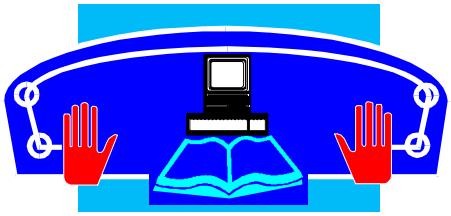

A Strategy For Arctic Foods Development In The Baffin Region Arctic Foods, Nwt Foods Industry

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ECONOMIC DEVELOPMENT&TOURISM - BAFFIN REGION

Guiding Principles

1) To promote a quality of life based on realizable and sustainable human and natural resources, and that recognizes unique priorities at the individual and community level.

2) To support a quality of life that minimizes destruction of cultural heritage.

3) To promote acceptable compromises between cultures through cross-cultural awareness.

4) To achieve a choice of options in a balanced economy.

5) To promote self-determination of a viable quality of life.

6) Facilitate access to opportunities for self-determination of a viable quality of life.

7) Recognize that the Department has two roles in the development economy : the proactive developing role and the reactive program delivery role.

The nature of the immature eastern Arctic economy necessitates that we stress a development mandate.

THE DEPARTMENT'S ROLE IN DEVELOPMENT

1) Identify existing opportunities.

2) Identify means of creating new opportunity through such facilitating factors as:

   a. human resources (skills and incentives)

   b. capital

   c. market / demand

   d. public / private sector roles

3) Analyze and evaluate trends, achievements and failures in economic opportunities.

4) Promote awareness and discussion of options and consequences to development opportunities.

5) Promote discussion and awareness of opportunities and development consequences with other public and private agencies.

6) Support quality in production and encourage excellence in new opportunities.

PROBLEM INDICATORS

1) Deficit-financing has produced a finality to available Government resources.

2) Growth in population is outstripping creation of jobs and new wealth.

3) Tax-base is not increasing substantively.

4) Limited number of viable opportunities for resource and business development.

5) Accelerated erosion of historical isolation of Inuit resulting in rapid entry of southern cultural presence.

6) Sense of hopelessness of “non-viable” communities, low self-esteem of available human resources.

7) Increasing dependence on Government “endless pot illusion”.

8) Proliferation of Government and Government programs has made simp” e problems difficult to solve.

COMMON BARRIERS TO ECONOMIC DEVELOPMENT

1) lack of available capital

2) lack of skills (low-grade levels)

3) high cost of living

4) low confidence levels

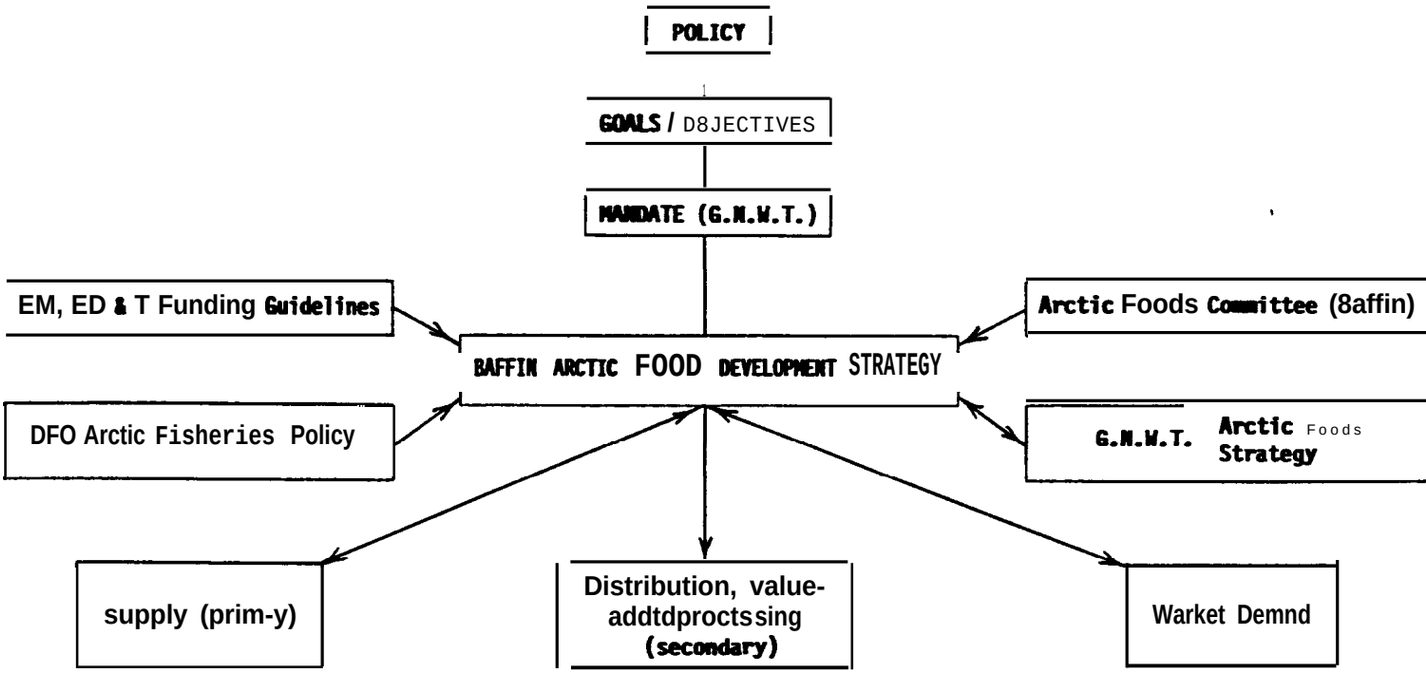
5) growing communities without a viable resource base

6) lack of new opportunities

7) poor access to information

COMMERCIAL RENEWABLE RESOURCE DEVELOPMENT

** ARCTIC FOODS *



1. **TRAINING FOR PRODUCERS**

   1.1 technical
   1.2 business
   1.3 industry awareness

2. **OPPORTUNITY ASSESSMENT**

A. **Prefeasibility**

   2.1 logistics
   2.2 information
   2.3 markets
   2.4 resource assessment/ management
   - commercial quotas/ sustainable yields
   - "best" use

B. **Feasibility Analysis**

   2.5 financial forecasts
   2.6 socioeconomic impacts
   2.7 entrepreneurial/skill levels

3. PRODUCT **DEVELOPMENT**

   3.1 recipe/process development (taste tests)
   3.2 packaging

4. SUPPORT SERVICES TO **INDUSTRY**

   4.1 financial & technical advice, business plans
   4.2 funding
   4.3 liaison and consultation with other gov't agencies & industry to develop management plan
   4.4 legislation review/input

5. **UPGRADE INFRASTRUCTURE**

   5.1 processing
   5.2 storage
   5.3 display

6. **TERRITORIAL TRADE DEVELOPMENT ARCTIC FOODS**

   6.1 awareness
   6.2 freight subsidies

7. **EXPORT MARKET ANALYSIS**

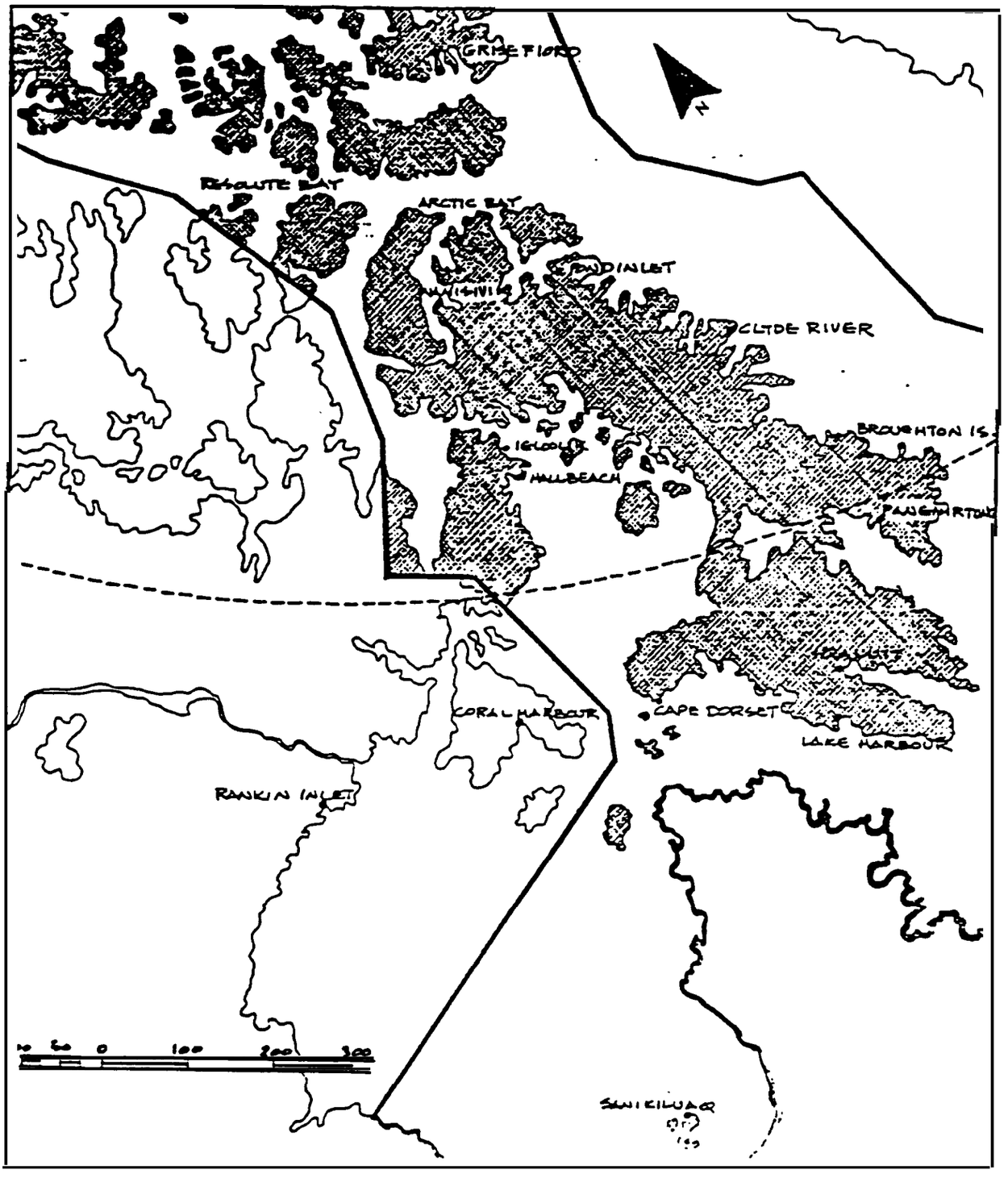
   7.1 Southern Marketing of Arctic Foods
   7.2 Southern vs. Northern Marketing

8. **ARCTIC FOODS PROMOTIO STRATEGY**

   - logos
   - labels, pkg.
   - ads, posters
   - samples
   - displays
   - recipe cards
   - brochures
   - culinary events
   - liaison with users
   - hospitality awards
   - consumer education

9. **GNWT INSTITUTIONAL** USE

ECONOMIC DEVELOPMENT & TOURISM
Iqaluit August, 1988


GRISE FIORD
RESOLUTE BAY
ARCTIC BAY
CLYDE RIVER
BROUGHTON IS.
IGLOOLIK
HALL BEACH
CORAL HARBOUR
CAPE DORSET
LAKE HARBOUR
RANKIN INLET
0
100
200
300

PIANNING REQUIREMENTS: Birth of a Strategy

For more than a decade, the need for a strategic framework and system of prioritization in commercial renewable resource development has been recognized.

There have been some serious constraints to strategic planning, however, most of which relate directly to the fledgling state of our renewable resource industries.

For example, there has been a very meager knowledge-base with respect to resource parameters and following from this, the appropriate logistical concerns, skill requirements implicated, potential markets, and overall economic feasibility.

Basic infrastructure requirements and needs for government support could be determined only as the resource base were further defined.

