annual catch in each of the communities goes to domestic consumption; only a full-scale harvest study would provide that information. Community informants will state that there are fewer people going out fishing, and that the volume of fish harvested falls short of what it once was.

Despite this, however, many community people do spend substantial amounts of time fishing for food for their families, relatives and other community people. One need only to have spent this past fall in the Delta communities to have witnessed the number of people and families engaged in the activity on both a full- and a part-time basis. At Arctic Red River, for example, it was estimated that there were more than 100 nets set in the Arctic Red and Mackenzie Rivers; at Aklavik many nets were set at the turn of the Peel Channel and many people jiggled through the ice at Jackfish Creek. During visits to community homes it was evident that locally-harvested fish is a regular part of many families' diets.

Despite this fairly widespread participation in the domestic fishery, however, there have been problems in

establishing a successful commercial fishery in the Mackenzie Delta. The problems in the Delta parallel, and in some cases surpass, those in the Great Slave Lake Fishery, which have been well documented. One of the major problems is the high cost of transporting the fish to southern markets: Delta fish could not compete, in the major midwestern USA markets, with fish produced in northern Manitoba, for instance, without a transportation subsidy. A second major problem is that the costs of production in the Delta would be very high, due mainly to high costs of capital and operating equipment; this would further raise the price of fish on southern markets. Because of such competitive disadvantages, fish production would yield low returns to the fishermen, and the enterprise would require a high level of subsidization. (Part of the competitive price disadvantage for Delta fish might be overcome by creating a market for Delta specialty products such as Arctic Whitefish, but such specialty markets have not yet been developed.)

The biological aspects of fish harvesting on a commercial scale would also have to be carefully investigated and controlled, given the problems of reproductive capacity in the Arctic environment. Commercial fish harvesting could not be approached on the basis of large-scale extraction unless it could be established that it would definitely not destroy the long-term reproductive capacity of the various species.

However, the research to date on fish in the Delta is more extensive than that on almost any other species, affording a good starting point for research and development of fisheries projects. This chapter of the Development Plan, dealing with fisheries, includes proposed principles for the development of fisheries in the Delta, and an outline of the follow-up required.

6.1 Proposed Principles

It is suggested that the following principles be discussed, modified as necessary, and ratified by the Delta Dene and Metis people in order to serve as a guide to developing fisheries projects in the Delta.

1. Domestic subsistence use of the fish resources in the Delta must have priority over all other uses. Commercial and sports fishing must not conflict with domestic subsistence needs and uses.

2. The harvesting of fish for all uses (domestic, commercial, and sports) must be carried out in a manner that ensures reproduction of the fisheries at sustainable yields levels.

3. Any commercial and sports fishing development must be to the benefit of local people, in terms of both jobs and income.

4. Any commercial and sports fishing that takes place must be under local control and management.

6.2 Follow-up Required

The short-term objective of the follow-up recommended for fisheries development in the Delta is to develop specific commercial fish projects that could be started immediately and would benefit local people. In particular, a feasibility study on the production and commercial distribution of smoked dried whitefish and arctic char is recommended.

The long-term objectives are: to conduct research for fisheries development and enhancement; and to develop specific commercial fish projects that would benefit local producers. In particular, a feasibility study for whitefish eggs/roe production and sale could be undertaken over the long term, once the commercial development of smoked dried whitefish and char was put into place.

The outline, below, of these short- and long-term projects should be read in conjunction with the table that follows.

Phase 1: Feasibility Study on commercial production and distribution of smoked dried whitefish and Arctic char. Options for the production and smoking of the fish would be identified (e.g., on the basis of individual effort, or of that of crews, etc.). Labour needs and the most efficient scale of operation would be assessed. The options for ownership and management of capital, production equipment such as boats and smoke houses, and wages and shares, would be identified here. This would include looking at forms of organization and ownership such as individual entrepreneurship, production co-operatives, community development corporations, etc.

The technology required (boats, nets, freezers, smoke houses, etc.) would be examined, with reference to scale of operation.

The options for distribution and marketing would be investigated, with reference to community, regional, and territorial levels of organization.

Community consultations would take place once the investigations were complete and materials were compiled for discussion.

After community decisions have been made, detailed business plans would be developed and funds raised for implementation.

Phase 2: Biological Research Programs for fisheries development and enhancement. A specialist consulting firm would be contracted to do the following:

- o compile and review all existing information concerning fish diversity, distribution, and abundance, together with specific fisheries information for the region, including any information on traditional resource harvesting and management;
- o develop a a stream and lake catalog;
- o produce a limited biophysical assessment of each system, including information on fish access and usage and basic water quality conditions;
- o develop a specific enhancement plan (which would include improving stream and lake access, and creating or upgrading spawning and rearing habitats);
- o implement the enhancement plan with local fishermen, so that fish harvest activities can be established or expanded;
- o write proposals for follow-up on specific projects.

Phase 3: Feasibility Study on whitefish eggs/roe commercial production and distribution. The steps in this phase parallel those of the feasibility study on whitefish and Arctic char, above.

Options for the production of the roe would be identified (e.g., by individual effort or by crews, etc.). Labour needed and the most efficient scale of operation would be assessed.

Options for ownership and management of capital, production equipment (such as boats, nets, freezers, and processing facilities), wages, production incentives, and so forth would be identified in this phase. This would include looking at forms of organization and ownership such as individual entrepreneurship, production co-operatives, community development corporations, etc.

The technology required would be assessed, with reference to the scale of operation.

Options for distribution and marketing would be investigated, with reference to the community, regional, territorial, and international levels.

Community consultations would take place when the investigations have been completed and materials compiled for discussion.

When community decisions have been made, detailed business plans would be developed and funds raised for implementation.

Financial and Staffing Requirements

Phase 1: Feasibility Study on Whitefish and Arctic Char
Staffing: Fish biologist and business development specialist, with RRD
Finances: Fees, $40,000; travel, $10,000.

Phase 2: Biological Research Program for Fisheries Development/Enhancement
Staffing: Fish biologist and four local fishermen/trainees
Finances: Fees, $145,000; travel, $15,000.

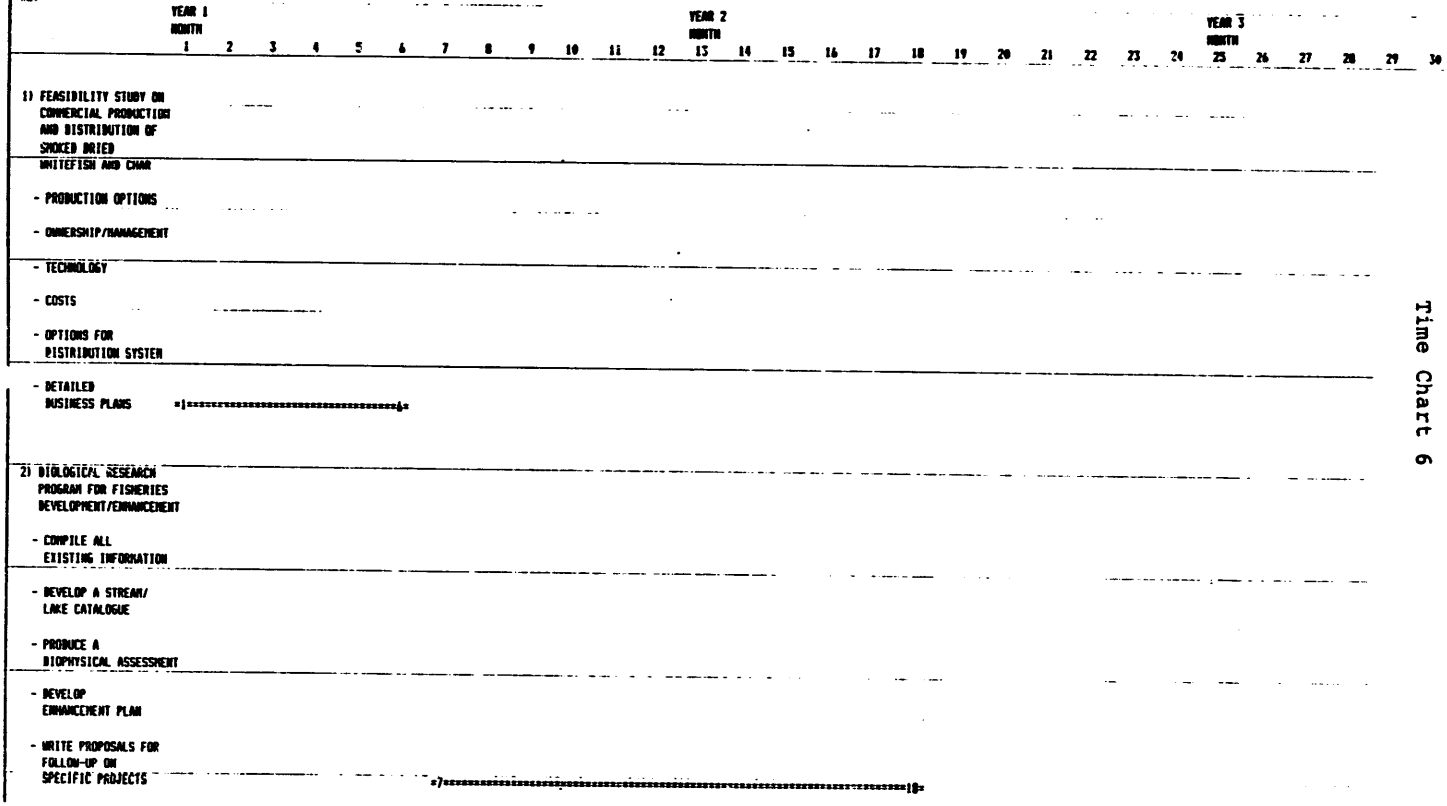
Phase 3: Feasibility Study on Whitefish Eggs/Roe
Staffing: Fish biologist and Business development specialist, with RRD
Finances: Fees, $40,000; travel, $10,000.

Total Financial Requirements: $260,000.

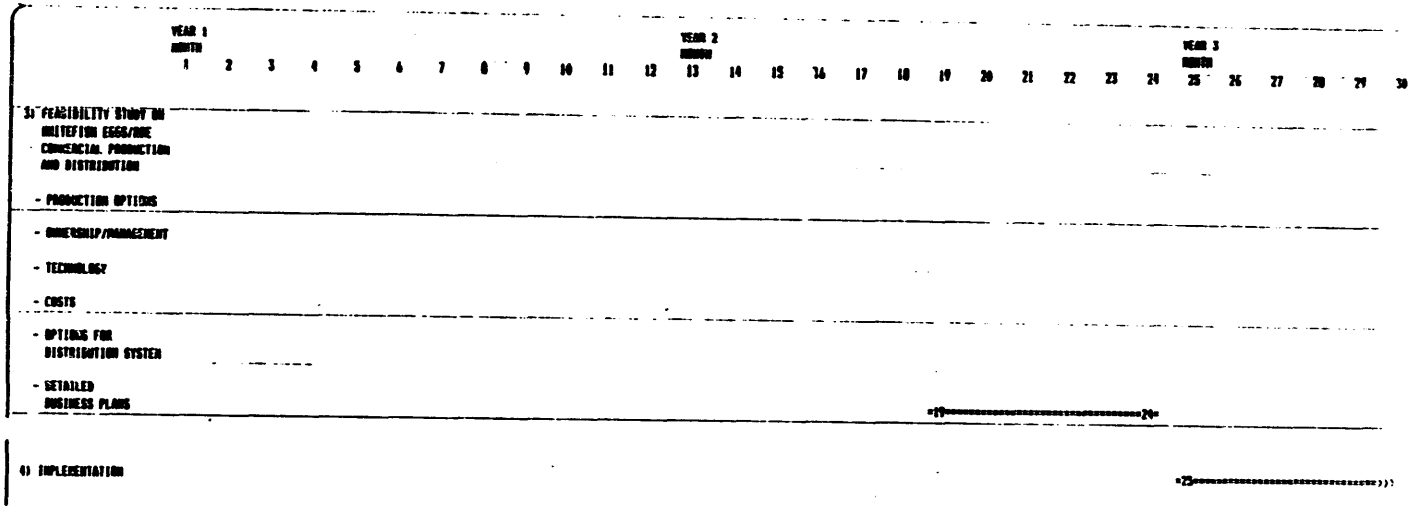
Jobs Created:
One fish biologist for 20 months; 1 business development specialist for 8 months; 4 local fishermen/trainees for 1 year.

