

A STRATEGIC FRAMEWORK FOR NUNAVUT FISHERIES

CONSULTATION DOCUMENT

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Brubacher Development Strategies Inc.

Ottawa • 613 715-9708

dbrubacher@cyberus.ca



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Glossary

BFC – Baffin Fisheries Coalition Inc.: A group of HTOs, private Inuit companies, and Pangnirtung Fisheries Inc. that has been allocated the entire Canadian share of 0A turbot quota. They also hold some shrimp quota.

DFO – Fisheries and Oceans Canada. The federal department responsible for fisheries management.

HTOs – Hunter and Trapper Organisations. These are organisations that have management responsibilities designated under the Nunavut Land Claims Agreement. They allocate commercial char quota and may regulate the harvesting practices of their members.

NDC – Nunavut Development Corporation. A Crown corporation of the Government of Nunavut mandated to support subsidiary businesses in order to create jobs in targeted sectors.

NFWG – Nunavut Fisheries Working Group. An informal working group made up of employees of the Government of Nunavut, Nunavut Tunngavik Inc., and the Nunavut Wildlife Management Board.

NLCA – The Nunavut Land Claims Agreement of 1993.

NTI – Nunavut Tunngavik Incorporated. The Inuit organisation representing the interests of Inuit beneficiaries under the Nunavut Land Claims Agreement. NTI is responsible to implement the Inuit obligations of the Agreement and ensures that other parties meet their obligations.

NWMB – Nunavut Wildlife Management Board. An Institution of Public Governance established under the NLCA to be the main instrument of fish and wildlife management in the Nunavut Settlement Area (NSA). The Board also has advisory authority in the marine areas adjacent to the NSA, referred to as Zones I and II. The NWMB allocates quota to Nunavut interests according to criteria set by the Board.

NSA – The Nunavut Settlement Area of the NLCA.

Zone I and Zone II – Areas specified in the NLCA that are outside the NSA but in which Nunavut maintains certain interests and roles.

INTRODUCTION: A STRATEGIC FRAMEWORK FOR NUNAVUT FISHERIES

Nunavut fisheries development is generating considerable interest and expectations within the territory. This is not surprising, given the maritime nature of the territory and the close relationship of Nunavummiut with the sea. Recent allocations in the turbot fishery have galvanized the sense of opportunity and urgency in the sector.

In the 2003 Nunavut Economic Development Strategy, the potential for the fishery sectors of Nunavut's economy to provide significant benefits to the people and communities of this territory was clearly recognized. Currently, much of the wealth generated by Nunavut fisheries never enters Nunavut's economy. As a result, major opportunities to add value to the territory based on fisheries development are available. These gains will be dependent on the ability of Nunavut's political decision-makers, land claims organisations, and entrepreneurs to make solid strategic choices.

The Government of Nunavut recognises the importance of developing a clear strategy that builds on broad consensus on how fisheries development can proceed in an effective and coordinated manner. The department recognizes that such a strategy must focus on creating economic benefits that will flow to individuals, communities and businesses within Nunavut. A process of consultation will be required in order to generate open and informed discussion of the strategic issues facing fisheries development in the territory.

To provide background support for such a consultation process, the Fisheries Directorate engaged Brubacher Development Strategies Inc. to prepare a strategy framework document highlighting the key issues that need to be addressed, and recommending approaches to resolve these development issues.

1.0 VISION — DESIRED INDUSTRY STRUCTURE

1.1 ESTABLISHING A VISION

Understanding how Nunavummiut want their fisheries to look must be the first step in any fisheries strategy. Several questions can help to guide the 'visioning' process:

- What should Nunavut's fisheries look like in terms of inshore harvesting, onshore processing, offshore harvesting, offshore processing, domestic markets within the territory and export markets beyond the territory, contribution to the labour market, and so on?
- Once all stakeholders negotiate where we agree to head, we need to make decisions that support movement in these directions and avoid decisions that may foreclose desired futures.
- In all these decisions, we need to weigh present, tangible opportunities against future, uncertain potential opportunities.

While this visioning process needs to be carried out during the strategy consultation process, enough is known from discussion with individuals, Inuit organisations and others to begin to identify key parts of a Nunavut fisheries vision.

Elements of a Nunavut Fisheries Vision

- Protected marine and aquatic ecosystems and fish stocks
- Jobs created inside communities
- Opportunities for both men and women
- Locally-owned, community-based businesses
- Community infrastructure and processing facilities
- Sales of fisheries products both within Nunavut and to high-value markets outside the territory.