Moreover, there was uncertainty within the regulatory environment itself.

Quotas and licensing, mandates and jurisdictions, marketing and export provisions: all of these begged for proper resolute and interpretation in the Arctic fishery context.

Moreover, a major constraint to strategic planning has been the uncertainties associated with obtaining funding in times of fiscal restraint.

Unclear eligibility criteria, a lack of provision for multi-year funding, and delayed payments have impaired the planning process. Occasionally, they have wrought havoc at the delivery level as well.

In sum, planning horizons have to remain relatively compressed and flexible to accommodate revisions based upon rapidly evolving information with respect to resources, regulations, markets, logistics, and other factors.

A rough rule of thumb has been that our planning horizons should not exceed the development period during which feasibility is being assessed. Now that Baffin has seen its entering its third year of co-ordinated development in the renewable sector, we can reasonably look ahead with a three-year horizon based upon the information gathered to date.

The strategy described herein is meant to evolve as feedback is received from interest groups, as circumstances change, and as needs and resources shift. The strategy is a tool for guiding our efforts and evaluating our progress. As such it will be updated annually.

The strategy presented is compatible with Federal and Territorial policy and objectives, and with the more recent document produced by the Territorial Cabinet, **"Direction for the 1990's.**

This document parallels the Region views that we should focus on economic "winners" for long-term viability and job creation. The document adds that "we will not rule our support for Seine activities, particularly in the renewable resource sector, which may not be economically viable in themselves, but which may contribute to future economic development."

This is particularly significant given that, due to the Baffin's very short history in commercial renewable resource development and consegment lack of infrastructure and services, much of our effort has to date focused on the groundwork for development: resource assessment, feasibility analysis, and experimental/pilot projects. We are only beginning to see "implementation" projects at certain points within this sector, and cost-benefit analyses are

just beginning to be meaningful .

The Baffin arctic foods strategy is a generic plan for arctic foods development. As such it subsumes, in an analytical way, the Baffin fisheries development strategy.

There is common promise expressed as import displacement, improved nutrition, support for the traditional life-style and business and job opportunities. Similarly, there are common constraints to renewable development in the Baffin notably the lower productivity of Northern ecosystems, problems in supply and quality of the product (often related to Northern logistics), market access, and an often cumbersome regulatory environment.

Notwithstanding this, a dedicated fisheries development strategy which is much more project-specific and which responds more directly to fisheries-specific resources, programs and projects over a 3 year horizon has been prepared by Economic Development and Tourism and is updated annually.

Similarly, a strategy for other “non-food” sectors of the renewable sector is under separate cover; e.g. tanneries, eiderdown.

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PA6E NO.

i) Introduction and Overview of the Arctic Foods Industry

° Why Arctic Foods Development?

Intersettlement trade in country food (hereinafter called "arctic food") has long been considered to have significant potential to displace Southern food imports and to give the Baffin and other Northern jurisdictions a measure of self-sufficiency in food and fiber. Increased utilization and trade in arctic food has been recognized as a way of enhancing the "informal economy" so prevalent among Northern native peoples. Developing the traditional renewable economy through such efforts as trade in arctic food will at the same time support the maintenance of native cultures. A beneficial complimentarily between subsistence and commercial wildlife harvesting can thus be achieved, e.g. selling arctic char under commercial quota generates cash income with which to buy new equipment and supplies for subsistence harvesting.

In recent years, with the disappointments in the non-renewable sector of the Baffin economy (oil & gas, minerals), and with the advancement of aboriginal rights ideology, renewable resource development has again come to the political forefront. New positions have been created, funding agencies have made their programs more accessible, and there is greater interest in the population in seeking employment and business opportunities within the renewable sector, including the arctic foods industry.

As well, nutrition research and culinary arts exhibitions have further demonstrated that arctic foods are:

- superior in nutrient content and lower in saturated fat (compared to such meat imports as beef); Northern fish have high levels of Omega 3 which inhibits cholesterol build-up;

- very much in demand for their culinary appeal to consumers in Northern as well as in Southern Canada, and as feature menus to promote the Northern tourism industry.

° Background

There has been some level of intersettlement trade in arctic food in the Baffin for more than 10 years. Igloolik has sold arctic char and caribou to Iqaluit, Resolute outpost camps have sold to Grise Fiord, Arctic Bay and Pond Inlet have sold muktuk to Iqaluit and other coimnunities. Growth evolved in those early years was constrained by both limited market opportunities on the one hand and by logistical constraints on the other. Trade was small-scale which reflected small supply capability and smaller commercial markets.

In 1970, the imputed or replacement value of arctic foods in the Baffin was twice that of Southern imports. There was very little cash income to be derived from arctic foods at the time; however trapping and sealing income was healthy.

In 1988, the imputed or replacement value of arctic foods in the Baffin,

at more than $15 million, is approximately equal to Southern food imports. Commercial values of arctic food are in excess of $6 million, with more than 200 Inuit involved in commercial harvesting opportunities for part or all of their livelihood. New development in such areas as shrimp fishing have helped to compensate for harvesting opportunities lost as a result of the anti-fur harvesting campaign.

Development of the Baffin arctic foods industry has accelerated since 1985. Some of the more notable initiatives include:

- new emphasis on the renewable economy, identification of arctic foods/ intersettlement trade sector as a growth area;

- creation of new development positions within Economic Development and Tourism of G.N.W.T. and with Baffin Regional Council;

- resource assessment/quota allocation for fisheries species including arctic char, Baffin halibut, scallop, and shrimp; and wildlife species such as caribou;

- the emergence of Baffin's Qiqiqtaaluk Corporation as a regional offshore fisheries interest (in conjunction with Farocan of Ottawa, Ontario), national recognition of Baffin interests in offshore fisheries for shrimp, turbot, scallops, other groundfish including cod.

- emergence of smaller "inshore" private fishing interests such as P & L Services who are operating a new scallop boat in the Pangnirtung area.

- new processing/storage infrastructure in the communities to enhance the stability and quality-control aspects of product supply. One facility, Pangnirtung, has interim DFO registration for fisheries development purposes to allow exports to South Canada.

- new value-added processing enterprises in Iqaluit including fish smoker, and specialty "arctic foods" restaurant. Planned expansion in processing and distribution of arctic foods.

- preliminary training for producers in harvesting methodology, meat-cutting, value-added processing including sausage-making, business procedures, quality control, and market awareness.

- specialized skills imported from Greenland and Atlantic Canada, exchange trips for Baffin trainees.

- Arctic College has assumed training responsibilities for fisheries development. Co-operation with Nova Scotia Department of Fisheries to facilitate training matters, expertise requirements, advice on offshore resource allocations.

- a survey of market demand was completed for arctic food in Iqaluit, the principal commercial market in Baffin, confirming a rapidly escalating market demand for arctic food products and a need for a more effective distribution of products.

- promotional initiatives were undertaken including a new logo, special packaging, ads, posters, taste-tests, and “arctic foods dinners”.

o Lead Roles

private sector

The private sector, particularly in offshore fisheries, is expected to take a lead role in development. Government plays a supporting role.

In the case of inshore fisheries development and trade, in arctic foods, where there is no history or tradition and therefore limited private sector interest and/or capability, the government must initially assume a greater development role.

public sector

In the Baffin, indicators of marine fisheries potential on the one hand and HTA-ownership of processing infrastructure on the other has led to some specialization of function between Economic Development and Tourism and the Baffin Regional Hunters and Trappers Committee of Baffin Regional Council (BRc) respectively.

The two functions, respectively, are implemented through the Resource Development division of Baffin Economic Development and Tourism and the Baffin Arctic Foods Development Officer (AFDO).

In practice, Economic Development and Tourism has been highly involved in commercial fisheries development, often with an export slant, while the AFDO (BRC) position has worked on the production end of the other supply spectrum, often in the intersettlement or territorial trade sector. There is ongoing consultation between the two roles and formalized inter-agency liaison through the Baffin Arctic Foods Committee.

Demands within the fisheries development sector have resulted in the creation of a new position in Economic Development and Tourism: a Fisheries Development Officer.

Efforts of Economic Development and Tourism in the “non-fisheries” side of arctic foods have been limited by workload to market-development and general support for value-added business interests. The new fisheries development position will stimulate more diverse development activities within the renewable resource sector as a whole.

In all renewable resource development projects, input and feedback to proposals are requested from the Department of Renewable Resources and from Fisheries and Oceans, where appropriate, at the regional level.

Renewable Resource Officers sometimes play a major role in development at the community level, particularly where HTA’s (Hunters and Trappers Associations) are the development interest. Economic Development Officers often play a support role in such cases.

BAFFIN ARCTIC FOOD

Commercial Renewable Resource Development

POLICY - Government of the Northwest Territories

The Territorial government has no specific commercial fisheries or "arctic foods" policy, but this sector is addressed in the following policy.

"Commercial Renewable Resource Use"

The G.N.W.T. encourages and supports domestic, subsistence, commercial, and outdoor recreational uses of renewable resources, that is consistent with acceptable resource management and business management practices.

Principles

- Commercial renewable resource development is a desirable activity for the Northwest Territories
- Commercial development of renewable resources will be encouraged where resources are surplus to domestic needs.
- Commercial renewable resource development will be consistent with territorial and federal renewable resource management policy guidelines.
- The interests of native groups and other Northern residents shall be recognized and the opportunity to participate in and benefit from renewable resource development should be available to all interested residents of the Northwest Territories.
- The commercial renewable sector will be encouraged to attain national health and product quality standards.
- The private sector should take the lead in developing viable enterprises, with" government providing limited financial assistance, services, and incentives to encourage and facilitate commercial renewable resource development.
- The Government of the Northwest Territories provides general support including:

  a) determination of renewable resources potential;

  b) identification of training, employment, and business development opportunities;

  c) information to residents about opportunities, benefits, and costs associated with renewable resources use options;

  d) technical assistance for realization of commercial use opportunities;

  e) financial assistance for training, employment and entrepreneurial opportunities;

f) monitoring of renewable and non-renewable activities to ensure renewable resources opportunities are realized;

9) encouragement of co-ordination of renewable resources management between Federal and Territorial agencies.

Conflict of Use

a) To encourage a diversified economy, domestic and commercial renewable resource development will be encouraged to co-exist: where there is conflict of use between the two activities the existing activity will be supported, unless:

i) a socio-economic cost/benefit analysis of optional resource uses identifies a "better" resource use;

ii) there is local support for the "better" activity; and

iii) existing users can be compensated for any losses caused by the new activity.

b) To encourage a diversified economy, non-renewable resource development and commercial renewable resource development will be encouraged to co-exist; where there is conflict of use between the two activities the existing activity will be supported unless there is a proven "better use", local support for the "better" use, and compensation for any losses caused by the new activity.

POLICY - Fisheries and Oceans Canada (Federal 6ovemment)

"To manage the fish and marine mammal stocks of Canada on a sustained yield basis for the social and economic benefit of Canadians".

Beyond domestic consumption and local trade, there is no Territories specific policy on the commercial sale or use of this resource. Fisheries and Oceans is currently developing an Arctic Fisheries Policy with G.N.W.T. input.

Goals of DFO in the N.W.T.

- to ensure sustainable yields to foster maximum economic and social benefits to N.W.T. residents;
- to develop rational and responsive management programs for the utilization of fish and marine mammals;

Objectives

- to understand distribution and habitat requirements of these resources, their socio-economic importance, and negative implications of exploitation;
- to produce an inventory of biological and ecological information on these resources;
- prepare and enforce appropriate regulations;
- advise with respect to development and conservation;

- promote best use of resources;
- to enhance profitability of fisheries through technology that will increase fishermen's incomes;

The strategy of DFO is to implement programs in 5 categories:

- management research;
- resource assessment;
- field services;
- fisheries development;
- inspection services.

The application of these in the N.W.T., particularly within the Baffin region, is limited due to a lack of resources on the part of Fisheries and Oceans Canada.

MANDATES (6. N.w.T.)