Permanent Program Requirements:
To be determined in the course of the Feasibility Studies and Biological Research Program.

FISHERIES DEVELOPMENT



Time Chart 6


YEAR 1
MONTH
1 2 3 4 5 6 7 8 9 10 11 12
YEAR 2
MONTH
13 14 15 16 17 18 19 20 21 22 23 24
YEAR 3
MONTH
25 26 27 28 29 30
3) FEASIBILITY STUDY ON
MILKFISH EGGS/ROE
COMMERCIAL PRODUCTION
AND DISTRIBUTION
- PRODUCTION OPTIONS
- OWNERSHIP/MANAGEMENT
- TECHNOLOGY
- COSTS
- OPTIONS FOR
DISTRIBUTION SYSTEM
- DETAILED
BUSINESS PLANS
*19
24*
4) IMPLEMENTATION
*25

7. FORESTRY

In the Mackenzie Delta region there is a perception of a distinct lack of timber resources for local use and development. In truth there is little wood in the Delta region itself: the tree line weaves in and out of the area, and some areas close to the communities have been cut over. The perception of wood shortage may also be rooted in a substantial decrease in wood usage, as the communities have moved from wood-burning sources of energy to a greater reliance on imported oil, gas, and propane.

In either case, there is a striking lack of research and development of forestry resources in the Delta: government money has gone primarily into fire-fighting rather than into establishing inventories, management plans, or silvicultural projects for forest regeneration and development. With the recent devolution of government programs from the federal Department of Indian Affairs and Northern Development to the Government of the Northwest Territories, this may change; however, such plans must be developed, not only to regulate community use of forest resources but also to examine the potential of creating manufacturing enterprises based on wood products.

With increasing population in the Delta, and increasing pressure on the land and its resources, it is becoming vitally important that more work be done on developing forestry management plans in the areas of greatest use. While the Delta area itself is not heavily forested, there are areas of sizable timber stands -- up the Peel and Arctic Red Rivers, for instance -- where logging for local use (for fuel, and for regional construction uses such as logs and pilings for houses and other buildings) is taking place. Unless extraction of the timber is handled with great care, irreparable damage to the long-term reproductive capacity of the forests may result. It takes many years for the forests to regenerate. Forest inventories and management plans must be implemented to ensure effective long-term use of the wood resources.

It is also important to investigate the income and job-generating potential of the timber resources in the area. Historically, and until relatively recently in Arctic Red River, there were sawmills providing construction lumber for local use

at Aklavik, Fort McPherson, and Arctic Red River, which suggests that at least until recently there were merchantable stands of local timber. Important points of investigation include: Why did these operations close down? What were the economic and other limitations to their production? Were there other reasons for their closure?

As Delta people are aware, local secondary manufacturing or processing of a primary resource such as timber can (1) create jobs and income in the region; (2) use traditional skills and develop new ones; (3) create spin-off employment and income for local people in related industries; (4) keep money circulating inside the region, instead of leaking out to the south, by providing local products in place of imports from outside the region.

For example, sawmill production of construction logs could help to create local jobs, and perhaps contribute to lower housing costs, by avoiding the use of expensive imported lumber. It could generate a second round of industries, such as a carpentry shop for special items such as house furniture. It could also help to revive traditional skills like toboggan- and snow-shoe making, by providing access to special types of wood and a central location for people to gather together and manufacture these items.

The balance of this chapter on the forestry sector contains proposed principles for the development of forest resources in the Delta, and a discussion of the follow-up required.

7.1 Proposed Principles

It is suggested that the following principles be discussed, modified as necessary, and ratified by the Delta Dene and Metis people as a guide to forest resource development in the Delta.

1. Domestic, subsistence use of forest resources in the Delta must have priority over all other uses. Commercial uses must not conflict with domestic subsistence needs and uses.

2. The forest resources should be developed in a manner consistent with long-term reproduction at sustainable yield levels.

3. Any commercial development of the forests must be to the benefit of local people, in terms of both jobs and income creation.

4. Commercial development of the forests must be locally controlled and operated.

7.2 Follow-up Required

The short-term objectives of the follow-up recommended for forestry development in the Delta are: (1) to carry out detailed investigations of the sawmills that did exist in the three communities, including the reasons for their failures; and (2) to do a forest inventory and long-range management plan for the subsistence and commercial uses of the resource in the Delta.

The long-term objective, if the research above suggests it is appropriate, is to identify and conduct feasibility studies on specific wood manufacturing projects, such as timber-cutting and saw-milling for housing construction, toboggan- and snowshoe-making, warehouse construction, etc., that can be developed on a small scale under local control and for local or regional benefit.

The outline below of these short- and long-term projects should be read in conjunction with the table that follows.

Phase 1: Research. (1) Detailed Business Investigation of Community Sawmills. An investigation of the operations and experiences of the previous community sawmills in Aklavik, Fort McPherson, and Arctic Red River would assess the viability of re-establishing one or more of these operations under local control. The report will make recommendations about the economic efficiency of such operations, taking into account local needs for jobs and income.

(2) Inventory and Long-range Management Plan for Forestry Resources in the Delta. This study would conduct a forest inventory, investigating the kinds and locations of timber stands in the region, and assessing which of these could be commercially harvested. This part of the study would also compose a long-range management plan for the forests, taking into account community subsistence needs and the potential for

commercial development of small-scale manufacturing projects.

Phase 2: Development of Wood Manufacturing Projects. Pre-feasibility studies would be carried out to identify what kinds of small-scale local manufacturing of wood-based products can take place in the Delta and, with reference to the research carried out in Phase 1, how this can best be accomplished.

Community consultations for the selected priority projects would then take place, using the information gathered.

Feasibility studies on the priority projects which the communities have selected would then be conducted, including assessments of production volumes and costs, ownership, management, etc. Detailed business plans would be developed and funds raised for implementation.

Financial and Staffing Requirements

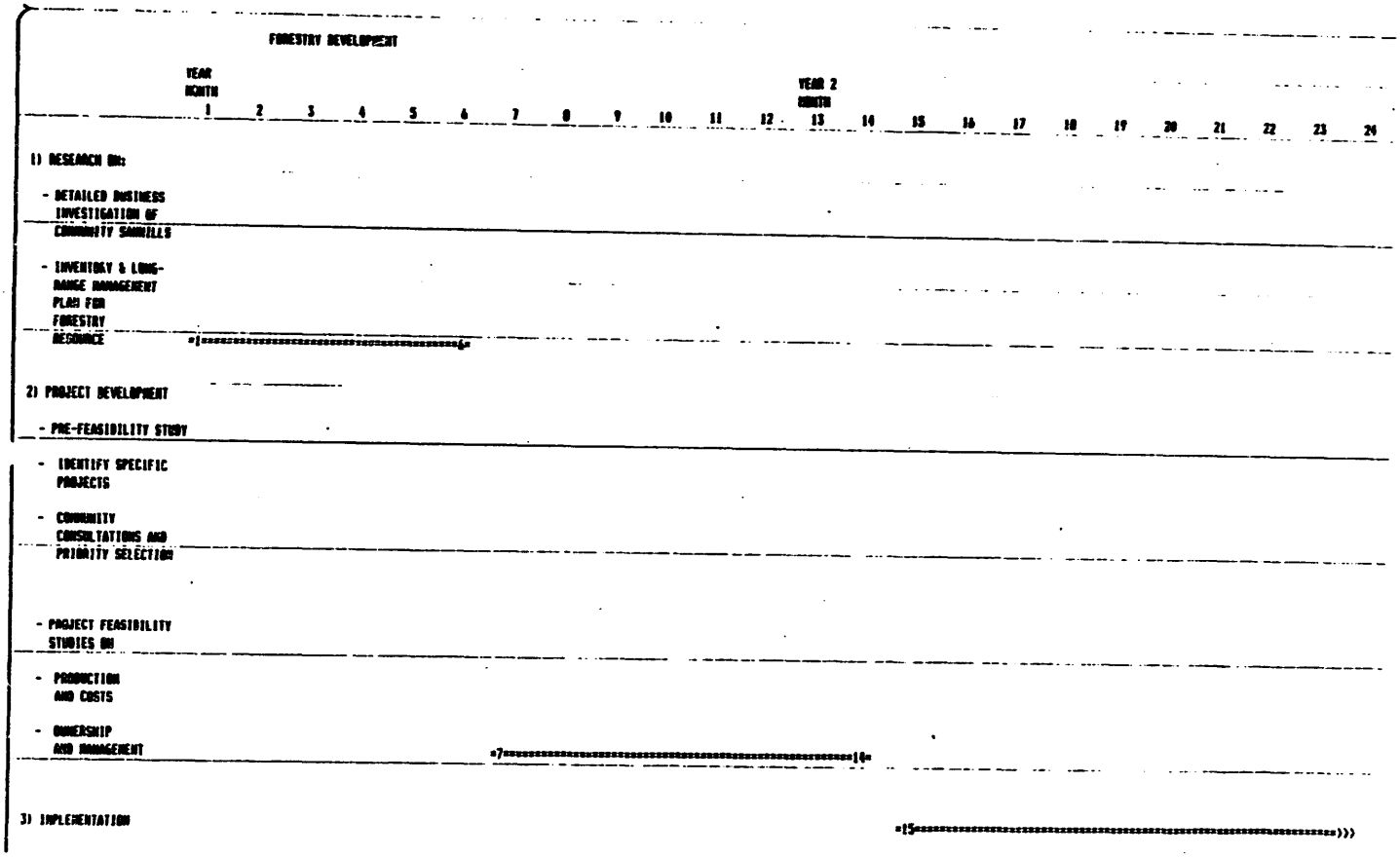
Phase 1: Research on Sawmills and Forest Inventory
Staffing: RRD / Economic Planner and Forester
Finances: Fees, $14,000; travel, $7,000.

Phase 2: Project Development
Staffing: RRD / Economic Planner and Forestry Business Development Specialist
Finances: Fees, $21,000; travel, $5,000.

Total Financial Requirements: $47,000.

Jobs Created:
1 forester specialist for 6 months.

Permanent Program Requirements:
To be determined in the course of the Project Feasibility Studies.


FORESTRY DEVELOPMENT
YEAR
MONTH
1 2 3 4 5 6 7 8 9 10 11 12
YEAR 2
MONTH
13 14 15 16 17 18 19 20 21 22 23 24
1) RESEARCH ON:
- DETAILED BUSINESS INVESTIGATION OF COMMUNITY SAWMILLS
- INVENTORY & LONG-RANGE MANAGEMENT PLAN FOR FORESTRY RESOURCE
2) PROJECT DEVELOPMENT
- PRE-FEASIBILITY STUDY
- IDENTIFY SPECIFIC PROJECTS
- COMMUNITY CONSULTATIONS AND PRIORITY SELECTION
- PROJECT FEASIBILITY STUDIES ON
- PRODUCTION AND COSTS
- OWNERSHIP AND MANAGEMENT
3) IMPLEMENTATION

Time Chart 7

APPENDICES

8.1 Terms of Reference, Renewable Resources Co-ordinator

8.2 Terms of Reference, Joint Management Committee

8.3 Ten-Year Development Plan (chart)

8.4 Fee-Yee Report (sections 2, 3, 4 and Appendix 2)

8.5 Guidelines for Project Summaries

8.6 Calculation of Prices in 1981 Constant Dollars

Appendix 8.1

Terms of Reference, Renewable Resources Co-ordinator

Terms of Reference, Renewable Resources Co-ordinator

Responsibilities:

1. To implement the Regional Council's Five/Ten-Year Renewable Resources Development Plan, according to priorities identified by the Regional Council and communities:

2. To provide information, direction, and co-ordination to renewable resources project consultants, both individually and as consultant teams;

3. To raise project and program funds; to liaise with government and non-government organizations on the development of projects; to monitor and analyze government policies and initiatives in the renewable resources sector; to work with the Regional Council on the formulation of its renewable resources policies; and to ensure Council input into government policies on renewable resources.