1.2 PRINCIPLES TO GUIDE FISHERIES DEVELOPMENT

The Nunavut Economic Development Strategy presents a set of five principles for economic development that are accepted by broad group of organisations in the territory:

- **Cultural Integrity** – preserving the primary relationships and values that come from Inuit Qaujimajatuqangit;
- **Determination and realism** – recognizing our limits and building on strengths;
- **Community control** – placing control of economic development in the hands of community members;
- **Co-operation and co-ordination** – integrating economic development activities with community efforts in the areas of community wellness, community learning and community governance; and,
- **Sustainability** – building sustainable economies to benefit future generations.

These principles can help to guide the process of developing a fisheries strategy for the territory:

Cultural integrity

- Highlights the importance of the domestic economy char fishery as a reflection of Inuit primary relationships with the land. Supports a view that fisheries opportunities fit within the diverse annual round of activities that make up sustainable and resilient Inuit livelihoods.

Determination and realism

- Use realistic assessments as a basis for planning, and then build a strategy on the strengths of the territory.

Community control

- Reminds decision-makers that economic development decisions need to arise out of community processes and reflect community priorities. Success of development initiatives depends on this, as communities ultimately hold the levers that will make or break these initiatives.

Co-operation and co-ordination

- Links the economic benefits of fisheries development with the social benefits that arise from job creation, improvement of community infrastructure, increased skills gained through training, and so on.

Sustainability

- Emphasises the need to ensure that fisheries activities build on robust conservation practices as well as building economic incentives that don't build on short-term opportunities at a cost of longer-term development.

1.3 GOALS FOR FISHERIES DEVELOPMENT

Several broad goals can be set out to guide fisheries strategy development:

- Improve knowledge of fish stocks and fisheries ecosystems
- Gain a fair share of Nunavut's adjacent fisheries quota
- Fish offshore quota
- Process offshore fish in Nunavut
- Expand inshore harvesting
- Develop emerging fisheries
- Increase value of char fishery
- Improve the infrastructure, organisational capacity, human skills required to support these goals
- Increase retail sales of Nunavut fisheries products in Nunavut

In order to make progress in Nunavut's fisheries development, clear and specific goals, supported by practical strategies, developed and agreed to in the face of careful consideration of the strategic alternatives, are now needed. The above list provides a point from which to begin.

Over the past few years significant progress has been made in many of these goal areas. However major opportunities for further progress remain to be realised. A strategy will be called on to prioritise these opportunities, providing direction in terms of timing of various projects, the relative level of scarce resource to apply to competing priorities, and the systems that will determine how benefits are gained and distributed within the territory.

In order to gain some perspective on the relative benefits that achieving these goals could have on Nunavut's economy, clear business models and net benefit assessments are required. Analysis has yet to be carried out to determine the net economic benefit to the Nunavut economy of these activities. Business plans also need to be developed for some sectors to identify their viability as stand-alone enterprises, or their requirement for on-going subsidy and the expected 'return on tax-payer investment' of such subsidies.

The Nunavut Economic Development Strategy recognises that to improve the contribution of fish resources to the territory's social and economic development will require investment in infrastructure, training, knowledge, and organisational development. The fuel to drive the implementation of any strategy will be financial resources and crystal clear organisational focus and commitment.

2.0 CRITICAL CHALLENGE

Inshore – Offshore Development Which Comes First?

Characteristics of Inshore and Offshore Fisheries Development Strategies

Onshore Processing:

- high return to the Nunavut economy, distributed widely within specific communities.
- high costs of production—plants have not been profitable as stand-alone enterprises.
- a strategy focused solely on increased processing capacity may be unable to generate the revenue pools needed to support further fisheries development activities—science, infrastructure, harvest capacity, training. However, there has been little effort to date to assess this development strategy.

Inshore Harvesting:

- current inshore harvest activities include arctic char for domestic and commercial use, and turbot fished through the ice in Cumberland Sound.
- commercial inshore harvest expansion depends on infrastructure development—processing plants and/or cold storage facilities, vessels and harbours.
- need science to determine the viability of inshore stocks for commercial use.

Offshore Harvesting:

- currently Nunavut's only involvement in offshore is through sale of quota and as vessel crew
- gaining harvest capacity could help Nunavut gain some control in fisheries development.
- lower return to the Nunavut economy than inshore processing/harvesting since much of the landed value of sales goes to purchase goods and services the Nunavut economy cannot supply.
- crew opportunities may be available to individuals from many communities.
- if profits are generated this strategy might support development of inshore fisheries by generating a pool of funds—provided that these funds are not all paid out as shareholder dividends.