The Dept. of Renewable Resources of the Government of the N.W.T. is responsible for renewable resource matters regarding the development of management, conservation, domestic, subsistence, and outdoor recreational use strategies, including the relevant planning, budgeting and programming processes.

Economic Development and Tourism is responsible for renewable resource matters regarding development and implementation of commercial use strategies including those commercial aspects of outdoor recreational use, consistent with management plans.

Notwithstanding the above, the Departments of Renewable Resources and Economic Development and Tourism in the Baffin have been developing ways and means of co-operating on renewable resource development using the resources and common interests of both departments.

At a meeting of Renewable Resource Development Officers it was decided that the Natural Resources Division (ED & T) should be concerned with the following resource sector:

a) forestry
b) fisheries and marine mammals
c) agriculture, food and aquiculture
d) fur and fibre
e) water and ice

This excludes big game sport-hunting which is more properly the mandate of the Department of Renewable Resource and the Tourism and Parks Division of Economic Development and Tourism.

The list also excludes wind energy because other federal and territorial agencies are already actively involved.

GUIDELINES FOR STRATEGIC PLANNING

a) Management of renewable resource use within sustainable yields. Biological viability is necessary, though not sufficient in itself, for economic viability.

b) Increase of community self-sufficiency in food and fibre.

c) Maximization of community and territorial economic impacts.

CONSTRAINTS TO RENEWABLE RESOURCE DEVELOPMENT

a) Jurisdictional disputes/uncertainty about development mandates and roles.

b) Resource base and sustainable yields unknown (environmental impacts).

c) Lack of services, appropriate technology, and infrastructure.

d) Lack of management, technical skills, and expertise.

e) Isolation from markets, capital, and information.

f) Fluctuations in and general low productivity of fish and wildlife populations in the arctic.

9) public awareness, political demands.

h) Small, scattered regional market; distant export markets.

i) harvesting and logistical problems relating to climate; e.g. unpredictable weather and ice conditions, a short ice-free operating season (as opposed to 12 months of ice-free shipping conditions in much of Greenland).

What follows in the sections 1 to 9 is an overview of what we feel should be considered in formulating an arctic foods strategy in the context of what has been done. This forms the general groundwork for the specific program recommendations, the action plan that is laid out in Part 2 of the strategy that follows.

Partl: Perspective and Overview on Initiatives to Date

SUPPLY OF ARCTIC FOODS

1. Training for Producers

1.1 Technical Training

A range of training programs have been sponsored through Economic Development and Tourism, Baffin Region Hunters and Trappers Committee, and through individual Co-ops and HTA's.

These training initiatives have been somewhat loosely co-ordinated on a needs-specific and project-specific basis. Instruction has been provided in such areas as produc-tivity and quality-control in the field-handling, transportation, meat-cutting, packaging, and storage of arctic foods.

In a few cases where harvesting has been non-traditional; e.g. scallop fishing and Ionglining for groundfish, training in harvesting methodology has been provided. Related subjects have thus ranged from species behavior to navigation and communications, to the use of sophisticated harvesting gear and equipment.

1.2 Business Training

Limited training in business skills has been offered to HTA's by BRHTC through the EDA-funded Arctic Foods Development Officer and through Economic Development and Tourism on largely a project-specific basis. The AFDO has worked primarily with HTA Secretary-Managers, while Economic Development and Tourism has provided for on-the-job training by including this function in project budgets.

Private sector interests have primarily become involved in the processing, wholesaling and retailing of arctic foods in Iqaluit, which is also the principal commercial market. Economic Development and Tourism has provided advisory and support services.

Wildlife Officers have worked with HTA's to encourage sound business practices. Their efforts have been facilitated by way of an entry-level training manual for HTA's developed by the Department of Renewable Resources to promote understanding of business matters. AEDO'S have been less able to provide business assistance to HTA's as they are not incorporated businesses.

Because of problems relating to the low level of formal education which characterizes Inuit business people in the Baffin, there is a continuing need for very basic business education. In the case of HTA producers, this problem is compounded by high turnover of Directors and management.

1.3 Industry Awareness

There is pronounced and continuing need for very general orientation

to production methods and the market. The subject matter is often conceptual and value-oriented as much as of a technical or business nature; **e.g.** “consistent quality”, “stable supply”, “competition”, and “market expectations”.

Efforts to date have been structured as components of ongoing workshops and training sessions in field handling of game, meat-cutting, **commercial** fish harvesting and processing.

Again, constraints have included a low basic level of education together with conflicting cultural beliefs and values.

Training initiatives have thus **far** been rather unco-ordinated to reflect itmnediate needs and limited resources.

2. Opportunity Assessment

A/ PREFEASIBILITY

2.1 Logistics

Given an appraisal of regulatory constraints, economic realities (prices and competition), and anticipated scales of production (assuming commercial quotas are already established), it may be possible to determine that a particular arctic foods development proposal is not feasible at the outset.

In the event that logistics possibilities are directly related to scale of production which in turn can only follow proper resource assessment, resource assessment may have to be undertaken as basic prefeasibility research before logistics assessment can be meaningful. In the case of fisheries, the establishment of conxnercial quotas may be a pre-requisite to assessing logistics matters; e.g. relatively large char quotas may justify the use of collector boats or larger and more cost-effective aircraft for removal, whereas smaller quotas may not.

2.2 Information

The Baffin has a very short history in the commercialization of arctic foods, -particularly in marine commercial fishing. Quite often we do not even know what species are there, let along what their sustainable yields might be.

Given an often inadequate knowledge base with which to properly assess resource or opportunity potential, it is often the case that preliminary indicators are relied upon and that "best bets" are targeted for development, particularly in their earlier stages before sufficient knowledge accumulates to allow for systematic and informed planning. For instance, turbot were found on the ice near Pangnirtung, scallops were incidentally hooked with longlines, and shrimp were incidentally harvested in scallop drags.

During fisheries resource/prefeasibil ity assessment in Pangnirtung, an operating principles was that, given that community's favorable airline service and market access, it would be counter-productive to attempt too soon to replicate the development simultaneously in other communities which would only have to compete in a limited market.

The point made is that our knowledge base has been growing in a somewhat dialectical fashion from "turbot on the ice" to 3 Year planning scenarios in the case of specific connnunities/arctic food products. Other perceived opportunities fall somewhere between these extremes on the "information" continuum. As resource assessment data and project reports accumulate to form a more reliable knowledge bank, renewable resource development will benefit from more comprehensive and systematic planning.

2.3 Markets

It matters little what the resource potential is if, for economic or logistical reasons, the product cannot be marketed to produce viable levels of revenue.

Uith respect to Baffin arctic foods, there are local markets (Inuit and/or non-Inuit) for each community; there is a Regional market dominated by Iqaluit; there is a Territorial market; and there is a Southern export market.

All of these markets are purely theoretical. Whether they can respectively be realized or developed will depend upon:

- the regulatory environment (e.g. selling caribou to buyers in Southern Canada) is prohibited
- production costs
- production capabilities with respect to the size of the resource/conunercial quotas, quality-control, stability of supply, etc.
- access to market (frequency, freight costs)
- size, sophistication, and preferences of the market
- competition for the market

In the case of most arctic foods, there is currently more supply than demand, though this relationship is oten confused by eratic supply. As the supply of arctic foods stabilizes in price, quality, and availability, demand should quickly surpass supply for most species.

Because of supply-demand dynamics, there will be little surplus resource in the arctic food sector left for export. A couple of exceptions are turbot, shrimp, and possibly scallops where the resources are larger than foreseeable demand in the N.W.T., and where higher volumes and economies of scale are often required for viability because of capitalization costs.

Ongoing identification of principal markets for development by species and by community/producer is a high priority in this Strategy. Where feasible, the markets where our value-added products can compete will be identified and targeted.

2.4 Resource Assessment/Management

- commercial quotas and sustainable yields

A good understanding of the resource base and the extent to which the resource can withstand commercial exploitation on top of subsistence and sports exploitation is necessary for effective and responsible management of the resource. The **economic viability of a venture exploiting renewable resources presumes biological viability.** Commercial harvest quotas must always reflect sustainable yields.

Resource assessment is fundamental to development of the renewable economy,

yet it is often difficult to access funding to undertake this task. Conditions of past funding has tended to indicate a grudging appreciation of the need for, and of the process of, resource assessment.

It is worth restating that resource assessment efforts are not unfocused or "pure science" initiatives; they are targeted at "best bet" development scenarios which incorporate other prefeasibility indicators such as species value, production costs, competitive positions and markets.

"Best Use"

In planning for exploitation of a renewable resource, it must be considered carefully which is the best all-round use of the resource: the use of greatest net return.

Subsistence use of renewable resources is almost always the most rational use of a resource from an economic perspective, not to mention from a nutritional or socio-cultural perspective. This is because the imputed or replacement value of arctic foods is often higher than the possible commercial value. The char or caribou that a hunter sells for $1.00 a pound is really worth $5.00 or more per pound for every pound of beef hamburger or chicken that it displaces.

Sports-fishing is generally considered a better use of fish because there is a greater dollar return per pound of fish used than from other possible uses such as commercial fishing (economic returns as measured against resource pressure).

Smoking or other forms of processing of arctic foods, be it arctic char fillets or caribou sausages, constitutes value-added production which has a greater economic impact in terms of job creation and competitive position in the marketplace.

The Baffin Arctic Foods Strategy will research and identify, where possible, "best use" scenarios given current economic and other relevant factors.

B/ Feasibility ANALYSIS

2.5 Financial Forecasts

Projected income, cash flow requirements, return on investment, and so on will further identify opportunities in the renewable sector. This information will build upon parameters that emerge from more preliminary assessment; e.g. resource and market assessment, logistics, etc.

2.6 Socio-economic Impacts

In any development scenario, one can anticipate positive and negative impacts in terms of:

.jobs created

.new business development

- spin-off business opportunities
- training and technology-transfer opportunities
- reduced welfare dependence

A determination of "net" positive impacts are included in any feasibility assessment for renewable resource development. Occasionally difficult decisions and/or trade-offs will beg to be resolved; e.g. 'Will commercialization of arctic foods result in any weakening of the traditional sharing ethos?

2.7 Entrepreneurial/Skill levels

Feasibility of any particular development is in part contingent upon skills that exist and/or can be developed locally within a reasonable time frame.

While specialized skills together with training programs can be introduced to support renewable resource development, there must be a minimum level of awareness and interest to form a foundation, so to speak. In particular projects, it may be appropriate to phase in development as local entrepreneurial and skill levels permit. The alternative is to have development imposed from without, and to have success in development contingent upon a high level of imported expertise. There will always be trade-offs and a best plan of attack given political, economic, and human resource realities.

3. Product Development

3.1 Recipe/Process Development

To stimulate the supply side of arctic foods by providing a greater range of products with enhanced appeal to consumers, it is necessary to develop recipes, processes, and methods by which to prepare arctic foods for subsequent retail and utilization by the food service industry.

There is obviously a very direct link between product development and market development. Feedback mechanisms such as taste-tests will further refine the outcome of product development.

In order for some arctic food products such as caribou to be in such consumer demand that it can compete with imported beef, some value-added processing is often required to justify a higher selling price. This is usually simple processing which is compatible with local infrastructure/ equipment and skills: e.g. caribou sausage. On the other hand, products such as smoked char is a specialty which is skill and infrastructure-intensive and is not therefore recommended lightly as a value-added development option.

3.2 Packaging

Packaging should be product-specific and should be designed to preserve the contents as well as to promote the product as a specialty item from the Baffin arctic environment.

Packaging should also maximize customer convenience, whether to the retail consumer, wholesalers, or the food-service industry. Convenience in packaging will be a function not only of package size and portion cuts, but may extend to its facility for heating and serving the product; e.g. “boil a bag seal meat”.

Packaging will be undertaken in the supply community by the producers and to a greater extent by processors and wholesalers/distributors in Iqaluit.

Because of the promotional aspect of packaging, it will be considered again under “Market Demand” in the strategy.