Qualifications:

* ability to design and administer economic or social development projects
* experience in and commitment to co-ordinating and participating in project teams with community people and leaders, project consultants, etc.
* experience with and commitment to community economic development, preferably in the area of renewable resources
* small business management a definite asset
* oral and written communications skills
* effective interpersonal communications, including cross-cultural skills
* experience in the Mackenzie Delta would be an asset
* willingness to live in Inuvik or the surrounding community
* minimum two-year commitment.

Appendix 8.2

Terms of Reference, Joint Management Committee

Terms of Reference, Joint Management Committee

The terms of reference of the JMC include:

* the JMC to oversee the co-operative implementation of research, projects, and programs as outlined in the Regional Council's Five/Ten-Year Renewable Resources Development Plan, and according to the priorities identified by the Regional Council

* the JMC to meet on a regular basis to review project and program proposals and workplans, to identify funding sources, to identify and provide Departmental technical expertise in the areas of wildlife management and economic development

* the meeting schedule to be established at the outset for a fixed period (e.g., for the first six months after the formation of the Commmittee), and then renegotiated as needed

* the first task of the JMC to be to review in detail and ratify the Regional Council's Five/Ten Year Renewable Resources Development Plan

* membership to consist of equal representation of the Dene/Metis and GNWT, with GNWT representatives equally distributed between the Department of Renewable Resources and the Department of Economic Development and Tourism

* the chair of the JMC to be a person acceptable to all parties

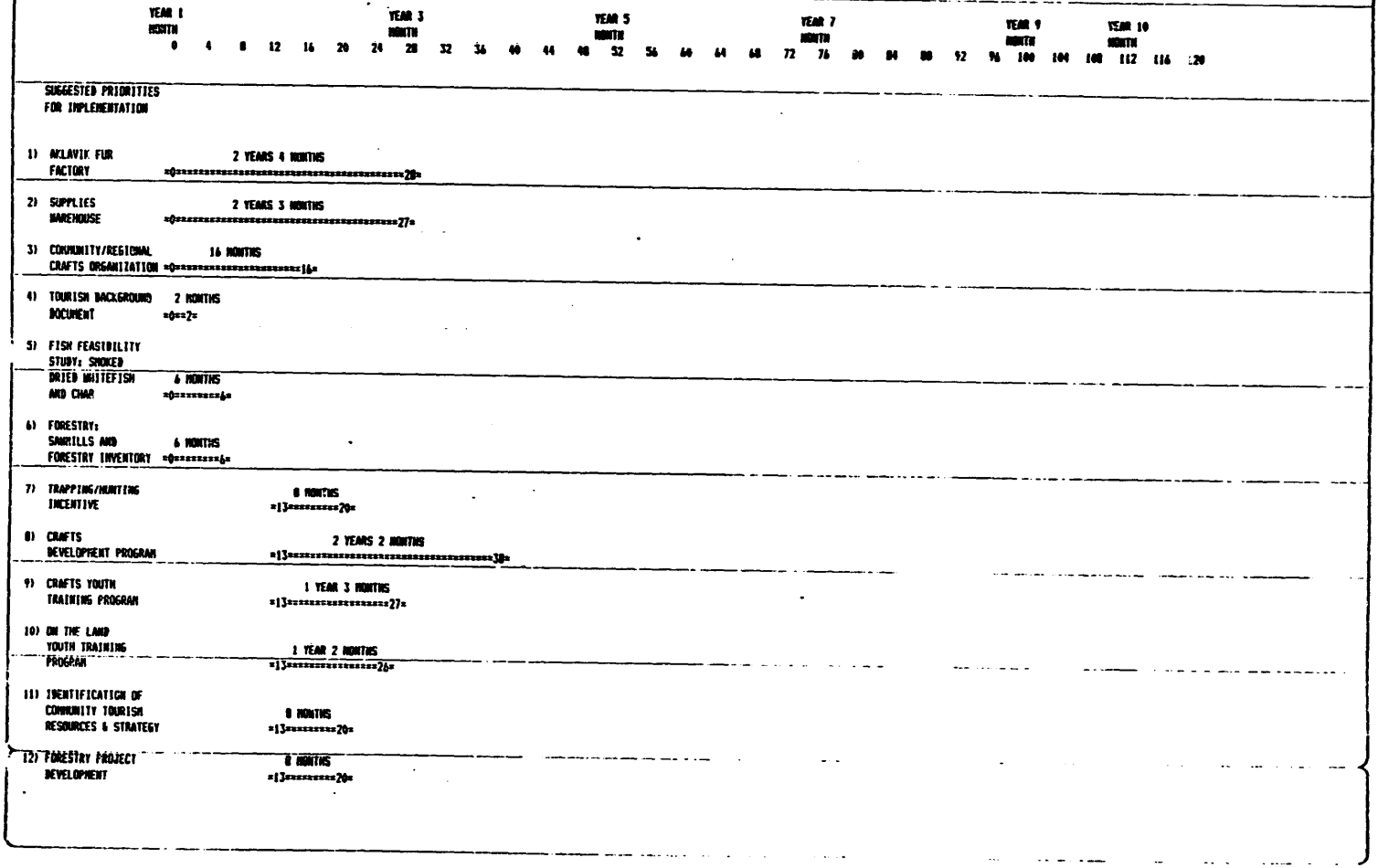
* Dene/Metis members to be from both the Land Use Authority and the Board of the Regional Council, appointed, for a fixed term.

* GNWT representatives to come from senior policy and management levels (deputy ministers and Inuvik Regional Superintendents of both departments)

Appendix 8.3

Ten-Year Development Plan

TEN (10) YEAR DEVELOPMENT PLAN



APPENDIX 8.4

Fee-Yee Report, Sections 2, 3, 4 & Appendix 2

FINAL REPORT

Analysis of Survey Results for MacKenzie Delta Regional Council

December 15, 1985

FORT GOOD HOPE
Northwest Territories
Canada X0E 0H0
Tel. (403) 598-2700
Telex 043-44317

2. ANALYSIS OF SURVEY RESULTS

2.1 Introductory note on terminology

Throughout the report, the terms "informal economy" and "formal economy" are used.

"Informal economy" is a term widely used to refer to the established patterns of distribution of goods and services that form the economic base of indigenous cultures, which traditionally have not involved the exchange of money. Although money does frequently change hands in return for goods or services today, the exchange is still "informal" because there is no documentation - no receipts, no ledgers, no tax records. Thus, these exchanges are generally not reflected in the statistical documentation upon which macro-economic analyses are generally based.

In this report the "formal economy" is thus assumed to be the mainstream Canadian economy; the documented system of financial transactions which in conventional terms are considered to comprise our economy.

2.2 Hunters/Trappers

The average age of respondents was 48 years. The hunters/trappers surveyed clearly spend a significant portion of their time in land-based activities, although the actual patterns vary widely depending on other employment, on family involvement in the wage economy, on economic capability to outfit themselves, and most likely on personal preference as well.

2.2.1 Patterns of harvesting

In attempting to establish harvesting patterns, a distinction must be made between hunting and trapping. Hunting is an activity that can be carried on year-round regardless of other economic activities (i.e. wage employment), as it requires the investment of short concentrated amounts of time. Trapping, on the other hand, to be commercially viable requires a fairly extensive commitment of

time on a regular basis over weeks and/or months. To maintain a bush camp requires a full-time commitment, because there is a whole range of support activities required in addition to actual trapping (hauling water, obtaining firewood, etc.).

Field workers were asked to classify trappers as belonging to one of three categories: full-time, part-time or week-end. In most cases the field workers did not indicate these categories in their notes, and it is easy to understand why. Trapping patterns are not easily categorized by the same terms we use to describe levels of participation in wage employment. Trapping patterns for those interviewed varied widely. Some live at trapping camps on a seasonal or year-round basis. Others live in town but trap full-time. Some work full-time or part-time in town and trap on week-ends or days off. Some work out of town on a rotational basis (e.g. seismic camps) and trap from town during their time off.

In analyzing the questionnaire results, it was decided to limit the categorizations of trappers to two categories only - full and part-time. Arbitrary definitions were used to define the categories. Full time trappers were considered to be those who spend at least two seasons of the year living at trapping camps. All others were considered part-time, because even if they live in town and trap on a full-time basis, they are not engaging in the range of support activities required to keep a bush camp running. Because most trappers did not respond to the question regarding wage employment, the division into categories was based on information collected in response to questions on how often trappers travelled back and forth to town; location of traplines, etc.

The variety of trapping patterns documented emphasizes the need for flexibility in government assistance programs to trappers, so that all who wish to actively participate in trapping as a commercial activity can benefit, without meeting rigid criteria that may not reflect actual trapping patterns.

2.2.2 Land use

The majority of respondents indicated that they do have trapping cabins which may be used as a base for trapping activities. The number of trappers with cabins indicates that trapping and/or harvesting is perceived as a permanent rather than a temporary activity - i.e. one that will be engaged in year after year. It is doubtful if trappers would invest the time and resources required to build a cabin, if they did not intend to use it on an ongoing basis.

It would be worthwhile to compare the information collected on number and location of trapping cabins with data collected by the Dene Nation Land Use Mapping project in the mid-1970's; both to see if there is a substantial increase in number of cabins and if there are substantial changes in land use patterns indicated.

A minority of trappers indicated that they, or someone in their family, had registered traplines before the group area was introduced. For those that did, however, most also said that it was in the same area where they now trap. This leads to speculation that family groups tend to harvest on the same areas of land over long periods of time. This is probably true, because specialized knowledge regarding the land is passed down through families. For the same reason, when asked whether they would prefer to trap in another area, about half the respondents replied "no", and many indicated that this was because to trap in another area, they would have to know the land.

Among the Fort MacPherson respondents, however, there does appear to be a desire to trap elsewhere. Twenty-two MacPherson trappers answered yes to the question. Five indicated that they perceived a legal/jurisdictional barrier to trapping in other regions ("need a license" or "Yukon Territory").

2.2.3 Unit of production

It is clear from the questionnaire results that harvesting is perceived as a family activity rather than an individual activity. This conclusion is supported by answers to several questions. More often than not, hunters/trappers indicated that they take their nuclear family, members of their nuclear

family, or other relatives with them when they go trapping. In descriptions of the breakdown of activities (a question not fully tabulated due to time constraints), this fact is made very clear through the assignations of tasks. These vary from household to household but almost invariably the maintenance of the bush camp is perceived as a family group responsibility. For those trappers who say they go to trapping camps alone, or with a partner, there is still family involvement, e.g. preparation of mukluks and other necessary items by a wife or female relative.

The low response to the question about which pelts are important for home use, may indicate that this is considered women's domain. More information was obtained in the women crafts producers survey which will shed light on this subject.

2.2.4 Distribution of bush products

Responses to the question on distribution of income were consistent. Without exception, harvesters interviewed made a distinction between cash income from trapping, and bush products, especially meat. Trapping income is generally used to support the nuclear family or household; but meat is distributed according to traditional obligation patterns - i.e. to relatives, in-laws, old people, the needy, and anyone else who asks.