A key decision that needs to be made will be where to focus the limited organisational capacity, political focus, and funding agency support—inshore development of processing and harvesting capacity, offshore harvesting capacity acquisition, or both?

Offshore Harvest Capacity

The offshore option may be less complicated politically and organisationally, since the offshore model has already been well-demonstrated by southern enterprises. It is reasonable to expect that a viable business plan for Nunavut interests to gain ownership of, or equity in, offshore harvesting capacity can be designed.

It is also reasonable to expect, though, that the net gain of benefit to Nunavut's economy from simple transfer of ownership from outside the territory to inside the territory may be minor compared to the benefit that could be achieved from inshore processing development. This is due to the fact that Nunavut's economy has little capacity to provide many of the goods and services required by the offshore sector. If this capacity did exist, these goods and services could be provided now to the existing southern-owned offshore fleet. Benefits from crew income and quota payments are already available based on the status quo situation.

The net benefit from vessel ownership geared toward offshore harvesting will thus arise from the enterprise profit, along with any potential indirect effects ‘ownership’ may have on future quota allocation decisions or on the level of interest and commitment generated amongst Inuit to work as crew on an Inuit-owned vessel.

Vessel ownership may also provide benefits by avoiding the current situation where southern vessel owners are gaining strong royalty negotiation positions based on their knowledge of the arctic stocks and on DFO’s position that only Canadian vessels be allowed to fish in these areas. Owning vessels and actively fishing Nunavut’s quota will ensure that Nunavut interests are not left ‘at the mercy’ of outside interests.

To the extent that profits are generated, these can be easily divided amongst the different shareholders. If these are community organisations or perhaps a coalition such as the existing Baffin Fisheries Coalition (BFC), then these revenues can join quota revenues to be harnessed in support of other fisheries development priorities.

Inshore Processing Capacity

Developing inshore processing capacity contrasts greatly with offshore harvest capacity acquisition. This approach would create new economic activity within Nunavut—new processing jobs, new opportunities to supply goods and services to new plants (and to participate in the initial construction of such plants). The availability of processing facilities in communities that do not currently have such capacity will open up the possibility for synergies to arise from local commercial char fishing, from emerging fisheries, and/or from fishing of turbot from inshore if this proves to be viable.

The net economic benefits created through these activities can be reasonably expected to significantly exceed those presented by acquiring offshore harvest capacity in both the short and longer terms.

However, inshore development of processing capacity presents at least two major challenges. First is a ‘political’ challenge. With offshore vessels the benefits accruing to Nunavut are easily divisible—share ownership determines how profits are divided, and crew positions can be assigned on the basis of readily designed policy, perhaps developed by the vessel-owning entity. Processing plants, on the other hand, will need to go to one or more particular communities. All labour at these plants can be expected to be supplied from the ‘winning’ communities. All synergistic benefits will also go to these same communities. Who makes the decision about what community gets a new plant?

A second challenge is an economic one. While processing plants may provide a net benefit to the Nunavut economy, they may also require on-going subsidies. Where will these subsidy dollars come from? One option might be to divert royalties from sale of offshore quota toward on-shore plants. The consequence of this may be, though, that there will be little revenue available to undertake further development...say of offshore or inshore harvesting capacity. A further challenge may also arise related to infrastructure logistics. To operate a processing facility requires the ability to offload fish from large vessels in a timely, cost-effective, and safe manner. The Pangnirtung plant manages this with difficulty. Other communities may be faced with similar or different conditions.