4. Support Services to Industry

4.1 Financial and Technical Advice

HTA's are provided with assistance by the BRC Arctic Foods Development Officer (including incorporation as a business) and by Renewable Resource Officers. While Economic Development Officers sometimes assist HTA's as well, most of their assistance is directed at the private sector. ,

To the extent specific expertise is not readily available, project personnel are brought in as required (generally funded by EDA and other agencies), and training is typically provided as a component part of the program.

4.2 Funding

Economic Development and Tourism has a number of funding programs for encouraging the development and expansion of renewable resource businesses and pilot projects. These range from service contracts, to business contributions, to renewable resource enhancement contributions.

Economic Development and Tourism also acts as a conduit and/or implementing agency for other sources of funding such as Special ARDA, EDA, and the Eskimo Loan Fund/ Business Loans and Guarantees Fund.

For accessing funds for specific purposes such as training, Economic Development often provides a liaison role, particularly when Federal funding agencies are involved; e.g. C.E.I.C.

4.3 Liaison and Consultation in Planning and Programming

In the public sector, a wide variety of agencies and interest groups have a role in renewable resource development from policy, regulatory, training, or economic development perspectives; e.g. Economic Development and Tourism, Renewable Resources, Fisheries and Oceans, Arctic College, D. I.A.N.D. Baffin Regional Council, Qiqiqtaaluk Development Corporation, etc.

Not only has effective liaison proven essential in providing stability and direction over our short history of renewable resource development, but an active consultation process is evolving to encourage input and feedback from all interest groups. This consultation is institutionalized through such mechanisms as the Baffin Arctic Foods Committee, through inter-agency planning meetings, and through collective participation in the planning and development objectives as expressed in various project proposals, their implementation, and their evaluations.

Consultation and a public information process is required to represent the sometimes different views of a multiplicity of interests, to resolve development issues, and to enhance awareness in the Baffin population as a whole as to what are the promises and the constraints of renewable resource development. The renewable sector is generally a hot item on the agenda, for example at annual meetings of Baffin Regional Council and Baffin Region Inuit Association.

4.4 Legislation Review/Input

Regulatory and marketing regimes generally originate in Southern Canada and are adapted for the national context. As such, they do not always reflect circumstances unique to the Arctic which may lend themselves to the spirit of the existing legislation but not to the letter of such legislation. An example might be the marketing in Southern Canada of lake-frozen char. While this harvesting system is not currently compatible with fisheries inspection requirements which evolved in the national context to address quality-control and market concerns, it remains a relatively fool-proof and cost-effective means of addressing those concerns in the Baffin context.

Identifying such anomalies and presenting comparative data on economic, logistic, product-quality, and resource pressure can be undertaken with varying effectiveness to promote more viable and meaningful alternatives to those currently sanctioned by legislation.

DISTRIBUTION & VALUE-ADDED PROCESSING

This section of the Strategy links together the opportunity identification function on the producer side with the market development function on the demand side. The extra dimension is that of value-added processing, specialty packaging, and wholesale distribution.

5. Infrastructure Requirements for Arctic Foods Development

Infrastructure is required to process, store, and display arctic foods.

5.1 Processing Infrastructure

As a result of S/ARDA capital funding approved in 1985, all Baffin communities except Iqaluit and Nanisivik have small (30' x 40') combination processing/frozen storage facilities, owned and operated by the community Hunters and Trappers Associations. Basic equipment in these facilities includes a bandsaw, a heat-sealer for wrapping, a grinder, and miscellaneous cutting and packaging tools.

These facilities are in varying degrees of utilization, but by and large they are recognized as basic community infrastructure as opposed to commercial infrastructure. As such, G.N.W.T. pays the associated O & M costs.

The small plants are used for a variety of processing activities ranging from fish processing for export to Southern Canada in the case of Pangnirtung (under interim licensing from Fisheries and Oceans), to caribou sausage production in Pond Inlet, to cutting muskox in Grise Fiord. These facilities meet Territorial standards for intersettlement trade purposes. Upgrading of the physical plant is required to meet federal standards if fisheries export is intended; e.g. Pangnirtung.

Larger-scale commercial development for specific products/species may require new plant infrastructure in the future if needs dictate.

5.2 Storage of Product

In spite of the Baffin's frigid climate, good frozen storage has proven essential in meeting the infrastructure requirements for developing the arctic foods industry.

For all practical purposes, the old "community freezers" operated by DPW and municipal governments are either begin phased out or used strictly for domestic (non-commercial) storage. The newer HTA facilities are being used as incubators for commercial applications.

Frozen storage capable of holding temperatures to -20°C is needed to maintain the quality of products which are often harvested seasonally in the Baffin. In some cases, the storage freezers are also used for blast freezing for want of dedicated equipment. Good frozen storage is required not only at the supply end, but in the distribution of arctic foods as well. This need is evidenced principally in Iqaluit, the main

market for most species/products.

5.3 Display Freezers

Effective display of frozen meat and fish products in retail outlets will meet the storage as well as the promotional requirements of moving arctic food from supplier to consumers.

6. Development of Territorial Trade in Arctic Foods

Efforts have been ongoing to stimulate trade in arctic foods within the Region and the rest of the Northwest Territories as well. For many products, particularly high-value or value-added products which have exotic or strong Northern associations, the Territorial market is often our best market. We are able to capitalize on tourism and "northern identity" markets by maximizing the value of our products' geographic origins and cultural associations. As well, our competitive position in Territorial trade is often enhanced as a result of lower freight costs and other factors. Thus arctic char can compete against Southern salmon, Baffin scallops against imported varieties, and caribou against beef. This is import displacement at the same time as it is promotion of the Baffin Region and of the Northwest Territories as a whole.

6.1 Opportunity Awareness

There is a need for producers and distributors, on the one hand, and for the market in other Territorial centers such as Yellowknife, on the other hand, to be aware of each other.

Market development including promotion is part of this, but there is also an active role to be played by producers and distributors in researching market opportunities, developing contacts, and establishing trade systems.

6.2 Freight Subsidies

Freight subsidies are currently offered to lower the costs of moving fish from one settlement to another for commercial trade purposes. The subsidies are particularly effective in facilitating exchange between those communities where resupply from a point in Baffin is often more expensive than supply from Southern points. Such disparity where it exists is a result of less traffic and therefore smaller aircraft between points in Baffin, and generally higher operating costs for northern carriers.

Expanding the freight subsidy program to other arctic food products besides fish is a possibility for the future, financial resources and commitment permitting.

7. Export Market Analysis

7.1 Southern Marketing of Arctic Foods

There are a number of constraints which affect selling to the export (Southern Canada) market:

- there are legal prohibitions against selling certain varieties of wildlife south of the 60th parallel; e.g. caribou;

- there are supply limitations for some species which should preclude developing a Southern market over a Northern one; e.g. regional demand will soon surpass the supply of caribou and other species currently available under commercial quota in the Baffin;

- it is often the case that the Baffin cannot easily compete with southern suppliers of a given product, especially one that is not unique to the North; e.g. turbot in the Montreal and Ottawa markets;

- quality-control along with the need for stable supply and pricing are very real constraints for Northern producers, given their relative inexperience and the frequent seasonality of harvesting operations;

- there are marketing regulations which do not facilitate direct and competitive marketing: e.g. all N.W.T. arctic char must be sold through the Freshwater Fish Marketing Corporation in Winnipeg.

7.2 Southern Vs. Northern Marketing

In all cases, the comparative profitability and long-term wisdom of export vs. Territorial trade must be carefully assessed. When export trade is to be developed and trade linkages established, what mechanisms are there to maximize the positive returns and minimize the costs? For example, value-added production is priorized because it increases viability by enhancing competitive position, and because it creates more employment and spin-off opportunities for other businesses.

Where regulatory requirements and prohibitions are constraints which are not related to safeguarding of the resource, alternatives might be pursued through amendments to the appropriate legislation. Examples are the marketing of arctic char which could be more profitably sold through direct marketing to buyers in Ottawa and Toronto, and the resistance in Fisheries and Oceans to exporting “lake-frozen” char (which meets all objective quality standards) from the N.W.T.

MARKET DEMAND

8. Arctic Foods Promotional Strategy

Through in-house efforts by Economic Development and Tourism and the Baffin Arctic Foods Committee, a draft promotional strategy is being developed. This promotional strategy highlights the importance of value-added processing, the specialty packaging of unique and exotic arctic foods (with linkages to tourism), and the priority of intersettlement trade and import replacement where feasible.

Consistent with this strategy development, ongoing promotion of arctic foods has included the following:

- development of a Baffin fishery products logo
- development of special packaging for arctic char, labels for various arctic foods products
- media ads, arctic foods posters
- product samples to prospective buyers
- menu development assistance, recipes, instore displays, demonstrations, and product taste-samples
- culinary events featuring arctic foods
- encouragement for the food service industry promoting excellence in arctic foods preparation (hospitality awards)
- market and producer awareness of each other
- consumer education (nutrition, handling).

9. G. **N.W.T. Institutional Use**

Recognizing its role as one of the major purchasers of food products in the Baffin Region, G.N.W.T. has targeted utilization of arctic foods in government institutions as one way of stimulating demand for such products and thus creating cash opportunities for regional hunters. While this is largely a policy decision, there are market development aspects in that more people will become familiar with the arctic ,food products being made available.

ARCTIC FOODS DEVELOPMENT STRATE6Y

Part 2: ACTION PLAN

The implementation strategy is broken down for presentation purposes into the “Supply”, “Distribution & Value-added Processing”, and “Market Demand” categories used in Part 1.

In actual fact, activities will be related to one another in a very dynamic way. For example, quality-control initiatives at the supply or primary production level will be driven by market expectations. Their implementation will in turn increase market demand and set new standards of acceptable quality. This would possibly lead to a need for more resource assessment, upgraded distribution, and so on.

ACTION PLAN: SUPPLY

Program	Action	Re po	Priority/Timetable		omme
FISHERIES					
Training:					
• Co-ordination of fisheries training through Arctic College	Arctic College develop & deliver programs; establish Steering Committee	& T co-chair with Baffin Regional Chamber of Commerce, DFO, Renewable Resources, BRC.	H	1988	
• Intro. F sheries Tra ng	Course de	Arct c College	H	1988	
• Deck training for Lake Harbour residents in South Baffin exploratory inshore scallop fishery	Community consultation recruit Lake Harbour trainees	Qiqiqtaaluk, support from Economic Development & Tour sm	H	1988	E funding appr
• specialized deckhand/marine safety training for Baffin residents having offshore experience	Fund-raising, recruiting training evaluation	Qiqiqtaaluk, Nova Scot a School of Fisheries		Spring/88	
• Cumberland Sound turbot fishery - ongoing training and work experience in harvesting, processing, and marketing (with a few places for south Baffin trainees)	Limited funding for training in 1989 season	Economic Development Tourism, Arctic College	H	Spring/89	
• Special zed tra ning n s lop fishing	Course development	Arctic College, Economic Devevelopment & Tourism	M	88/89	Fishery Development Officer (ED & T)
• Training in r ssing and value-added	Course development	Arctic Col ege, Economic Devevelopment & Tourism	M	1989	
• exchange trips to Green and and Atlantic Canada	Co-ord nate exchange detai s	Economic Development & Tourism	M	1988	Pangnirtung-Ilulissat (Greenland) in planning stages

FISHERIES (Cont'd)

OPPORTUNITY ASSESSMENT:

Feasibility

• Preliminary scallop resource assessment in Clyde River area	Technical assistance	HTA, Economic Development & Tourism	M	1988	Contracted expertise to visit Clyde River
• Inshore fishery prospects in Resolution Island/South Baffin area (e.g. shrimp, cod, turbot)	Exploratory fishing, consultant's study	Economic Development & Tourism	M	1989	
• feasibility of processing facility in Iqaluit (shrimp, groundfish)		Economic me & Tourism	M	989	
• Preliminary investigation of marine shellfish (mussels, clams, scallops) in the Belcher Island; preliminary assessment of aquaculture possibilities; survey of marketing options	Test fishery - consultant's study	c Development & Tourism	H	1988	Contracted study
• Shark fishery as dedicated fishery or by-catch	Consult with fish market and other producers; e.g. Greenland	me & Tourism	M	989	
• Igloolik (Steensby Inlet) char fishery, input of winter fishery results	Complete deve t plan	Economic Development Tourism, Renewable Resources	H	988	
• Nettiling Lake char trap fishery	Site survey, 1988 trap deployment 1989	Economic Development & Tourism	M	1988/89	Limited commercial fishing, 1989.
• ITC seal utilization strategy	Opportunity assessment for communities in Region	ITC, Economic Development & Tourism, Renewable Resources	H	1988	

FISHERIES (Cont'd)

SM					
• Continued offshore exploratory fishing in Hudson and Davis Straits for shrimp & groundfish	Obtain exploratory permits from DFO, consult with Pangnirtung	Qiqiqtaaluk, Economic Development & Tourism	H	1988	
• Investigation of inshore shrimp stocks in inshore waters of Cumberland Sound and South Baffin	Exploratory fishing, appropriate technology	Economic me & Tourism DFO	M	1988/89	Data from offshore shrimp boats and via inshore trap technology
• Inshore exploratory scallop fishing in South Baffin area	Co-ordinate	Economic Development Tourism, Qiqiqtaaluk, Makivik	H	1988	
• Offshore exploratory scallop fishing n Western Hudson Strat	Obtain appropriate vessel and funding (NEDP)	Qiqiqtaaluk, Farocan	M	1988/89	Project depends upon sourcing of appropriate vessel
• Exploratory fishing (offshore) for preliminary resource identification in Hudson Strait, Hudson Bay, and Foxe Basin	Obtain funding	DFO, Qiqiqtaaluk, Economic Development & Tourism	×	99∞	DFO should play a lead role in accessing funding
• Resource assessment of cod in Lake Harbour area & Cumberland Sound, market assessment	Obtain test fishery permits, community consultation	Economic Development & Tourism, Renewable Resources, HTA's	L	1989	
• Continued assessment of Cumberland Sound scallop stocks	Co-ordinate	P&L Services, Economic Development & Tourism, Pang. HTA, Renewable Resources	H	1988	

ACTION PLAN: SUPPLY

FISHERIES (Cont

Support Services To Industry

Research and Development:

• Experimental use of char traps for live harvesting	Pilot project, improvements as necessary	Economic me t & Tourism	H	98	Assumes availability of Quebec gear expert and/or gear
• Automated longline hauler for Cumberland Sound turbot	Continued development, local input (Pang.)	Pang. fishermen, Economic Development & Tourism, Renewable Resources	M		Introduced during 1988 Pangnirtung turbot fishery
• Navigation aids; e.g. Navstar- systems	Monitor developments proposed for 1990's, research impact on Baffin fisheries	Economic Deve me & Tourism	M	9	Baffin does not enjoy Loran C coverage

Business Development

Facilitate:

Incorporation of producers	Assist with incorporation	Economic Development & Tourism, BRC	H	1988/89	Pangnirtung fishing company; some HTA's will incorporate
• Producer associations	Provide info. and advise	Economic Development & Tourism, BRC	M	989	
• Access funding	Assist private sector in accessing funding programs	Private sector, Economic Development & Tourism	H		

Consultation:

• liaison with interest groups in developing arctic foods industry	Meetings, dissemination of information, feedback	Baffin Arctic Foods Committee, Economic Development & Tourism, BRC, Qiqiqtaaluk Corporation	H	1988	Ongoing
• Federal legislation/operating requirements anomalies	Review and highlight problems, recommend solutions	Economic Development & Tourism, Renewable Resources	H	98	Ongoing
• Access federal programs, e.g. DFO inspections	Liaison	me & Tourism	H		Ongoing

ACTION PLAN: SUPPLY

Program	Action	Responsible Agent	Priority	Timetable	Comments
ARCTIC OOD					
Training:					
• Training workshops in field handling of game, meat-cutting, processing, value-added	Source funding	BRC & Economic Development & Tourism, in consultation with Arctic College		1988	
• Training manuals and videos to disseminate and reinforce the above	Complete manual and v deo	BRC, IBC (video)	×	1988	
• More IBC cov≤ra□≤ ☍ the industry	Consultation	BRC, Economic Development & Tour sm	M	1988	Ongoing
• Co-ordination ☍ training efforts	Arctic College develop courses and deliver	Arctic College, BRC, Economic Development & Tourism	M	19≤8/≤9	
OPPORTUNITY ASSESSMENT					
Feasibility					
• Priorization of communities for arctic foods development	Community opportunity assessment vis-a-vis competitive position with respect to markets, resources, skills, interest	B□C, Economic Devel□□m□nt & T□ur sm	×	1989	
• Baffin Island gla<ier water or ice	Market research, preliminary costing, determine competitive position	Economic Development & Tourism	M	988/89	
• Wholesale distribution/storage of arctic foods in Iqaluit	Fe□s □ l ty assessment	Private Sector, Economic Development & Tourism	M	1988	
• Egg production faci ity in Iqaluit	Fea□i□il ty assessment	Economic Development (Hay River & Baffin), Northern Poultry	M	1988	

ARCTIC FOODS (Cont

Resource Assessment

• Study Baffin caribou herds, e.g. North Baffin, South Baffin	Ongoing implementation of resource assessment program	Renewable Resources, respec HTA's	H	1988	Ongoing
• Sanikiluaq Reindeer herd assessment	Resource program	Renewable Resources,	M	1988	Milton Friedman co-ordinating

Support Services To Industry

Development:

• Processing, packaging, value-added

Business Development:

Incorporation of producers and production associations

• access funding

Consultation:

Liaison with interest groups

• Monitor/evaluate legislation/regulatory regime for arctic foods

• Develop G.N.W.T. health standards for arctic foods

ACTION PLAN: SUPPLY

Program	Action	Responsible Agent	Priority/Timetable		Comme
ARCTIC FOODS / F SHERIES					
Product Development					
Recipe/process		Economic Development & Tourism, BRC			
• Arctic food r≅c ≡≅s n reta outlets		BRC, Economic Development & Tourism	H	1988	
• dried fish char, turbot, c○ᶜ		Iqaluit Enterpr ses, Economic Development and Tourism	M	1988	
• Whale jerky, dried wha e		Economic Deve opment & Tour sm	H	1988	Service contract to Mt. St. Vincent University
• Smoked char pate (as by product of "side" production)		qa ⊇ t Enterprises	H	1988	
· Development of caribou sausage, ground caribou		BRC, Renewable Resources	H	1988	
Processed sea products		Mt. St. Vincent University, Economic Development & Tour sm (David Ladd via Keewatin)	×	1988/89	Mt. St. Vincent University have developed sea pastrami salami, black forest
· Arctic food restaurant ᶜishes; e.g. muskox pie, rabbiᶜ stew, Baffin seafood chowder		Northern Corner Store, Kamotiq Inn, Economic Development & Tourism	M	988	

ARCTIC FOODS (Cont'd)

Packaging

• Shipping boxes to Baffin producers on cost-covery basis	Co-ordinate shipping and re-payment	BRC, Economic Development & Tourism	H	1988	Funding received
• Supply of presentation boxes for whole char and fillets	Distribute as required	Economic & Tourism	M	1988	
• Vacuum packaging of arctic foods products	Promote use, assist with funding	Economic Development & Tourism, BRC, Renewable Resources	M	1988	Ongoing

Support Services To Industry

Research and Development

• Value-added packaging	Research, funding proposals	Economic Development & Tourism, BRC	M	1988	

ACTION PLAN: SUPPLY

Program	Action	Re pon Age	Priority/Timetable		omnen
TU					
Feasibility					
• Fox farming	Follow-up with Keewatin and Hay River efforts	Economic Development & Tourism	M	1989	
• Domestication possibilities of Arctic hare for commercial meat sales	Consult with ate agencies	Economic Development & Tourism	M	1988	
• Reindeer, muskox transp ants to Baffin	t with Renewab e Resources re: remote sensing on specified Islands	Economic Development & Tourism, Renewable Resources	M	1988	
• Commercial greenhouses Iqaluit and Pond Inlet	Feasi⊐ l ty reports	Frobuild, Pond Inlet Co-op, Economic Development & Tourism	H	1988	

Program	Action	Responsible Agent	Priority/Timetable		Comme
ARCTIC FOODS / FISHERIES					
Infrastructure					
• Upgrading of infrastructure for processing arctic food products in Iqaluit	Funding proposals	Iqaluit Enterprises, Northern Corner Store, Economic Development & Tourism, BRC	×	1988/89	
• Increase frozen storage/ distribution capacities in Iqaluit to enhance stable supply and quality	Assess need/opportunity develop proposal if feasibility indicated	Iqaluit Enterprises, BRC, Economic Development & Tourism BRC	H	98×/89	
• Dedicated display of frozen arctic foods products in retail stores	Consultation with industry, funding support	Retailers, Economic & Tourism	M	1988	Ongoing
Development of Territorial Trade Systems					
• Facilitate producer/market awareness (establish supply-demand linkages)	Develop information packages, product and price lists, trade delegations	BRC, private sector, Economic Development & Tourism	×	1988	Ongoing
• G.N.W.T. fish transport subsidy	Promote, assess needs for broadening policy to include other arctic foods	Economic Development & Tourism, BRC, Renewable Resources	M	1988	Ongoing
• Special commodity space available "rates" for arctic foods	Liaison with air carriers, disseminate information	Economic Development & Tourism, BRC	M	1988	Ongoing
Export Market Analysis					
• Arctic foods for export	Identify regional needs, assess surplus	Economic Development & Tourism, Renewable Resources, BRC	M	1989	
• Regulatory constraints to export	Identify, assess	Economic Development & Tourism, Renewable Resources	M	1988	

ARCTIC OOD / FISHERIES Cont'd)

• Price structures/competition in Southern Canada	Research, market feedback	Development & Tourism	M	1988
• Competitive positions of prospective Baffin producers	Research freight and other cost factors, market feedback	BRC, Economic Development Tourism	H	1988
• Participation of Southern buyers through input to pilot production projects, resource assessment, and marketing initiatives	Liaison, project consultation, feedback	Development & Tourism	H	1988
FFMC Review	Assess alternatives, pros and cons, regional position paper	Economic Development & Tourism	H	1989

ACTION PLAN: MARKET DEMAND

Program	Action	Responsible Agent	Priority/Timetable		Comments
ARCTIC FOODS / FISHERIES					
• Regional marketing strategy for arctic foods	Develop	Economic Development & Tourism, BRC, private sector retailers/ food service industry	M	1989	
• Marketing aids to Arctic foods industry:	Consult with private sector	Economic Development & Tourism, BRC	H	1988	Ongoing
Fisheries, arctic food crops					
Labels, specific packaging					
- Media ads, poster					
- Samples and displays					
- Recipe cards					
- Culinary events and hospitality wards					
- education	Packages to retailers, distribution, media	Economic & Tourism	M	1988	Nutrition, of arctic foods, form (e.g. the quality advantages of winter caught, round-undressed char)
• G.N.W.T. institutional Use	Encourage institutional buyers to buy more arctic foods by offering quality and convenience at competitive prices	Baffin Arctic Foods Committee, Executive	×	1988	Food Service Contractors to government are encouraged/required to include arctic foods on menus

APPENDIX 1

'Project Summaries"

IGLOOLIK CHAR FISHERY (Export)

A two-year resource assessment program in 1985/86 established commercial quotas for 10 rivers in the Steensby Inlet area. Because of the high costs of resource assessment, development costs to date have exceeded $400,000. About one third of this amount has been left in the community in the way of employment income and business revenues.

Seasonal jobs created for each year of the resource assessment program numbered 20 - 25. Training in the requirements of test fishery methodology and product quality control was also provided.