Distribution patterns for bush products, i.e. furs and hides, other than those sold commercially, are not clearly illustrated by the results. However, based on the response to the question on who sews the clothing items produced from bush products, one can infer that female relatives use the hides and furs to produce necessary clothing items.

2.2.5 Skill levels

To assess the set of skills that is needed to be a successful hunter/trapper requires some interpretation of survey results. Some 25 skills were identified by respondents. Skills listed fall into three basic categories: technical (e.g. how to set a trap); knowledge of animal behaviour patterns (e.g. how to track moose); and knowledge of weather and environment (e.g. how to predict the

weather). However, a closer look at the list reveals that, in fact, each of the skills named involves a complex set of experience, knowledge and interpretive capability that must be developed over the course of several years. For example, "know how to read the weather" may sound straightforward. In fact, it involves the ability to read a whole range of indicators - cloud formations, wind, animal behaviour - and evaluate them in the context of other data, i.e. time of year, previously observed weather patterns. Simple statements such as, "It's going to snow tomorrow - the lynx aren't walking around", reveal that the skills required to be a successful harvester go far beyond the technical skills of being able to set a trap or fix a skidoo.

Thus the survey results illustrate that there is a high level of professionalization associated with being a successful hunter or trapper.

2.2.6 Investment

The majority of hunters/trappers interviewed indicated quite clearly that they could not afford to trap without another source of income. Other sources relied upon include wage employment, transfer payments and government support programs.

A majority of respondents also indicated that they have problems getting supplies, with cost being the most frequently-cited problem. Cost of gas specifically was also mentioned frequently. In response to the question about problems getting to the trapline, cost of gas was cited as frequently as environmental or weather-related factors.

2.2.7 Motivation

The few trappers who were asked, "Why do you trap?", replied something like, "to make a living for my family". Yet the survey results indicate that money is not the motivating factor. In fact, there is a clear perception that other sources of income are used to support trapping activities, and that the underlying motivation to participate in subsistence activities is not a financial one. This perception is supported by the response to the question, "would you like to produce more (furs)?" In spite of all the problems cited by respondents, a majority still replied "yes". Although the data does not explicitly support

Average Outfit and Current Costs 1985

Item	Regional Avg. # Per Household	Prices Aklavik	Inuvik
skidoo	1.4	$2,350.00-4,599.00	$2,299.00-4,399.00
travel boat	1.1		2,110.00-3,395.00
rat boat	1		539.00-639.00
kicker	1.5	2,400.00 +	2,145.00-2,600.00
woodstove	1.7		
primer stove	.8	89.98-98.00	70.00-79.00
tent	1.4	425.00-449.00	379.98
rifle	1.7	300.00-800.00	259.00-769.00
22	2	75.00-200.00	59.00-239.00
shotgun	1.6	150.00-799.00	99.95-
chainsaw	1.3	429.00-500.00	354.00-635.00
sleigh	1.6		
traps	153	4.39-16.25	60.00/doz.leghold 4-17 each/conibear
nets	5.5		84.00-108.00 /100 yds.
lynx snares	37.4		3.49-4.00 /roll
rabbit snares	261.3	1.19-1.50 /roll	.79-1.10 /roll
axe	2.4	32.00-33.00	26.95-29.95
chisel	1.3	37.00-38.00	
shovel	.8		
snowscoop	1.5		

this point, it follows that the motivation to trap is not specifically linked to fur prices.

The above conclusion is supported by a growing body of social scientific literature which views native harvesting as a way of life rather than simply an economic enterprise (see references). What the current data reveal is that, at least for the present, this is still the case.

2.2.8 Fur sales

When trappers were asked where they sell furs, the most frequent answer was to the Hudson's Bay. Since it is common knowledge that the Bay prices are low by comparison to other outlets, this leads to the speculation that there may still be a high degree of dependence on the credit system, and furs are sold to the Bay to pay off debt.

The second most frequent response was the GNWT Department of Renewable Resources. It appears obvious that this is because the GNWT system yields a better price. The trade-off is that trappers have a longer wait for their money.

Statistics on total furs sold to individual vendors supplied by the GNWT indicate that, in general, the highest volume of furs is sold through the GNWT Department of Renewable Resources.

Thus it appears that most trappers sell the largest proportion of furs through the GNWT; and the smaller portion - which are used for immediate cash return or to pay off an account - are sold through a variety of vendors.

2.2.9 Support programs

A minority of trappers indicated that they rely on GNWT support programs for assistance in trapping. This is somewhat surprising since the trappers' incentive grant goes automatically to all trappers with a minimum level of fur sold in the previous year. The fact that few trappers mentioned this program may mean that the amounts are so small that they are seen as insignificant, or

Breakdown of Fur Sales by Community - 1983/84

	Inuvik	Arctic Red	Ft. McPherson	Total
GNWT	$116,649.59	$ 1,046.00	$82,561.00	$200,256.59
Semmler's	94,782.65	23,265.75	475.00	118,523.40
RDR	23,572.75	972.50	3,005.00	27,550.25
Hudson's Bay	3,586.00	1,340.00	19,756.00	24,682.00
Tetlit Co-op		400.00	5,290.00	5,690.00
Krutko's		6.00	2,266.75	2,272.75
Coppermine Co-op	470.00			470.00
Aklavik General	2.70			2.70

(based on returns from Inuvik, Fort McPherson, Arctic Red River)

that trappers simply do not know the source of the grant.

The trappers who do use GNWT support programs had concrete recommendations on how those programs could be improved. The lack of response to this and related questions by the majority of respondents probably indicates a lack of information, rather than a lack of interest.

Among the recommendations for improvement, "more money" was the most frequent response. Other recommendations included: faster processing of checks; more information made available to trappers; lower interest rates on loans; forgiveable loans; more subsidy programs to take young people on the land; and across-the-board grants for all trappers (presumably referring to trappers' advance program).

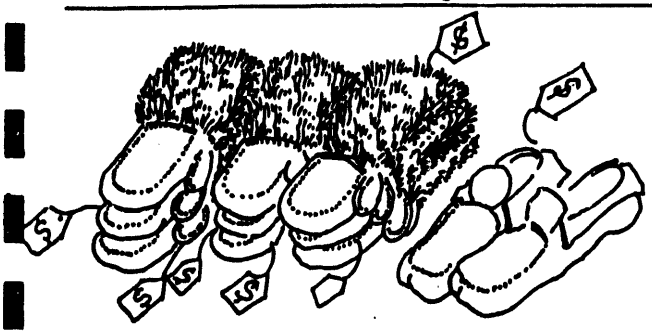
2.2.10 Training

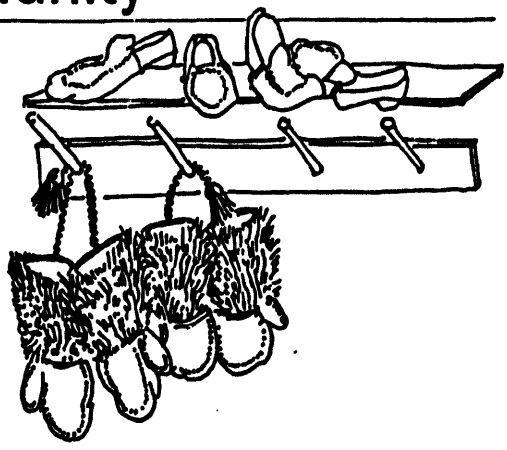
Finally, the response to the question on a trapper training program is significant for a number of reasons. It illustrates that there is still a keen interest, at least among the present sample, in trapping as a viable economic option. It also illustrates that rising costs of outfits, falling fur prices, and the spectre of the anti-trapping movement, have not apparently lessened the interest.

The response on "What is the best way to teach youth?" was universally consistent. It appears that all trappers agree that the best way to learn land-based skills is by experience. This has important implications for development of training and education programs.

In general, the results were fairly consistent among the four communities, with the notable exception of Fort MacPherson in terms of extending trapping areas. This indicates that it is possible to devise programs which can effectively address the needs of trappers throughout the Delta.

Commercial & Domestic Use of Crafts by Community





% Commercial Sales						% Domestic Use					
%	100%	10%	90%	25%	75%	50%	50%	70%	30%	75%	25%	90%	10%	100%	0%
Ft. McPherson															
1		7		1		4		2		1		2		3	
Aklavik															
2		9				2						1			
Arctic Red River															
												1		1	
Inuvik															
				1								5		2	

Respondents seemed to feel that availability of materials at lower prices through bulk buying would be a solution to the situation. Whether or not this is in fact the solution, it clearly illustrates the producers' perception that there is no profit in crafts production at current materials costs.

2.3.7 Suggestions

The suggestions given for improvement to the system of production and distribution are clear and straightforward. They include bulk buying of materials for resale at lower prices; central collection and distribution points for finished crafts; better managed crafts centres; sewing centres where women can work for a wage; and better (or standardized) prices for crafts. Further research will be required to identify priorities and feasibility.

2.3.8 Training

As with hunters/trappers, the interest in crafts training programs shows that there is still a desire on the part of most producers to further their skills, and if possible, use crafts production as a source of income. There is also a perceived need for training programs for young people, to ensure transmission of crafts skills. This includes processing and tanning hides and skins, as well as sewing, embroidery, beadwork, etc.

2.3.9 Patterns of production

Most women say they prefer to sew at home, rather than in a crafts centre. This preference has important implications for the structure of crafts production as a cottage industry. An interesting feature of survey results is the fact that a significant number of women do share their sewing with female relatives and/or friends. This is probably an extension of a traditional division of labour which allowed older women to delegate simple sewing tasks (e.g. beading an upper) to younger female relatives. However, it may also indicate a tendency towards more efficient division of labour in crafts production, which may also have implications for the structure of a cottage industry based on crafts production.

2.3.10 General remarks

There is some interest among respondents in developing new crafts for the marketplace, as well as in learning new skills which might lead to more marketable crafts (e.g. mooschair tufting).

In conclusion, it appears that the majority of women sew primarily for domestic consumption but that sewing for commercial purposes is a close second to domestic use. The primary problem in producing crafts for the marketplace is the lack of profit margin, in the way the present system is structured. Many women complained of low prices for crafts yet responses to the question on pricing indicated that the way in which prices are established is generally haphazard. It appears that women may not push for prices which reflect a fair return for their time and materials costs. Generally, there is a desire to produce more crafts for the marketplace if the problems outlined above can be overcome.

3. CONCLUSIONS

3.1 Integrity of informal economy

In spite of many obvious changes to the native economy - e.g. the introduction of credit at the store, wage employment, transfer payments and government assistance programs, modernized technology - the informal economy is still a strong and vital sector of the overall northern economic base. Central to this sector is the unit of production, which the survey results indicate is generally a household or extended family group.

Peter Usher recently provided this excellent description of the importance of the unit of production in the subsistence economy:

> "... Native hunting, trapping and fishing is a kinship-based system of production, with the household being most readily observable unit of both production and consumption. This is in contrast to most models of economic activity which differentiate between the firm (maximizing profit) as the unit of production, and the individual (maximizing utility) as the unit of consumption.
>
> "There is a further assumption that although harvesting is organized primarily on a household basis, the typical household is also engaged in other economic activity which it combines with harvesting to best advantage. For example, household income may be derived from any or all of the following sources:
> - wages and salaries
> - transfer payments (e.g. family allowance, child tax credit)
> - sale of commodities (e.g. furs, handicrafts)
> - domestic production (e.g. meat, fish, wood).
>
> "To the extent that the household is a harvesting group, it thus consists of:
> - harvesters (those actually engaged in hunting, fishing, and trapping)
> - processers (those who skin and clean pelts, butcher meat, split fish, prepare meals, etc.)
> - servicers (those who make clothing and gear, clean and maintain them, repair equipment, etc.)
> - supporters (those who contribute cash obtained from sources other than harvesting to the purchase of gear and supplies).
>
> "For a household to be a producing unit, it must have harvesters among its members. It is an advantage to have processers and servicers among its members, although if necessary these functions can be obtained by arrangement with other households or commercially. Unless a substantial amount of income from harvesting is in the form of cash, the household

> must have supporters. It is common for individual members of the household to assume more than one of the above roles, e.g. for harvesters to be processers or servicers as well, and particularly to be supporters as well. In the latter case this usually means combining harvesting on a part time basis with wage employment." (Usher, 1985).