Comparison Of Inshore And Offshore Development

| Sector | Economic Benefit To Nunavut | Comments |
|---------------------------|--|---|
| Inshore | <ul style="list-style-type: none"> - Fishers' income from sale of fish to plants. - Local goods and services purchased by fishermen and by processing plants - Plant wages and salaries. - Retail margin on all product sold within the territory—essentially import substitution as these purchases replace expensive food imports. <p>(Note that most of the value of sales of processed fish enters Nunavut's economy, The major leakage will be purchase of fish from vessels not owned by Nunavut interests.)</p> <p>(Note that to date, plants have not generated profits, rather they have required subsidy. Overall, inshore development yields a major net positive economic benefit to Nunavut.)</p> | <p>Distributed to many individuals in wages and fishers income</p> <p>Both men and women get jobs in communities</p> <p>No profit: may lose flexibility to finance other development activities</p> <p>May provide management capacity for synergistic inshore development</p> <p>Difficult political choice: where do the plants go?</p> |
| Offshore | <ul style="list-style-type: none"> - Crew wages (Note that crew wages are currently being gained by Inuit working on the vessels fishing Nunavut quota through quota purchase arrangements—the only added benefit from purchasing offshore vessels will be crew incomes which can only be generated if Inuit own a vessel. Its not entirely clear what increment this may represent). - Enterprise profits. These may be small initially, as financing and management costs may be initially high. These costs can be expected to flow out of Nunavut's economy. Over the longer term, offshore profits should increase. (Note that much or even most of the value of fish caught by offshore vessels will never enter the Nunavut economy—even with long term development) - Protect quota value and gain knowledge of the stocks. "Controlling our destiny" argument. | <p>Nunavut economy can supply some Inuit crew and can provide vessel ownership based on available quota and existing shrimp licenses held by Qikiqtaaluk Corporation.</p> <p>Profits might be used for development or diverted for other purposes.</p> <p>Benefits from the offshore model are easily divisible presenting few politically charged decisions.</p> <p>Risk that development agenda could be side-tracked by either success (groups receiving profits become satisfied with what they earn), or failure (preoccupation to keep vessel liquid and afloat, no profits or quota revenue to channel back into development).</p> |
| Both Inshore and Offshore | <p>If both inshore and offshore development takes place, additional benefits will be gained:</p> <ul style="list-style-type: none"> - purchase of fish from Nunavut offshore harvesters - services could be provided to offshore vessels from local harbours: cold storage facilities and marine services, crew rotation nodes etc. | <p>The critical issue is which should be developed first— inshore plants or offshore harvesting capacity?</p> <p>There are good arguments to be made for both alternatives <u>if</u> both cannot be pursued at the same time.</p> |

Achieving both offshore harvesting and inshore processing and harvesting

Nunavut needs to achieve both offshore and inshore harvesting and onshore processing capabilities. This will create positive synergies between these sectors. Fish for the plants could then be purchased entirely within the Nunavut economy—stopping a major loss of economic value from the plants.

Inshore infrastructure developed in support of local plants could also be used to facilitate the sale of some goods and services to offshore vessels (both Nunavut-owned and others). Vessels might save steaming days by doing some crew rotations from a Nunavut node. This might also have positive Inuit labour market effects, with Inuit able to access a fishing rotation from a Nunavut point-of-departure rather than from a southern city. The above table summarizes this discussion.

3.0 STRATEGIC AREAS AND RECOMMENDATIONS

Seven strategic areas need to be considered in Nunavut's fisheries strategy. These are shown in the figure below and include:

- Science and Conservation
- Organisational Capacity
- Funding and Revenue Generation
- Licenses and Quota
- Labour Market
- Infrastructure
- Business Capacity and Support