The size and concentration of the quotas together with logistical/climatic factors has led us to consider that a summer-season char fishery would not be economically viable.

We are recommending therefore a winter-season fishery. During March of 1988, approximately 18,000 lb. of round char were harvested in the Steensby Inlet area, most of which was exported to FFMC in Winnipeg. FFMC "slacked off" the fish and proceeded it in their own plant. This harvesting and marketing scenario results in the optimal benefit to fishermen and Northern business. Capital costs are reduced, participation is maximized, the operating economics and logistics are enhanced, risks are diminished. Furthermore, the quality of the fish is the very highest possible since the fish is flash frozen instantly at -30° temperatures. This quality, together with a supply of fresh winter-caught fish to supplement FFMC'S aging stocks of summer fish has a beneficial impact on market development for char as well.

A winter fishery which harvests 20,000 lb. of round char for export via FFMC produces the very highest direct income to the fishermen and the most attractive profit margin of any char fishery; e.g. total revenues of approximately $60,000 (after dressing fee) will leave approximately 70% of this amount in direct income to the fishermen, corporate profits, and community expenditures. There is potential for doubling the winter catch in the Steensby Inlet and for expanding this effort to Hall Beach (Hall Lake).

Winter (export) char fisheries are currently contrary to the DFO export regulations. This is in spite of the winter fisheries favorable economics and logistical, superior fish quality, market development benefits, and reduced pressure on the resource (no break-evens therefore no extensive harvesting required).

This is clearly a regulatory problem where the letter of the law is not in step with the spirit and intent of the law.

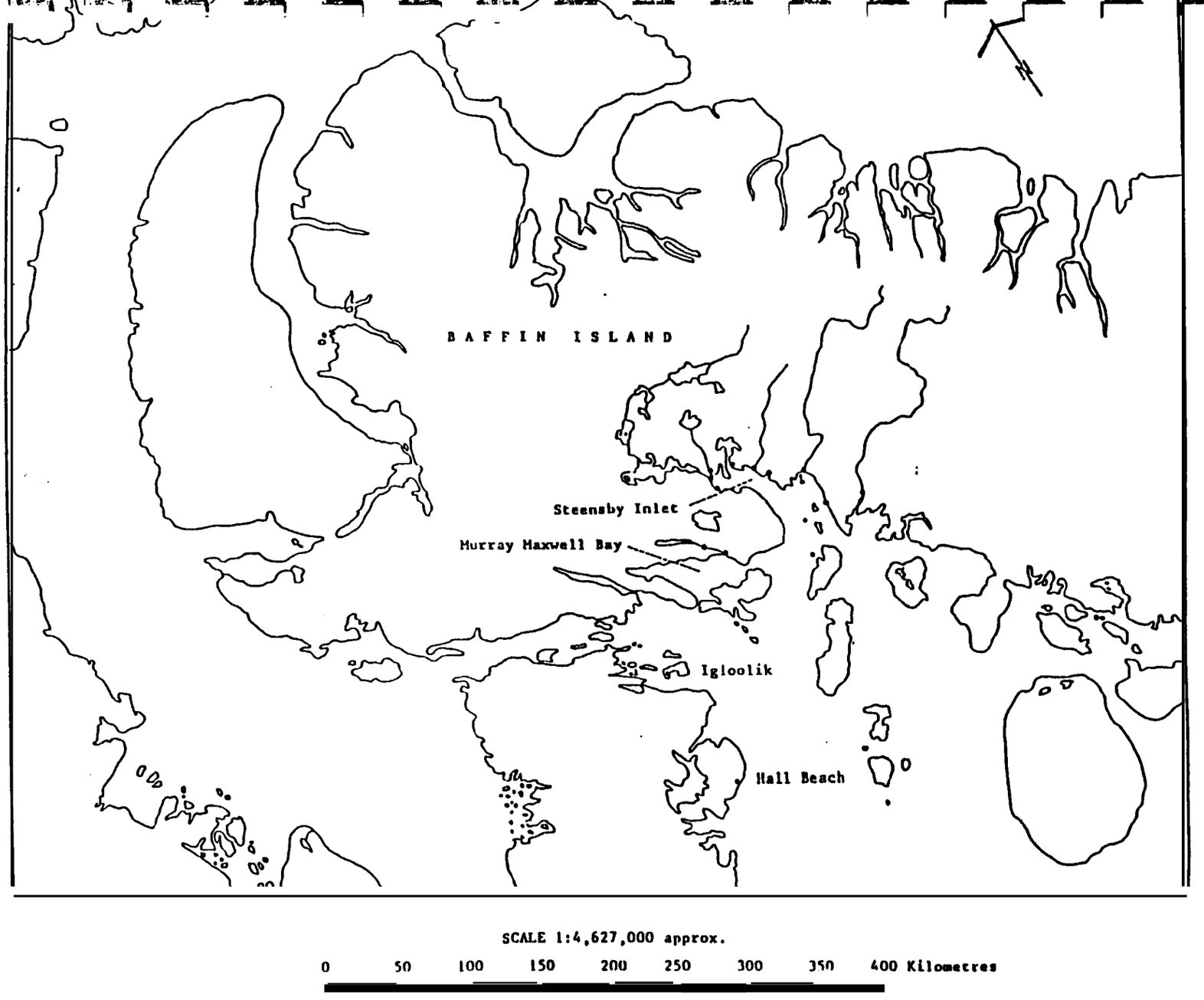
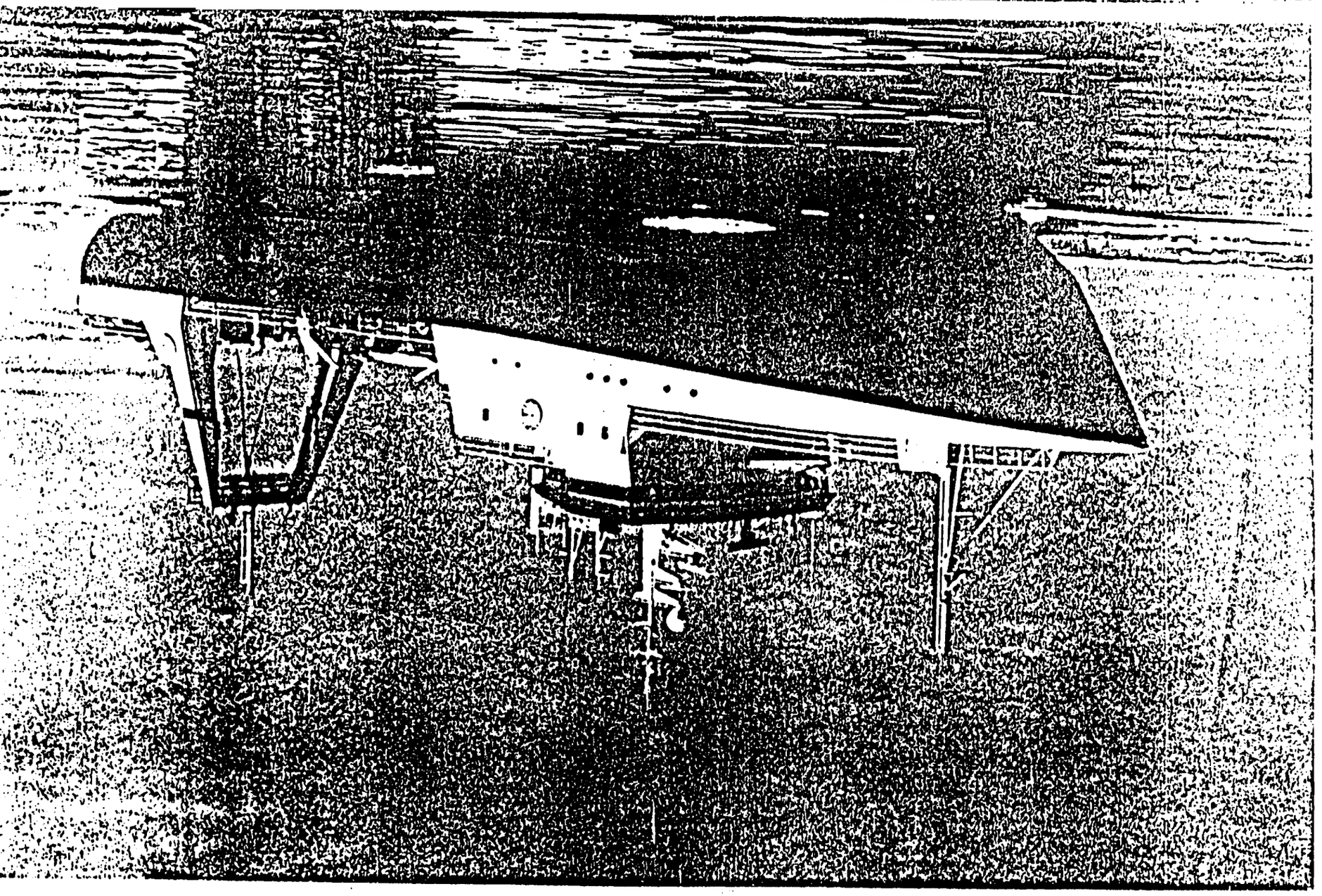


Fig. 1. Map of the Northern Baffin Region showing the Steensby Inlet study area



OFFSHORE SHRIMP FISHERY

This is the Baffin's most cost-effective fishery.

Benefits

Employment income and other revenues form the fishery (travel, acconunodation, etc.) total more than $400,000 per year in Baffin. There are more than 25 seasonal positions over two rotations for Baffin Inuit crewmen, each of whom can earn more than $12,000 per rotation.

costs

Cost to the Government to date has been less than $50,000 for training workshops and a training needs assessment study, and $20,000 for travel costs incurred by G.N.W.T. staff in participating in industry-government meetings in Ottawa and Atlantic Canada.

This fishery has been very positive in terms of costs and benefits because of the high value of the shrimp species contiguous to our shores, and because of the capital and expertise available through a joint venture arrangement between Qiqiqtaaluk and Farocan.

Training

Besides the income opportunity in the shrimp fishery, there is training as well.

Arctic College in co-operation with Nova Scotia School of Fisheries is working with the industry to ensure that the Inuit component of the crew continues to grow to the point where Inuit form the majority of crew positions.

Scallop Fishery

CUMBERLAND SOUND

Thus far the principal effort in Cumberland Sound has been to assess the scallop resource and other factors in feasibility.

To do this effectively has involved bringing in expertise to provide supervision and training, and making capital investments; e.g. a new scallop boat for a Pangnirtung business.

After Year 2 of the test fishery is finished, we should get a (provisional) commercial quota from DFO. While it cannot be anticipated what the quota will be, it is quite probable the quota will be at least the quantity required for viability for an inshore scallop boat operating in the Cumberland Sound area: approximately 10,000 kg of meats. Eventually, with more fishing and more data, the quota might get worked up to the point where more than one dedicated inshore boat would be viable.

One scallop boat will provide up to 5 jobs, which will produce more than $50,000 in seasonal income. Local goods and services worth an additional $20,000 will be purchased.

Furthermore, to the extent a viable scallop fishery supplies product to a new fish plant, the fish plant itself will be more viable.

The scallops sell for more than $7.00 a lb. on the Territorial market where there is a much greater demand than supply.

The government contribution to development costs to date for the Cumberland Sound seal lop fishery (capital and O&M) total to approximately $250K. Another 100K+ is estimated for the final season of resource assessment in summer of 1988.

South Baffin Scallop Fishery

Resource assessment for an inshore scallop f· shery will proceed in co-operation with Makivik this summer.

An inshore scallop boat will be chartered from Northern Quebec for purposes of undertaking the'exploratory fishery.