Thus, within the unit of production each individual's contribution is vitally important. Trappers (generally men) provide food, raw skins and income from fur. Processors (generally women) provide finished skins for sale or barter, necessary clothing items, and income from crafts. Both are involved in necessary household maintenance tasks - preparation and preservation of foods, getting wood and water, etc. Members of the unit of production who are not actively participating in these activities but working and contributing income or goods, are equally important.

Although there is increased commercialization in the distribution of bush products (e.g. sale of meat and clothing items), it is apparent from the survey results that the informal exchange of goods and services is a strong economic force and is likely to remain so, at least for the foreseeable future. Thus, policies designed to stabilize and support the renewable resource economy must recognize this fact and be designed so that they do not interfere with, or in any way inhibit, this sector of the economy.

This key point must be kept in mind when taking into consideration all the recommendations outlined below.

3.2 Government support programs

Hunters and trappers could be making better use of existing government support programs. While there are certainly ways in which these programs can be expanded and improved upon, still the best possible use is not being made of currently operating programs. This appears to be due partly to choice, and partly due to a lack of information and understanding.

3.3 Need for flexibility in subsidy programs

Because of the variety of hunting and trapping patterns, and many different ways in which members within the unit of production choose to balance off subsistence activities with wage employment, there is a need for flexible subsidy and support programs for hunters and trappers, which can accommodate the varying needs of present lifestyles.

3.4 Training/Education

Both for trappers and crafts producers, there is strong support for two different kinds of training/education initiatives:

a) skills upgrading for people already involved in production, including new skills such as marketing and business management;
b) specialized training programs for transmitting skills to young people.

3.5 Patterns of land use

It appears that family groups tend to utilize the same area of land and pass knowledge and familiarity with these areas, on to younger generations.

3.6 Professional aspect of bush skills

Hunting, trapping and crafts production require years of training and experience, and rely on the development of highly specialized skills, in order to be done successfully. They should not be viewed simply as an option for people with no training in other skills areas.

3.7 Motivation

The motivating force for continued participation in land-based economic activities is not financial, but cultural. Historical data indicate that this situation does not constitute a recent development. A comparison of outfit costs and average trapping income from the early 1960's reveals the same trend (see Table 2). Thus, for at least two decades, Delta harvesters have continued

to hunt and trap not because it is financially profitable, but because it is their preferred lifestyle.

3.8 Patterns of fur sales

The most popular avenue for fur sales is through the GNWT Department of Renewable Resources, which ultimately provides the highest prices. The second largest percentage of furs is sold through the Hudson's Bay and other outlets who pay with immediate full cash value. This is probably the result of dependence on trade goods available from the Bay, and the need to either pay off one's bill with furs, or to obtain immediate cash in exchange for furs. If alternative forms of credit were available to trappers, one can speculate that the GNWT program, or a similarly structured one, would become an even more popular outlet for fur sales.

3.9 Crafts production for income

The majority of crafts produced in the Delta are produced for domestic use. However, a significant number are produced for commercial sale. Few women rely on crafts production as their sole source of income, but many do rely on crafts sales as one or several sources of income.

3.10 Problems in craft production

The problems preventing women from making money on crafts production include: high cost of materials; difficulties in obtaining materials; and low profit margins. Survey results indicate that if solutions are found to these problems, more women will become involved in crafts production for commercial sale.

3.11 Need for price increases

All evidence indicates that crafts production cannot be made commercially viable unless there is a significant, across-the-board increase in the prices charged for crafts.

3.12 Crafts for domestic use

Crafts products for domestic use will continue to be an important economic activity for many women.

3.13 Training in processing skills

Some crafts producers have difficulty in obtaining certain processed furs and tanned hides, and survey results indicate that provision of training in skills related to preparation of hides and skins for use in sewing, should be given particular priority.

Crafts Producers Costs and Profit

On an hourly basis for 3 items

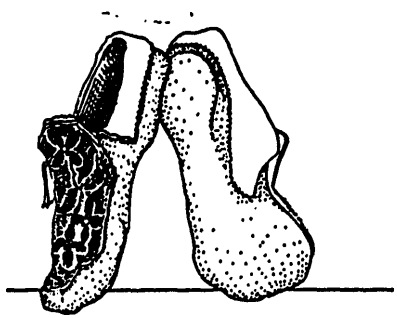
1) Mukluks (moosehide bottom, stroud top, beaver trim, beaded uppers)

Cost breakdown:	hide	$25.00
	beads/needles	7.00
	sinew	5.00
	duffle	20.00
	thread	2.00
	trim	4.00
	wool (strings)	4.00
	stroud	17.00
Total cost of materials		84.00
Average price paid to producer:		160.00
Less: materials		84.00
Profit margin		76.00
Estimated production time: 25 hours		
Profit on an hourly basis		3.04

2) Beaver mitts (men's with moosehide palms)

Cost breakdown:	pelts (2)	$75.00
	hide	10.00
	sinew	5.00
	wool	5.00
	needles	2.00
Total cost of materials		97.00
Average price paid to producer:		92.50
Less: materials		97.00
Profit margin		−4.50
Estimated production time: 10 hours		
Profit on an hourly basis		0.00

3) Moccasins (men's - moosehide with beaded uppers and beaver trim)



Cost breakdown:	hide	$40.00
	beads/needles	7.00
	stroud (uppers)	10.00
	sinew	2.50
Total cost of materials		59.50
Average price paid to producer:		75.00
Less: materials		59.50
Profit margin		15.50
Estimated production time: 20 hours		
Profit on an hourly basis		.78

Notes: 1. Cost breakdowns and time estimates compiled from survey results.
2. Prices based on information from N.W.T. Native Women's Arts and Crafts Program.

Trappers Fur Dollars and Average Income 1961 - 1983

	Year	Total Trappers	Total Fur Dollars	Average Income
Aklavik	1961-62	151	$ 58,353.00	$ 386.00
	1973-74	111	67,427.56	607.45
	1981-82	160	209,442.74	1,309.01
	1983-84	157	161,467.39	1,028.45
Arctic Red River	1961-62	34	12,335.00	360.00
	1973-74	28	13,595.55	485.55
	1981-82	31	56,264.55	1,814.98
	1983-84	23	41,320.90	1,796.56
Fort McPherson	1961-62	109	38,273.00	351.00
	1973-74	113	39,475.80	349.34
	1981-82	135	135,257.60	1,001.90
	1983-84	134	161,275.49	1,203.55
Inuvik	1961-62	71	52,717.00	742.00
	1973-74	124	70,409.50	567.81
	1981-82	103	114,747.26	1,114.05
	1983-84	145	215,898.74	1,488.96

Cost of a Basic Trapping Outfit 1965-1985

1965	
No. Per Household	Cost
120 muskrat traps	$ 112.35
2 dozen marten traps	31.00
1 dozen mink traps	24.60
1 dozen beaver traps	43.20
4 rolls snare wire	.60
22 rifle	29.95
30.30 rifle	95.00
scow	300.00
ratting canoe	250.00
10 H.P. motor	406.00
7 dogs	200.00
dog harness	50.00
2 fish nets	48.00
snowshoes	24.00
toboggan	65.00
tent	48.00
axe	5.00
Total	$1,732.70

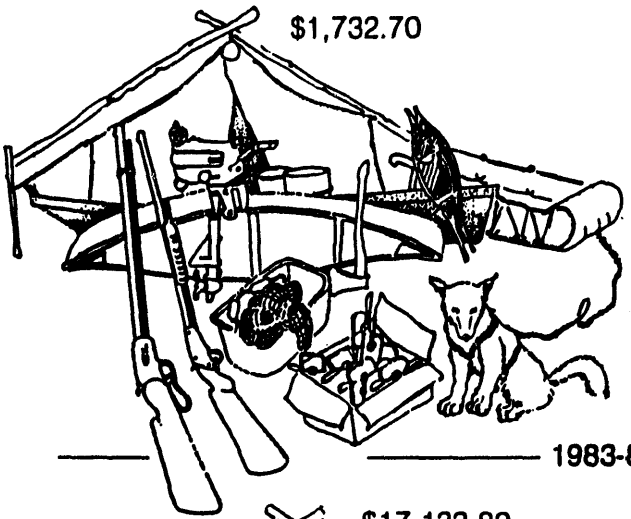
1985	
No. Per Household	Cost
156 Traps (based on avg. price for all sizes 13 doz. @ $75/doz.) Note: higher if big traps or conibears used.	$ 975.00
4 rolls snare wire 4 - lynx @ 3.75	15.00
4 - rabbit @ 1.15	4.60
2 22's @ 209.00	418.00
1.7 rifle @ 486.00	826.20
1.6 shotgun @ 469.82	751.71
1.1 speedboat @ 2,752.50	3,027.75
1 canoe	589.00
1.5 kicker @ 2,381.66	3,572.49
5.5 nets	96.00
1.6 toboggan (sleigh) @ 500.00	800.00
1.4 tent @ 417.99	585.19
2.4 axe @ 30.48	73.15
1.4 skidoo @ 3,411.75	4,776.45
1.3 chainsaw @ 479.50	623.35
TOTAL	$17,133.89

Notes: 1965 outfit and costs taken from DIAND Area Economic Survey 1965
1985 outfit and costs based on survey results and average current prices
(see chart 3)

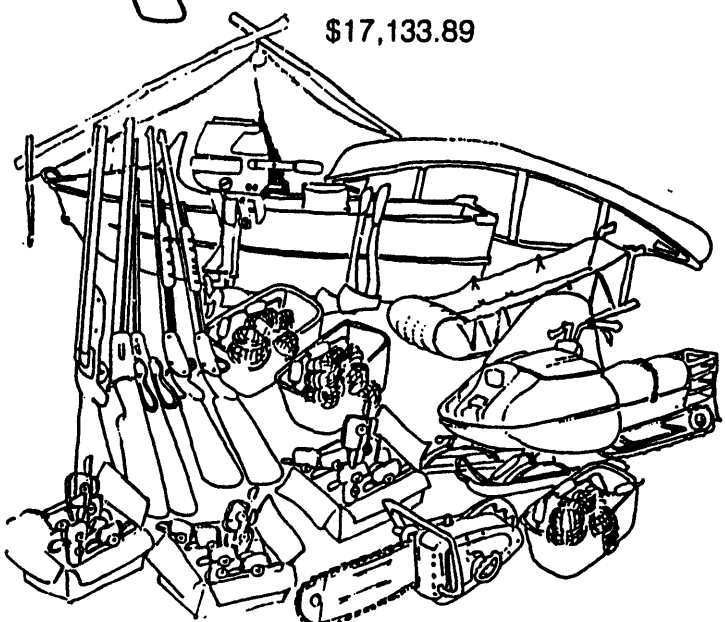
Average Outfit Cost for 4 Delta Communities

Inuvik Fort McPherson Arctic Red River Aklavik

Average Outfit	Average Income
1961-62	
$1,732.70	$ 459.75



1983-84	
$17,133.89	$1,379.38



Cost of average outfit is almost 10 times higher than 20 years ago.

Average income is only 3 times higher.

4. RECOMMENDATIONS

4.1 Further analysis to be done with existing survey results

Limited time and resources prevented the completion of numerous cross-checks which could be done with the survey results to provide more insight, and to substantiate some of the conclusions which are based in part on speculation. Cross-checks that would be useful to complete include:

4.1.2 For hunters/trappers:

a) compare depreciation costs to amount of time spent on land for each trapper, to see if there is a direct correlation;

b) compare problems cited with age of trappers to see if perceptions of problems are linked to age categories;

c) compare responses on time needed to prepare for trapping, with categorization of trappers into full and part-time, to see if there is a direct correlation;

d) see if there are direct links between depreciation times given for equipment, and either age group, or community of residence, of trappers;

e) compare trappers' outfits to fur returns, to see if there are direct links between productivity and equipment.

4.1.3 For crafts producers:

a) compare actual crafts products, with list of skills given by each respondent, to see if certain categories of skills are linked to specific crafts items;

b) cross-check responses to "would you like to get more involved in crafts production?" to age group, and community of residence, or respondents;

c) as for (d) above.

4.2 Recommendations for further research:

4.2.1 To document changing patterns of land use, the data collected in this survey on location of traplines and cabins, should be compared to data on file at the Dene Mapping Project, and other historical sources.

4.2.2 In addition to the income security program, there are other elements of the James Bay and Northern Quebec Agreement that may be applicable to goals of the Mackenzie Delta Regional Council and should be thoroughly reviewed. For example, the Cree Trappers' Association was set up to provide a support group to ensure that needed goods and services would be available to trappers. Its history and effectiveness should be evaluated.

4.2.3 A more detailed survey of Fort MacPherson trappers should be conducted to ascertain how widespread is the desire to trap in other areas, and what jurisdictional problems do in fact exist.

4.2.4 Where possible, information on wage employment patterns of the trappers surveyed should be obtained, to allow more detailed cross-checks and analysis to be done with existing data.

4.2.5 Most trappers indicated they would like to produce more furs for the market. Research should be initiated to determine historical levels of fur productions; and natural limits to production of animal populations in the region. (Note: This kind of research may be initiated by the proposed Wildlife Management Board that is to be established as a result of aboriginal rights negotiations.)

4.2.6 Prior to any attempt to propose policies on standardization of crafts prices, a thorough review should be undertaken of any past attempts to initiate standardization at the local, regional or other levels; and of any discussions, proposals, etc. prepared on the issue in the past, whether by government or other agencies.

4.2.7 A more detailed survey should be undertaken with trappers specifically to ascertain why in fact they choose to sell their furs in the way that they do - i.e. what is the rationale behind selling some furs to the Bay, others to GNWT, other to local buyers, etc.? This kind of information will be necessary to establish new and effective institutions for fur marketing.

4.2.8 A thorough evaluation should be undertaken of previous training/ education initiatives relevant to the renewable resource sector; including on-the-job training at the Aklavik Fur Shop, GNWT-sponsored trapper training programs, Native Womens' Association sponsored crafts training and moosehide tanning courses. The evaluation should include interviews with participants to identify strong and weak points of each training approach; and also should attempt to ascertain if the training helped participants to either get a job, or increase their production.

4.2.9 A more in-depth survey should be conducted among crafts producers to determine desired patterns of production - e.g. whether they want to sell only completed items; want the option of "assembly-line" sewing; want to be paid on a piece basis or hourly basis, etc.

4.2.10 Market research should be conducted in the south to determine the market both for crafts now being produced, as well as for the range of new crafts proposed by the survey. This research should also address the question of whether the marketplace can sustain the increased prices that will be necessary to encourage most women to get involved in commercial crafts production.

4.2.11 More detailed research should be conducted with prototype crafts producers to arrive at a more exact breakdown of the time, materials and costs involved in producing specific crafts items. This information will be needed to establish pricing policies for crafts in the future.

4.2.12 Other relevant elements in the James Bay and Northern Quebec Agreement should be reviewed - e.g. the provision for the Cree Trappers Association - and their effectiveness and relevance to Delta priorities evaluated.

4.2.13 A more detailed review of the limitations and problems associated with the Income Security Program should be undertaken, including the administrative adjustments that have been necessary - and a comparison to any other guaranteed income or harvesters support programs that have been implemented elsewhere.

4.2.14 An in-depth skills inventory should be conducted within the Delta to provide a data base for development of training programs.

4.2.15 To counter arguments about the cost of subsidies/support programs, research should be done to compile projects on costs to government of social assistance and other services that would be required to offset the massive unemployment and social dislocation that will result if families can't afford to go trapping.

4.3 Policy recommendations

Some of the following recommendations will require further research to be done to establish how and when they can or should be implemented. They are outlined here as a preliminary list of general recommendations derived from survey results.

4.3.1 The GNWT Department of Renewable Resources should be encouraged to publicize and make more information available on existing support programs.

4.3.2 New, more flexible subsidy programs for trappers will be required if trapping is to remain a viable economic option. This may take the form of an Income Security Program, although certain elements of the James Bay and Northern Quebec Agreement program are certainly not appropriate

for the Delta. One element of improved support programs must be a higher level of financial support than is currently provided through GNWT support programs.

4.3.3 An immediate priority should be to investigate ways to lower the price of gasoline, whether through improved subsidies, bulk purchase, or other means.

4.3.4 The feasibility of establishing a Dene financial institution should be closely examined. Such an institution could provide much-needed credit to trappers on realistic terms.

4.3.5 A better system of fur marketing is obviously needed for the Mackenzie Valley. Whether this will take the form of a northern auction, N.W.T. fur marketing board, or other collection and distribution system, will require feasibility studies and a lot of creative thinking.

4.3.6 Institutionalized systems should be set up for the distribution of goods required by hunters, trappers and crafts producers, at fairer prices. These might take the form of co-operatives, community-owned stores, support associations, or other. They should include central collection and distribution points for pelts and hides; institutionalized processing; and inter-settlement trade in bush products.

4.3.7 A system should also be established for the collection and distribution of bush products - e.g. moose hides to be tanned.

4.3.8 A central distribution system should be established for marketing of crafts products. This could be done through an institution such as a marketing board, or other option. Standardization of prices would be one responsibility of such an institution.

4.3.9 Publicity and promotional programs should be developed to increase the market for northern crafts and to offset the backlash that may result from higher crafts prices.

4.3.10 The introduction of new crafts to the marketplace should be vigorously pursued.

4.3.11 Training and upgrading programs for trappers and crafts producers are a priority. Separate programs must be established for young people to ensure the transmission of essential skills.

4.3.12 The baseline data research recommended by Feit (see Appendix 2) to address the shortcomings perceived in the James Bay Income Security Program should be initiated in anticipation of the establishment of some kind of income support programs for Dene/Metis trappers.

4.3.13 Work should be undertaken to establish a regional cost-of-living index which reflects both local prices and the specific needs and priorities of harvesters, e.g. a high dependence on gasoline and oil.

4.3.14 Government support for the transmission of traditional skills must be upgraded to equal existing support levels for basic upgrading and job market-oriented skills (e.g. welding, office practice, etc.). This will require a concerted lobbying effort. Co-operation should be sought from the Dene Nation, Metis Association, Dene/Metis Negotiations Secretariat, and other Regional Councils.

APPENDIX 2:

The James Bay Income Security Program (ISP)

The ISP was negotiated and established under the James Bay and Northern Quebec Aboriginal Land Claims Agreement (JBNQA). ISP is one of an integrated set of provisions designed to assure the continuation of hunting, fishing and trapping as a viable economic option for those Cree who choose to practice them as a way of life at present or in the future.

A.2.1 Background

The situation facing James Bay Cree hunters and trappers prior to the negotiation of the JBNQA was in many ways parallel to the situation of Mackenzie Delta hunters and trappers today. Problems impacting on the subsistence economy included accelerating change in environmental and socio-economic conditions in the region, including increasing physical intrusion of Euro-Canadians into Cree territory; and the growing difficulty of meeting the economic costs of hunting and trapping.

The first range of problems had four foci for which the Cree sought solutions when the JBNQA was negotiated in 1974 and 1975: recognition of aboriginal hunting rights; effective involvement in wildlife and environmental management; priority allocation of wildlife resources to indigenous hunters; and regulation of the environmental impact of development activity (Feit, 1982).

The second range of problems stemmed from increasing reliance on the kind of technological transformations which have become widespread in subsistence economies, and the associated need for cash support. Feit explains, "Thus, the Cree were trying to maintain a subsistence economy in the midst of an increasing interaction and dependence on government programs, on cash, and on goods, services and employment in the regional market economy. The results were mixed, and a significant number of people were being driven out of subsistence production in the process ...

"To summarize, there were two groups of problems: those directly related to the intrusion of Euro-Canadians into the region and focusing on hunting rights, the political processes of regulating sport hunting, managing wildlife, and regulating the impacts of development; and those that were more directly economic, involving assurance that there would be adequate cash flows at critical times of the year, and provision of necessary goods, services and infrastructure for efficient use of these cash incomes.

"These problems called for new means of resolving the hunters' problems that would not enhance the process of growing dependency on external conditions, especially government policies and world markets." (Feit, 1982)

Thus, Feit points out, the effectiveness of the ISP depended on the integration of the program with other elements of the settlement which would guarantee political rights of the Cree to hunt, to control development and to manage their resource base. The program could not stand in isolation of these other factors.

Another constraint on the effectiveness of the ISP, according to Feit, was the availability of the goods, services, and infrastructures necessary to enable hunters/trappers to make effective use of ISP funds. Thus, other provisions in the settlement specifically provided for the creation of support groups to address these elements (e.g. Cree Trappers Association).

Some important features of ISP:

1. It exists both through the JBNQA, and through Quebec law designed to give legislative force to the JBNQA, and therefore cannot be changed without Cree consent. This provision assures that ISP is not treated as a standard government program which can be changed unilaterally by the government.

2. ISP beneficiaries have the right to benefit from ISP so long as they meet the criteria for eligibility.

3. ISP is not administered by the government (although it is funded by Quebec government), but by a separate corporate entity established for that purpose (the Cree Income Security Board).

4. Although the Board operates out of a regional office, it maintains staff and offices in each Cree community.

A.2.2 Structure

1. Eligibility is based on a beneficiary unit, defined as being either an adult individual, or a family of one adult with consort and/or one or more dependents. Age of adulthood is 18 years; there is no defined limit for retirement.

2. There are two general criteria, and five additional criteria, for determining eligibility of potential beneficiaries.

General criteria: Single individuals and/or family heads must spend at least 120 days in harvesting and related activities, of which at least 90 are spent away from the settlement, in order to be eligible for the following year. Harvesting activities are defined as all activities involved in the exercise of hunting, fishing and trapping rights, thus including travel, camp and household maintenance, food preparation, equipment preparation, making of handicrafts, etc.

The second general criteria provides eligibility for those who derive the greater part of their annual income from harvesting and related activities.

Exceptional criteria provide for individuals who, due to specified special circumstances, cannot meet either of the regular criteria for a coming year. Special circumstances include: injuries resulting from accidents, or other illness; voluntary decrease in harvesting to allow animal populations to stabilize; involvement in upgrading or training program; temporary employment on a community improvement project.

Eligibility for one year is determined by activities in the previous year. Thus, a new beneficiary or former beneficiary who has not maintained eligibility, must practise harvesting for one year to become eligible.

3. Calculations of benefits: Determination of benefits is based on two calculations:

a) per diem payment made to the individual, or family head and consort, for every day the greater part of the daylight hours of which is spent outside a permanent settlement in pursuit of harvesting-related activities;

b) guaranteed minimum amounts based on a calculation involving family size and other income.

The per diem payments are the largest portion of total payments under ISP, accounting for 75% of all payouts. This makes clear why ISP is not a classic guaranteed income scheme; but rather a cash support for performance of harvesting and related activities.

The guaranteed amounts supplement the payments to families with high expenses, and to families who may have just entered the program by meeting minimum time criteria.

It should be noted that payments are not linked to harvest per se, but to the pursuit of the whole range of subsistence/bush-related activities.