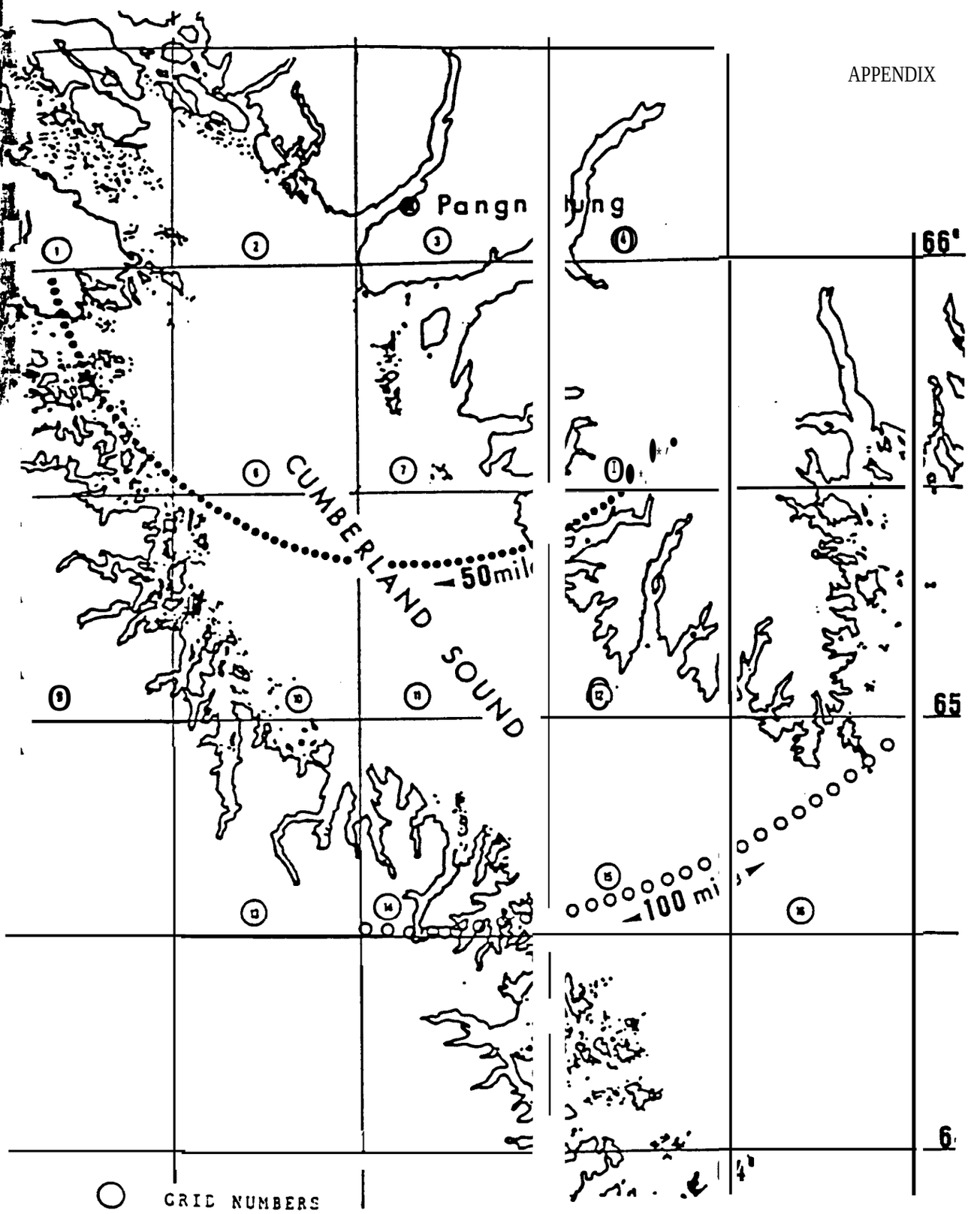
Inuit crew from Lake Harbour will benefit through receiving training and employment.

If commercially viable resources are indicated this summer, there will be more follow-up work required to establish commercial quotas with DFO.

Costs are estimated at $45K for the Baffin component for this cost-shared joint effort with Makivik.

Hap of **Cumberland Sound** Area

APPENDIX



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Cumberland Sound Turbot Fishery

This fishery began in the winter of 1986 when we brought over two Greenlanders to Pangnirtung to demonstrate ice-fishing techniques for turbot.

This effort was expanded last year with more local training, more problemsolving, and more fishing.

After the 1987 effort, DFO granted a commercial quota of 100 tonnes.

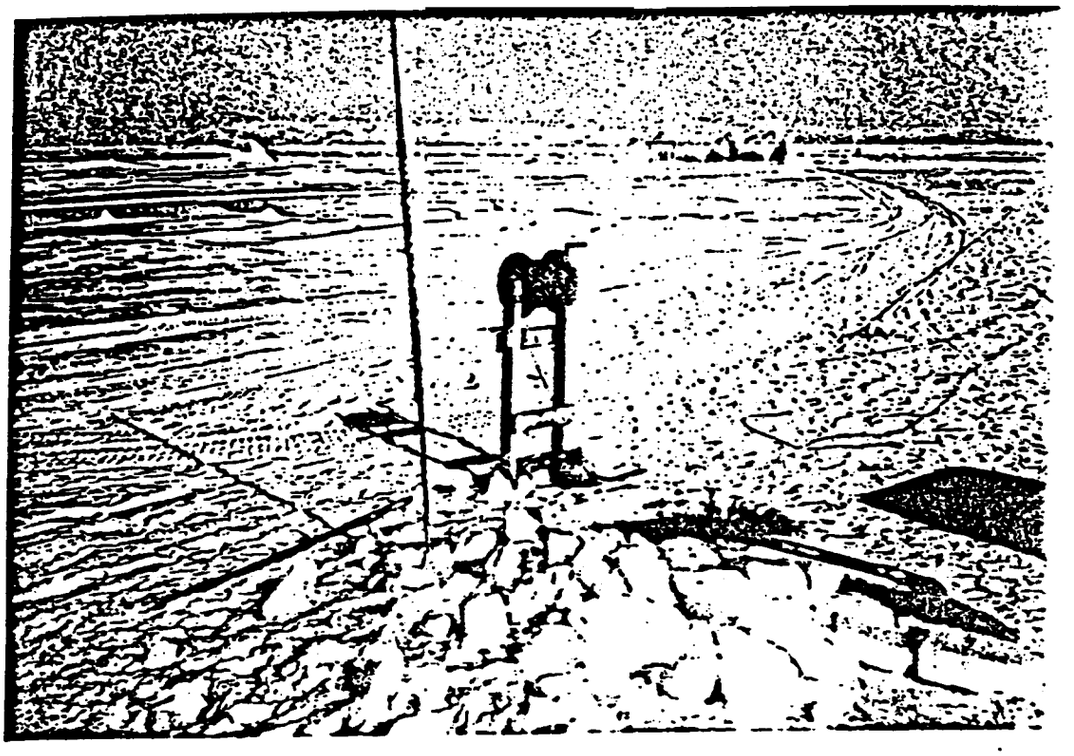
During this past winter we undertook a pilot project which incorporated technology development, market development, productivity improvement, and economic feasibility of the fishery. A final report has been received from the consultants which indicates the fishery can be viable provided that productivity can be increased through more harvesting and processing efficiency; e.g. the Cumberland Sound turbot fishery must be competitive with southern producers.

With increased productivity, stronger market demand, and a longer operating season (January to March) the existing plant will be able to process up to 60,000 lb. of fresh and frozen fillets. This would result in some $100,000 in new employment income to the community. There are indications that if the seasonal turbot fishery operates out of the existing HTA plant (for which the capital and O&M costs are borne by government through its designation as community infrastructure), the fishery can be viable in terms of paying all direct costs. In this scenario, the existing HTA plant functions as an incubator in fishery development.

This fishery now employs approximately 15 - 20 local persons on a season basis. This past season employment income from the turbot fishery was $20K for approximately 1.5 months of effort.

Development costs to date for this fishery have come to approximately **$200,000.**

Cumberland Sound Turbot Fishery
(Pangnirtung)



FFMC - (Freshwater Fish Marketing Corporation)

The regional and territorial demand for Baffin arctic char is increasing dramatically as quality and supply are improved and the product is promoted.

It is anticipated that there will be very little surplus of char for export from the N.W.T. by 1990. An exception might be the Igloolik-Hall Beach area where there are surplus quantities and where winter-caught round (undressed) char can be shipped directly to FFMC for processing and marketing on Co-op charter backhauls via Churchill and Winnipeg.

If the winter fishery is allowed to continue on a commercial (vs. "test fishery" basis), it would appear that the Baffin will derive more benefit from staying with FFMC (an exception to this may prove to be the Nettilling Lake fishery, which would be dedicated to fresh fish and markets in Eastern Canada.

Alternatively, if winter char fishing is disallowed for export purposes, it may be necessary to market outside the FFMC system directly to fish buyers in Montreal-Ottawa-Toronto to capture a more viable portion of the market price.

BAFFIN FISHERIES PROJECT - 6eneral

There are a number of smaller initiatives which are being considered for further pre-development effort.

While not enough is known about the resource to project a 3 year plan, there is some potential which requires further definition over at least one season.

Some of these possible opportunic areas are as follows:

Shellfish - Sanikiluaq

Small scale test-marketing of Belcher Islands sea products (mussels, sea urchins, sea cucumbers) to Quebec should be undertaken.

Results of this effort could warrant further resource assessment and upgrading of the processing facility.

A letter to Inspections Branch, DFO, in Hay River has requested advice and support.

Minter Turbot Fishery - Various Baffin Communities

A number of other (East Coast) Baffin communities are considered to have some potential for turbot fishing in a similar vein to Pangnirtung.

However, given that back-haul capacity and freight rates with respect to air service are most competitive out of Pangnirtung, proving the viability of that community's turbot fishery should receive development priority in terms of structured effort.

Arctic Char - Nettilling Lake

The largest commercial arctic char quota to be found in the Baffin is for Nettilling Lake (50,000 lb).

Commercial fisheries development at Nettilling has been limited, however, by its relative isolation and lack of basic infrastructure and service requirements; e.g. locally available labour, fuel, and commercial-size airstrip.

Furthermore, while this resource does not form part of the economic-base of any single community, there is competing community interest in it.

There are plans to test a char trap in the Burwash Bay area of Nettilling Lake. The objective is to test new technology at the same time as observe char migrations an introduce fresh arctic char to the Iqaluit market. Implications for export may also be extrapolated.

Atlantic Cod - Cumberland Sound and Lake Harbour

Preliminary work has begun to define the cod resource with limited test marketing in the Territorial context. More effort is needed here.