Actual amounts are indexed to cost of living. Payments are made four times per year (September 1, January 2, April 1 and July 1), thus reflecting seasonal needs better than welfare or other government programs.

A.2.3 Impacts of the Program (based on Feit, 1984)

Feit summarizes the impacts of the ISP as follows:

1. ISP has increased the number of Cree people who make hunting their main activity by about one-third. Data show that many of the people who took up hunting again were those who had hunted in the past; rather than young people new to harvesting activities.

2. ISP has enhanced traditional social forms and practices. There has been a modest increase in the number of families going into the bush in groups. There have also been modifications in social organization - i.e. new forms of bush camps are developing (e.g. located with road access for frequent travel back to settlement).

3. There have been changes in social organization at the community level, related to the emphasis which the growth of hunting activity has put on hunting territories. Community level decisions concerning hunting land and wildlife have become more formalized, as a result of local initiative.

4. The amount of time hunters spent in the bush increased significantly with the introduction of ISP, and has risen slowly since the initial increase.

5. There is an apparent cultural revival stemming from people spending more time in the bush - e.g. increases in production of bush housing and clothing, bush education and traditional medical practices. Communities have re-scheduled school years to arrange school breaks during appropriate hunting seasons.

6. There have been substantial increases in the use of goods and services imported from the industrial economy. Major expenditures have been on skidoos, and charter airplane service. General standard of living has increased.

7. ISP has led to a new demand for community-based organizations to help cut the costs of the above services.

8. There have been relatively few economic spin-offs from the increase in hunting expenditures for the Cree cash economy.

9. There has been no reduced level of participation in the wage economy by the majority of ISP beneficiaries.

10. ISP has allowed the hunting sector to expand during a period of recession in the employment/enterprise/administrative sector. People speculate that the rapid rise in the number of young people entering the program is related to declines in alternative economic opportunities.

11. ISP has created an increased confidence in the viability of the hunting way of life, and this is reflected in an increased encouragement to young people to pursue that way of life.

12. ISP has not resulted in any over-utilization of game resources, and the Cree system of hunting territory management has generally continued to work to regulate harvests and conserve wildlife.

13. ISP has resulted in a more regular and intensive use of more distant hunting territories, which distributes harvesting pressure more widely; but it has not equalized access to all lands (due to costs of going farther).

A.2.4 Aspects of ISP Which Have Been Identified as Problems

1. Communities generally feel that ISP benefits are insufficient. Two reasons are cited:

a) the high cost of imported technology and food; and

b) the increased cost of living in settlements.

Hunters report that the costs of goods and services have risen more quickly than ISP benefits. One problem here is that ISP benefits have been indexed to the Canadian cost of living, which does not necessarily reflect the kinds of expenditure that hunters and trappers make. For example, Cree harvesters probably spend a disproportionate amount of their income on gas. Feit also points out that during the period when the Canada-wide cost of living rose by 90%, the costs of transportation throughout Canada rose by 110% and the cost of energy by 180%. These costs probably rose even more rapidly in the north where they are compounded by increased transportation costs.

Thus Feit recommends having detailed information on hunters' costs and household budgets before beginning negotiations on support levels. He also notes that the JBNQA provides for the establishment of a local cost of living index, which would better reflect real cost increases to harvesters.

Feit: "In summary then, it would appear that ISP type programs could be improved by: having extensive data on which to base initial benefits levels; having an agreed upgrading take place after a program had been running and monitored for several years, and after beneficiaries had decided upon appropriate levels; having a general provision for revision and upgrading from time to time; and having a specified set of circumstances under which such revision was mandatory."

2. Indexation levels of ISP may not be working to fully protect the benefits levels from annual changes in the cost of goods and services the beneficiaries purchase. As pointed out above, ISP is tied to the Canada-wide CPI, which may be inappropriate. Secondly, the CPI is not responsive to the disproportionate dependence on transportation and fuel

costs for harvesters.

Feit recommends that indexing reflect the real changes in the cost increases experienced by harvesters.

3. The highly variable costs of transportation are not equalized by ISP payments. Thus, hunters are not widely distributed over the territory.

Feit recommends that a travel equalization element be added to ISP.

4. The benefits structure provides inadequate benefits to single parent families and mature single adults.

5. Cree hunters consider the deduction of part of their fur income from their ISP benefits to be inappropriate. This provision has apparently led to a widespread form of non-cooperation with ISP; e.g. hunters do not fully report their fur returns.

6. Because of the way the benefits program is structured, events which force families to return to the settlement at short notice - e.g. sickness, death, pregnancy - can cause a decline in family income.

7. The inflexibility in eligibility criteria has created problems for some individuals, and may in fact have prevented more young people from entering the program. The criteria also make it difficult for people to shift from wage employment to hunting, which many may desire to do depending on various circumstantial factors.

8. There is a perceived need for more public awareness/education on the program.

9. There is also a perceived need in some regions for more formal apprenticeship programs for young adults exploring a commitment to intensive harvesting as an employment option.

10. Some beneficiaries have expressed the view that they should be more actively involved in running the program.

11. The single greatest problem with the ISP since its implementation has been the upper limit on the number of paid man-days, and therefore on the growth of total costs.

12. Funding for the Cree Trappers Association has been erratic and difficult to arrange, which has impacted on the effectiveness of the ISP itself.

A.2.5 Potential Problems

However, Cree leaders have recently expressed fears that perhaps the ISP has been too successful (personal communication). As the Cree population grows to perhaps its largest size ever, and as more and more young people take advantage of the ISP to pursue traditional economic activities, there is a growing concern that the land may not be able to sustain intensive hunting and trapping by all those who may choose to live the traditional lifestyle.

Thus, some Cree leaders are now talking about the need to implement quota systems, or rotational systems, which would regulate the number of people trapping and hunting intensively at any given time.

At the same time, the leaders have recognized that they will have to develop other options to offer young people who may be turned away from living off the land if the sustainable limits of the natural resources are reached.

It is thus particularly crucial that the Delta Regional Council initiate research to assess realistically the potential of the land to support various renewable resource based activities, as part of the overall plan to develop and implement programs based on renewable resources.

APPENDIX 3:

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APPENDIX 8.5

Guidelines for Project Summaries

8.5 Guidelines for Project Summaries

Each of the seventeen projects proposed in the Economic Development Plan will eventually be submitted for funding, according to the priorities identified by the Mackenzie Delta Regional Council as summarized in the Two-Year Plan contained in Section 2.2 of this report. For most of these projects, detailed information is provided in the main body of the report. The purpose of this appendix is to provide an outline or guide to a suggested format for project summaries for their submission to funding agencies, and to provide one example from among the seventeen proposed projects.

The following is the suggested outline for the project summaries:

(1) Title.

(2) Introduction/Rationale. This component provides information on the history of the activity in the Delta, background statistical and/or other research, an assessment of its importance to the Delta economy, and a rationale for why it should be implemented.

(3) Objectives. The specific objectives of the project are outlined here.

(4) Phases/Workplan. The overall workplan is presented, according to the phases identified for implementation and summarized from the more detailed descriptions of the phases contained in the main body of the report.

(5) Budget. A summary of the budget for each phase will be made. The budgets presented in the main body of this report are for the most part in summary form, based on assessment of costs as of December 1985. The budgets are thus in the nature of target anticipatd figures, which will have to be refined further according to new information, when the project is submitted for funding at a later date.

(6) Time Schedule. The anticipated time for completion of each phase will be summarized here, using the time chart already drawn up for each project as contained in the main body of the Development Plan.

(7) Anticipated Results/Impacts. The anticipated results in terms of jobs created, infrastructure and/or services provided, numbers of people and type of training given, etc., will be summarized.

The following is a summary of the On-The-Land Programs contained in the Fur Industry section of the Development Plan.

Suggested Project Summary Format

TITLE: On-The-Land Programs

INTRODUCTION: Increasing settlement in the communities and education of young people in the Euro-Canadian school system has meant that the traditional skills of living on the land are not being transmitted from one generation to the next. Young people must be trained in the renewable resource economy in order to provide them with an option to the boom and bust cyclical nature of the non-renewable resource economy.

OBJECTIVES: The objectives of this program are:

(a) to establish effective education programs for training young people in all aspects of their traditional culture -- hunting, trapping, fishing, crafts production, traditional medicine, etc. This training would be provided at three levels: In-School Program, Bush Camp Program, and Apprenticeship Program.

(b) to help children in the Delta build a strong sense of their history and native identity through participation in traditional activities.

(c) to gain recognition among young people of the value and skills of hunters and trappers and people who live on the land.

PHASES:

Phase 1: Community Consultations and Program Design.

In each of the Delta communities, consultations and research will take place in the following steps:

(a) meetings with HTA, Band and Settlement Council, LEA, school teachers, etc.;
(b) research on other programs;
(c) preparation of program content options and proposals;
(d) communty workshop to finalize program.

Phase 2: Regional Workshop for the purpose of

(a) sharing ideas and information;
(b) evaluating existing programs and efforts;
(c) developing regional guidelines for On-The-Land Programs.

Phase 3: Proposal Writing for Permanent Programs.

Phase 4: Fund-Raising for Permanent Programs.

BUDGET (approximate):		
	Phase 1	$50,000
	Phase 2	$ 5,000
	Phase 3	---
	Phase 4	---
		$55,000

TIME SCHEDULE: The time chart in the main body of the Economic Plan will be duplicated here.

ANTICIPATED RESULTS/IMPACTS: The anticipated short-term result of the On-The-Land Programs will be the establishment of on-going training programs at varying degrees of skill levels for school-age children in the Delta communties in all aspects of living on the land. The anticipated longer-term impacts on the Delta children will hopefully be the development of pride in and a greater sense of their native identity, and the development of their ability to gain at least a part of their living from the land.

Appendix 8.6

Calculation of Prices in 1981 Constant Dollars

Appendix 8.6

Calculation of Prices in 1981 Constant Dollars

To compare figures over a substantial time period (in this case, ten and twenty years), it is necessary to adjust for inflation. These calculations allow us to compare the purchasing power of trappers' costs and incomes over the twenty-year period examined.

In this report, 1981 was taken as the base year. Calculations were made using Statistics Canada tables of purchasing power factors by monthly and annual average. For example, these tables show that a dollar in June 1981 was worth $3.165 in June 1965, but only $0.786 in June 1985. The table showing purchasing power factors for the years 1914-1986 is attached at the end of this section.

The paragraphs below explain the calculations used in each chart of this report.

Table 3.1: Fur Returns and Trapper Participation, 1974/75 to 1984/85. Each figure was multiplied by the Purchasing Power factor for January of the first year. For example, Aklavik's fur returns in 1974/75 averaged $78,816.70 in 1974/75 prices. To adjust for inflation, this dollar figure is multiplied by the purchasing power factor of 200.4 cents ($2.00), as listed in the Statistics Canada table for January 1974, yielding $157,633.40 in 1981 constant dollars. Similarly, 1979/80 figures were multiplied by the purchasing power factor for January 1979 (129.7 cents, or $1.30 when rounded to the nearest cent).

Table 3.2: Volume and Prices of Fur Returns Per Species, NWT, 1974/75 to 1984/85. The purchasing power factor for January of the first year was applied to each dollar amount, as in Table 1 above.

Table 3.6: Total Fur Dollars and Average Trapper's Incomes, Selected Seasons, 1961/62-1983/84. The purchasing power factor for June of the first year was applied to each dollar figure -- total fur dollars, and average income. For example, total fur dollars in Aklavik in 1961/62, $58,353.00,

was multiplied by the purchasing power factor of 316.5 cents ($3.17) for June 1961 of the Statistics Canada tables (the fourth digit rounded to the nearest cent). The 1983/84 figures are calculated using the purchasing power factor for June 1983 ($0.85, rounded to the nearest cent).

Table 3.7: 1984/85 Fur Sales by Buyer, Three Communities. The dollar figures in this table are not adjusted for inflation, as the comparison is among four communities within a single year.

Table 3.5: Cost of a Basic Trapping Outfit, 1961-1985. 1961 prices are adjusted to 1981 constant dollars by application of the purchasing power factor for June 1961 ($3.17, rounded to the nearest cent). 1981 prices are adjusted by application of the purchasing power factor for June 1981 ($0.79, rounded to the nearest cent).

The table on Average Outfit and Current Costs, 1985. The dollar figures in this table are not adjusted for inflation, as the comparison is among two communities (Aklavik and Inuvik) within a single year.

Chart 3.1: Average Outfit Cost for Four Delta Communities. 1961/62 and 1983/85 figures for average outfit costs are taken from Chart 1. The 1961/62 and 1983/84 Delta average income figures were calculated by taking the average of the four community average income figures from Table 3.

Purchasing power of the consumer dollar expressed in cents, compared to 1981

Le pouvoir d'achat du dollar à la consommation, (en cents) par rapport à 1981

	Jan. Janv.	Feb. Fév.	March Mars	April Avril	May Mai	June Juin	July Juillet	August Août	Sept. Sept.	Oct. Oct.	Nov. Nov.	Dec. Déc.	Annual Av Moyenne A
1914	819.7	819.7	819.7	826.4	840.3	826.4	840.3	819.7	819.7	813.0	813.0	813.0	822.6
1915	813.0	800.0	813.0	813.0	813.0	813.0	813.0	813.0	813.0	800.0	787.4	787.4	806.6
1916	781.2	769.2	769.2	763.4	763.4	757.6	751.9	746.3	724.6	719.4	699.3	689.7	744.6
1917	671.1	666.7	657.9	649.4	625.0	621.1	621.1	621.1	617.3	606.1	598.8	595.2	629.2
1918	591.7	581.4	578.0	574.7	568.2	558.7	555.6	540.5	540.5	531.9	529.1	526.3	556.4
1919	520.8	523.6	529.1	523.6	512.2	507.6	505.0	492.6	492.6	492.6	490.2	483.1	506.1
1920	467.3	456.6	444.4	436.7	425.5	421.9	421.9	423.7	429.2	431.0	436.7	444.4	436.6
1921	448.4	456.6	471.7	483.1	492.6	510.2	512.8	512.8	507.6	515.5	526.3	526.3	497.0
1922	526.3	531.9	534.8	543.5	546.4	546.4	546.4	543.5	543.5	543.5	543.5	543.5	541.1
1923	540.5	540.5	531.9	540.5	543.5	543.5	546.4	540.5	540.5	534.8	534.8	534.8	539.4
1924	540.5	540.5	543.5	549.4	555.6	558.7	558.7	549.4	549.4	549.4	546.4	546.4	549.0
1925	543.5	540.5	543.5	546.4	549.4	549.4	549.4	546.4	546.4	543.5	534.8	531.9	543.8
1926	534.8	534.8	534.8	537.6	537.6	540.5	537.6	540.5	543.5	543.5	543.5	540.5	539.1
1927	540.5	543.5	546.4	549.4	549.4	549.4	546.4	549.4	549.4	549.4	546.4	546.4	547.2
1928	543.5	543.5	546.4	546.4	549.4	549.4	549.4	543.5	543.5	540.5	543.5	543.5	545.2
1929	543.5	543.5	543.5	546.4	543.5	543.5	543.5	534.8	534.8	531.9	531.9	529.1	539.2
1930	529.1	529.1	531.9	537.6	537.6	537.6	543.5	543.5	555.6	555.6	555.6	561.8	543.2
1931	568.2	574.7	584.8	588.2	595.2	606.1	609.8	606.1	613.5	625.0	625.0	625.0	601.8
1932	636.9	645.2	649.4	649.4	666.7	671.1	671.1	666.7	671.1	675.7	675.7	680.3	663.3
1933	684.9	689.7	694.4	694.4	704.2	704.2	704.2	689.7	689.7	694.4	694.4	694.4	694.9
1934	689.7	684.9	675.7	680.3	689.7	689.7	689.7	684.9	684.9	684.9	684.9	684.9	685.4
1935	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	680.3	675.7	671.1	671.1	681.4
1936	671.1	671.1	671.1	675.7	675.7	675.7	666.7	666.7	666.7	662.3	662.3	662.3	669.0
1937	657.9	657.9	657.9	657.9	649.4	649.4	645.2	641.0	641.0	636.9	636.9	636.9	647.4
1938	641.0	641.0	636.9	636.9	641.0	641.0	636.9	636.9	641.0	645.2	645.2	649.4	641.0
1939	649.4	649.4	649.4	649.4	649.4	649.4	649.4	649.4	649.4	636.9	632.9	632.9	645.6
1940	632.9	632.9	625.0	625.0	625.0	625.0	621.1	621.1	613.5	613.5	609.8	606.1	620.9

Purchasing power of the consumer dollar expressed in cents, compared to 1981

Le pouvoir d'achat du dollar à la consommation, (en cents) par rapport à 1981

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual Av
	Janv.	Fév.	Mars	Avril	Mai	Juin	Juillet	Août	Sept.	Oct.	Nov.	Déc.	Moyenne A
1941	606.1	606.1	606.1	606.1	598.8	591.7	584.8	578.0	571.4	568.2	565.0	568.2	587.5
1942	568.2	568.2	565.0	565.0	565.0	561.8	555.6	555.6	558.7	555.6	549.4	549.4	559.8
1943	558.7	558.7	558.7	552.5	549.4	549.4	546.4	546.4	543.5	543.5	543.5	543.5	549.5
944	546.4	546.4	546.4	546.4	546.4	546.4	546.4	546.4	546.4	546.4	546.4	549.4	546.6
1945	549.4	546.4	546.4	546.4	546.4	543.5	540.5	540.5	543.5	543.5	543.5	543.5	544.5
1946	543.5	543.5	540.5	537.6	534.8	526.3	520.8	518.1	518.1	512.8	512.8	512.8	526.8
1947	512.8	510.2	505.0	500.0	490.2	483.1	478.5	478.5	467.3	458.7	454.5	446.4	482.1
1948	440.5	434.8	432.9	431.0	425.5	421.9	416.7	414.9	411.5	409.8	409.8	411.5	421.7
1949	409.8	409.8	411.5	411.5	411.5	409.8	408.2	406.5	406.5	404.9	404.9	406.5	408.4
1950	408.2	406.5	404.9	403.2	403.2	401.6	396.8	395.3	392.2	384.6	383.1	383.1	396.9
1951	378.8	374.5	369.0	365.0	363.6	358.4	355.9	353.4	350.9	348.4	346.0	346.0	359.2
1952	344.8	347.2	349.6	349.6	352.1	352.1	352.1	352.1	352.1	352.1	352.1	352.1	350.7
1953	352.1	353.4	355.9	355.9	357.1	355.9	354.6	352.1	352.1	349.6	352.1	352.1	353.6
1954	352.1	352.1	353.4	353.4	353.4	352.1	352.1	348.4	349.6	349.6	349.6	350.9	351.4
1955	350.9	350.9	352.1	352.1	350.9	352.1	352.1	350.9	349.6	349.6	349.6	349.6	350.9
1956	349.6	350.9	350.9	350.9	350.9	346.0	344.8	342.5	343.6	341.3	339.0	339.0	345.8
1957	339.0	339.0	339.0	337.8	337.8	335.6	335.6	333.3	331.1	331.1	331.1	332.2	335.2
1958	331.1	330.0	328.9	326.8	326.8	326.8	327.9	326.8	324.7	323.6	323.6	323.6	326.7
1959	323.6	324.7	325.7	325.7	324.7	326.8	324.7	323.6	320.5	318.5	318.5	319.5	323.0
1960	320.5	320.5	321.5	320.5	320.5	319.5	320.5	319.5	318.5	315.5	315.5	315.5	319.0
1961	316.5	316.5	316.5	316.5	316.5	316.5	316.5	316.5	316.5	315.5	314.5	314.5	316.0
1962	314.5	314.5	314.5	313.5	313.5	312.5	311.5	310.6	311.5	310.6	309.6	309.6	312.2
1963	309.6	309.6	309.6	308.6	308.6	307.7	305.8	304.9	305.8	305.8	304.9	304.0	307.1
1964	304.0	304.0	303.0	302.1	302.1	302.1	300.3	300.3	301.2	301.2	300.3	298.5	301.6
1965	297.6	297.6	297.6	296.7	295.9	293.3	292.4	293.3	293.3	293.3	291.5	289.9	294.4
1966	289.0	287.4	286.5	284.9	284.9	284.1	283.3	281.7	281.7	280.9	280.9	280.1	283.8
1967	279.3	279.3	278.6	276.2	275.5	274.0	271.7	270.3	271.0	271.0	270.3	268.8	273.8
1968	267.4	267.4	266.7	265.3	265.3	263.9	262.5	261.8	261.1	260.4	259.1	258.4	263.3
1969	257.7	257.7	256.4	253.8	253.2	251.3	250.0	249.4	249.4	249.4	248.1	246.9	251.9
1970	246.3	245.7	244.1	243.9	243.9	243.3	242.1	242.1	242.7	242.7	242.7	243.3	243.6
1971	242.7	241.5	241.0	239.2	238.1	217.5	235.8	234.2	234.7	234.2	233.6	232.0	237.0
1972	230.9	230.4	229.9	228.8	228.3	228.3	225.2	223.7	222.7	222.7	222.2	220.8	226.2
1973	218.8	217.4	216.9	214.6	213.2	211.0	209.2	206.6	205.3	204.9	203.3	202.0	210.3
1974	200.4	198.4	196.5	195.1	191.9	189.4	188.3	186.2	185.2	183.5	181.5	179.9	189.7

Purchasing power of the consumer dollar expressed in cents, compared to 1981

le pouvoir d'achat du dollar à la consommation, (en cents) par rapport à 1981

	Jan. / Janv.	Feb. / Fév.	Mar. / Mars	April / Avril	May / Mai	June / Juin	July / Juillet	Aug. / Août	Sept. / Sept.	Oct. / Oct.	Nov. / Nov.	Dec. / Déc.	Annual Av / Moyenne A.
1975	178.9	177.6	176.7	175.7	174.2	171.8	169.5	167.8	167.5	165.8	164.5	164.2	171.2
1976	163.4	162.6	162.1	161.3	160.0	159.2	158.7	158.0	157.2	156.2	155.8	155.0	159.1
1977	153.8	152.4	150.8	149.9	148.8	147.7	146.4	145.8	144.9	143.7	142.7	141.6	147.4
1978	141.2	140.3	138.7	138.3	136.4	135.3	133.3	133.2	133.5	132.1	131.1	130.7	135.3
1979	129.7	128.5	126.9	126.1	124.8	124.2	123.3	122.8	121.8	120.9	119.8	119.0	124.0
1980	118.3	117.4	116.1	115.5	114.2	112.9	112.0	111.0	110.0	109.1	107.6	107.1	112.6
1981	105.7	104.6	103.3	102.5	101.6	100.0	99.2	98.4	97.8	96.8	96.0	95.5	100.0
1982	94.9	93.7	92.6	92.1	90.8	89.9	89.4	89.0	88.6	88.0	87.4	87.4	90.3
1983	87.6	87.3	86.4	86.4	86.1	85.2	84.8	84.4	84.4	83.9	83.9	83.6	85.3
1984	83.2	82.7	82.5	82.3	82.2	81.8	81.4	81.4	81.3	81.2	80.6	80.6	81.8
1985	80.3	79.7	79.6	79.2	79.1	78.6	78.4	78.2	78.1	77.9	77.6	77.2	78.6
1986	76.9	76.6	76.4	76.3	75.9	75.9							