APPENDIX 2

Commercial Wildlife and Marine Resources in the Baffin Region (Commercial tags)

WALRUS

1. Sanikiluaq	10
2. Arctic Bay	10
3. Clyde River	20
	40

NARWHAL

1. Arctic Bay	100
2. Broughton Island	50
3. Cape Dorset	10
4. Clyde River	50
5. Creswell Bay (Resolute Bay O.P.)	12
6. Iqaluit	10
7. Grise Fiord	20
8. Hall Beach	10
9. Lake Harbour	10
10. Pangnirtung	40
11. Pond Inlet	100
12. Resolute Bay	20
	442

BELUGA WHALE

1. Pangnirtung	40

POLAR BEAR

1. Arctic Bay	12
2. Broughton Island	10
3. Cape Dorset	10
4. Clyde River	15
5. Iqaluit	18
6. Grise Fiord	33
7. Hall Beach	7
8. Iqaluit	18
9. Lake Harbour	13
10. Pangnirtung	14
11. Pond Inlet	15
12. Resolute Bay	34
13. Sanikiluaq	20

APPENDIX 3

Imputed (replacement) Value of 8affin Wildlife and Narine Resources

VALUE CALCULATIONS, FISH AND MARINE MAMMALS

Species	No. Killed	lit. (kg)	Total Wt. (w)	Unit Val ./Kg	Total Value
BAFFIN REGION:					
Bel uga	235	482.	113,270	$3.60	**$ 407,772.**
Narwhal	230	496.	114,080	$3.60	**410,688.**
Ringed seal	23,024	14.3	329,243	$5.51	**1,814,130.**
Bearded seal	794	98.4	78,130	$5.51	**430,494.**
Harp seal	1,877	43.1	80,899	$5.51	**445,752.**
Harbour seal	33	27.7	914	$5.51	**5,037.**
Hooded seal	11	**30.**	330	$5.51	**1,818.**
Walrus	253	**185.1**	46,830	$5.51	**258,035.**
Arctic char	102,360	**2.5**	255,900	$6.61	**1,691,499.**
Does not include marine mammals and shellfish					
Total					**$5,465,255.**

VALUE CALCULATIONS, WILDLIFE

Species	No. Killed	Wt. (Kg) /Animal	Total Ht. (Kg)	Price per Kg.	Total
BAFFIN REGION:					
Caribou	16,771	**48.**	**805,008**	$9.92	$7,985,679.30
Muskox	18	110.	**1,980**	$9.92	19,641.60
Polar bear	296	158.	**46,768**	$5.51	257,691.68
Arctic hare	2,580	2.3	**5,934**	$5.51	32,696.34
Ptarmigan	14,000	0.4	**5,600**	$5.59	31,304.00
Canada goose	3,810	2.4	**9,144**	$5.59	51,114.96
Snow goose	6,900	1.6	11,040	$5.59	61,713.60
Brant	152	1.0	**152**	$5.59	849.68
Eider	15,600	1.5	**23,400**	$5.59	130,806.00
Oldsquaw	410		**205**	$5.59	1,145.95
Black guillemot	820	(H)	**574**	$5.59	3,208.66
Thick billed murre	1,870	**(0.7)**	1,309	**$5.59**	7,317.31
Total					**$8,583,246.10**
TOTAL IMPUTED VALUE: Fish, Narine, Mammals and Wildlife					**$14,048,501.00**

Source: Resource Initiatives, Winnipeg

APPENDIX 4

Shrimp Fishing Operations - 1987 Fishing Season (Farocan and Qiqiqtaaluk Corporation

Training

Two introductory workshops held at Arctic College in Iqaluit with two instructors from Nova Scotia School of Fisheries.

COURSE 1: June 13 - June 15, 1987
12 students from 9 communities

COURSE 2: October 6 - October 9, 1987
14 students from 10 communities

Students introduced to ship board duties, first aid, emergency procedures, rope and net work.

Advanced course for qualified crewmen with 60 to 90 days sea time held and Pictou Fisheries College in Nova Scotia from April 5, 1988 to May 19, 1988. Three weeks of course towards Marine Emergency Duties II course and four weeks Advanced Net Work towards Atlantic Record Plan Deckhand Certificate.

INVOLVED: students from 5 Baffin Regional communities

Employment

Twenty three crewmen from nine Baffin communities have accumulated 1393 days of sea time and earn approximately $500,000.00 in total crewshares in the 1987 shrimp fishing season. In the 1987 season the ship carried eight Inuit out of a crew of approximately 23. In 1988 it is proposed to increase this number to 10 as more Inuit become more experienced and better trained. This means that with three complete crew rotations we expect to be employing at least 30 Inuit from Baffin Region in the 1988 fishing season.

Fishing Operations

The Qiqiqtaaluk Corporation shrimp license was fished with the vessel M/V Kiviuq I in 1987, catching the quota of 1000 tons plus exploratory fish and additional 331 tons. The joint license between Qiqiqtaaluk Corporation and Makivik Corporation harvested its 1000 tons quota plus 160 tons exploratory fishing with the vessel M/V Lumaaq. These vessels begin in 1988 season, but will be replaced by the "Kinguk" and the "Atlantic Champion", two ships currently being built in Norway.

Since the 1987 shrimp season has only just finished on April 30, 1988, the total payments to Qiqiqtaaluk Corporation have not been calculated, but are expected to total approximately $300,000.00.

APPENDIX 5

Economic Development & Tourism
Baffin Region

Fisheries Related Papers

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Hall Lake Test Fishery, Ransom, 1976

Report on the test fisheries for Arctic Char in the Steensby Inlet Area, N.W.T. 1985 - 86.
North/South Consultants, 1987

Under utilized Fisheries Resources, DFO, 1986

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Data on Arctic Char collected from Baffin Test Fisheries, 1975 - 79, DFO, 1981
Saltfish Act, DFO, 1980 (amended)

Economic Feasibility of Outfitting a Longliner with Freezing and Cold Storage Equipment for the Purpose of Processing Arctic Char, Godenberg, Dilk-1979

Engineering Feasibility for above

Feasibility Analysis for the Development and Operation of a Shrimp Fishery in the Hudson Strait - Ungava Bay Region, Sea-Borne Resources, 1986

Pre-feasibility Analysis of a Portable Commercial Fishing Operation for Chesterfield Inlet, N.W.T. DPA, 1984

Studies of Benthic Fauna & Macroalgae in Coasted Areas of S.E. Baffin Island
Aquatic Environments Ltd., 1978

Nearshore Marine Fisheries Investigation in Coastal Areas/ S.E. Baffin Island, A.E.L., 1978.

Killiniq Fisheries Project: Report on Biological Studies Allard and Gill is, Makivik Co-op, 1986

8affin Region Commercial Fisheries Development, Economic Development & Tourism, Dec., 1986

Draft Development Plan for a Baffin Island Fishing Industry, CoPro, Oct., 1986

- Halibut ’87 (winter fishing) Curtis Mackay, April, 1987
- Halibut Fishing Course, Spring, 1986
- **Nettilling** Lake Test Fishery, Land & Ransom, 1975
- Canadian Fisheries: Imports Gov’t of Canada Jan., 1984
- Canadian Fisheries: Products & Stocks Gov’t of Canada Jan., 1984
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- Canadian Fisheries: Exports Gov’t of Canada Feb., 1984
- World Market Opportunities: Gov’t of Canada 1978
- Fish Inspection Regulations: Schedules A & B Handbook of Compliance DFO
- Cumberland Sound Test Fishing Project, MacKay, 1985
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- A Review of the Biology and Fisheries for Roundnose Grenadier, Greenland Halibut and Northern Shrimp in David Strait, Atkinson et al, 1982
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  McGowan, 1985
- USSR & Faraese Fisheries for Greenland Halibut in Davis Strait (Nafo Subarea O) DFO Correspondence to Simpson, 1986
- Territorial Renewable Resource Development for Fisheries - A Second Thought, Northword, 1986 (for DFO)
- Briefing Book: Northern Shrimp Advisory Committee DFO, 1986
- Northern Food Conference, Economic Development & Tourism, 1987
- Northern Fishery Statistics, NAFO, 1984
- Freshwater Fish Marketing Act DFO, 1985 (amended)
- Canadian Market Potential for Smoked Arctic Char, DPA consulting, 1980
- 1986 Seafood Catalog, 1986
- Seafood Marketing Guide
- The Seafood Handbook, 1986
- The Effect of Exploitation on the Arctic Char Popu” ation of the Sylvia Grinnell River, N.W.T., Kristofferson, 1983
- The Future of the Atlantic Fisheries, The Institute, 1983

Canada’s Fishing Industry, Gov’t of Canada

Commercial Fisheries of the N.W.T.: An Historical Perspective, North/South consultants, 1987

A Summary of Observed 1983 - 84 Greenland Halibut Fisheries in (Nafo) 1,2,03 (Davis St.).
DFO, 1986

Plant Reinvestment Analysis for the Commercial Fisheries in the Province of Saskatchewan DFO, 1979

APPENDIX 6

Economic Development & Tourism
Baffin

Address to Renewable Resource Officers

Renewable Resource Development: Our Respective Roles (as I see it)

It is no great revelation to say that our respective Departments are under increasing pressure to develop renewable resource opportunities.

There are high expectations for renewable resource development which have their roots in politics, and in disappointments in other sectors including the non-renewable. The Renewable holds the promise of insulating ourselves a little from the boom-and-bust non-renewable sector, which also poses environmental risks. The Renewable also supports the traditional land-based lifestyle which many Northerners prefer.

Our mandates are fundamentally different, however, there are points of overlap where our areas of responsibility merge. I attempt to summarize the points of departure and convergence below:

MANDATE

DEPT. OF RENEWABLE RESOURCES	ECON. DEV. & TOURISM
management of wildlife sources	- development of opportunities
focus on the traditional or native economy	- typical focus on wage economy
H.T.A. Development	- emphasis on private Sector Development

Renewable Resource Development

KEY CONCEPTS

Conservation, subsistence hunting, basic intersettlement trade, land-based lifestyle	investment, risk, profit, wage employment, and people management
- economic underlain by cultural and social considerations	- economic and "rationality" are primary importance (though not always achieved)

usually H.T.A. 's and primary producers

usually proprietorships, partnerships, limited companies and Co-ops.

CONVERGENCE

Our roles converge wherever development and renewable resources come together in one breath.

Also, new forms of evaluating feasibility are themselves bringing our Departments together. e.g. "socio-economic feasibility".

This suggests we cannot always look at renewable resource development in a classic capitalist sense.

We also look at the cultural and social environment in which resource harvesting and processing takes place. Renewable resource harvesting is at the heart of traditional Inuit culture.

Some funding programs such as the Primary Producers section of special ARDA are based on a broader definition of project feasibility.

Also, a reality that brings our Departments together is that in renewable resource development, **economic viability** = biological viability. For example, production volumes cannot exceed sustainable yields or there will quickly be failures in, first, biological viability, then economic viability.

In spite of the overlap, there is still what seems to be an inherent tension between the management/control as opposed to the commercial development of 'wildlife resources. Each dominant focus seems to develop its own bias. We see renewable resource development as business first, renewable resource second. You see renewable resource first, business second.

Sometime the inherent tensions or seeming contradiction between management/control and development is reflected in the tension between our respective departments.

The idea I want to develop here is that we as two Departments working together can together achieve objectives that either one of us would have much difficulty in achieving alone. In some areas, we have made progress in working together. In other areas, we haven't. I hope we are through our growing pains and are now on a new threshold of co-operation in renewable resource development.

Together we can handle the apparent dilemma of management and development. And together we have:

- more collective resources including money, equipment, people, community support, Ninisters, etc.

We also have more collective knowledge and experience, and more contact with

APPENDIX 7 **Some Market Feedback**

PUT AWAY IN FILE

Les Aliments AUFFREY Foods

COURTIER EN ALIMENTATION / FOOD BROKERS

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FAX : (514)284-2282
TLX:055-62171 MTL

Apri 1 22, 1988

Economic Development and Tourism
Iqaluit, N.W. T. XOA OHO

Attent i on: Mr. Larry Simpson

Dear Mr. Simpson:-

This letter is to furnish you with some information with regard to the fresh arctic turbot fillets and fresh arctic whole dressed turbot that we have been receiving for the past month or so from Mr. Kevin Smart and Mr. Gary Magee in Baffin Island. We are very pleased to tell you that we are most satisfied with the quality of the fillets and the whole fish. The product always arrives in Montreal in tip shape and they are very fresh indeed. This is extremely important as anything less than fresh would be rejected by our important customers. The fillets are nice and big and firm as well as attractive in looks. The whole dressed fish is nicely prepared and the packaging of both types of fish has been to our complete satisfaction. With regard to our requirements next year, we would estimate that the market potential would be for at least 12,000 lbs. of fillets and 6000 lbs. of whole dressed each week for the entire year. I would like to say that we would be interested in purchasing more, however it is difficult to say at this time because the entire market potential has not been fully developed and of course quantities would depend on prices at the time. It appears that we would be able to buy on a regular basis for our markets in Montreal, Quebec City, Toronto, Ottawa and possibly Western Canada. Before the Turbot season opens in the Gaspé, the prices could be strong, however, when the Gaspé season commences, prices would have to be in line with competition or within reason. We are very satisfied with the kind co-operation of Mr. Kevin Smart, Mr. Gary Magee and all those people involved with the catching and processing of the turbot in Baffin Island. We look forward to a close working relationship with these good people in the future. If you have any quiries we would be pleased to hear from you.

Yours very truly,

Raymond Thibault and Don Wilson