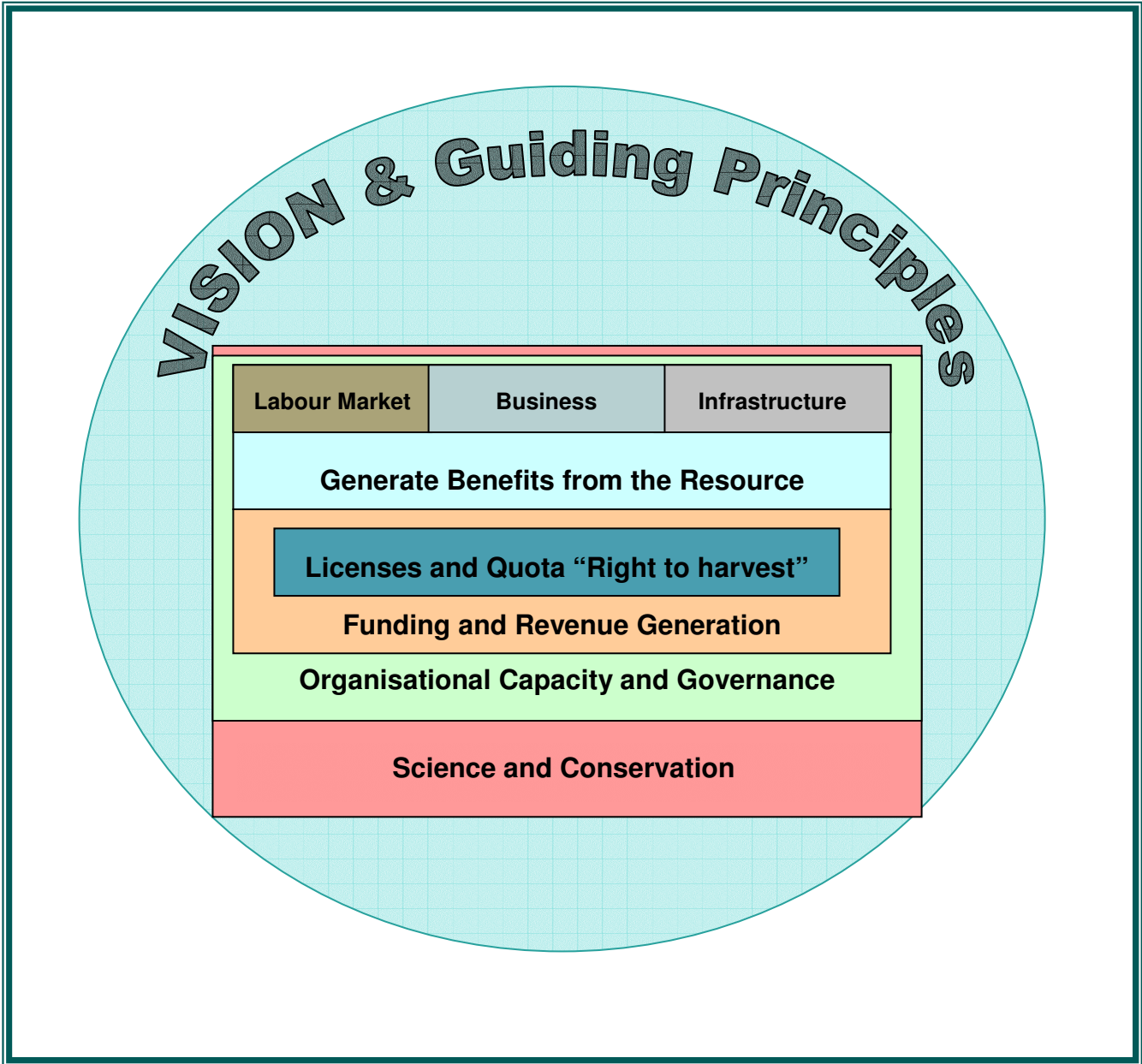
These areas fit closely together and must be addressed in a coordinated way in order to build a solid fisheries sector that generates the maximum benefit possible to Nunavummiut.

Each of these areas requires policy development and program activities to achieve desired outcomes. The following section provides a brief outline of each strategic area—background to the issues, current progress, challenges, and strategic issues. This is followed by recommendations for consideration and reflection.

The model below, shows how these areas fit together to form a cohesive strategic framework:

- *Science and Conservation* is at the foundation of the strategy. Without a healthy resource there is no fishery. Without the assurance that commercial harvesting will not harm species or ecosystems of significance to Inuit, there will be no support for the fishery.
- *Organisational Capacity and Governance* issues need to be addressed to ensure someone is available to champion development activities and that these activities are accountable to the public.
- *Funding and Revenue Generation* is the engine that drives development.
- *Licenses and Quota* provide the right to harvest the resource.
- The *Ability to Benefit* from this right depends on an adequately developed *Labour Market, Business Sector, and Infrastructure*.

Figure 1: Components of a Nunavut Fisheries Strategy



3.1 SCIENCE AND CONSERVATION

Strategy Area: Building Conservation Into The Sector—Getting The Incentives Right

Recommendations:

1. Business planning for fishing in Nunavut's adjacent waters, as well as for inshore harvesting, need to include an assessment of the potential pressures that proposed developments will place on the resource. This analysis should include an assessment of risk that failure in one area of the plan (say, declining market prices or increasing interest rates) may have on demand on the resource. Once major funding commitments have been made and livelihoods developed, political pressure has been known to 'trump' conservation concerns.
2. The current control of the OA fishery by Nunavut interests should be guaranteed, even if choices are made to fish using conservation methods that harvest below the Total Allowable Catch (TAC). Avoid a 'fish-it or lose-it' policy.

Strategy Area: A Nunavut Fisheries Science Agenda—Need For Federal Support

Recommendations:

3. The Nunavut Fisheries Working Group (NFWG) and DFO should develop a Nunavut Fisheries Science Agenda to address strategically important research areas, including fundamental marine ecosystem and hydrographical research, research needed to assess and model climate change impacts, research in support of inshore and offshore industry development, and research related to the conservation and domestic and commercial use of arctic char.
4. The NFWG and DFO should design a multi-year funding strategy to implement the Nunavut Fisheries Science Agenda. This strategy should incorporate both federal as well as industry funding commitments, and should address issues related to both the char as well as marine fisheries.

Background to the issues

Major efforts are required to develop the knowledge base on which to build Nunavut's fishing sector. Sector development must respect Inuit values associated with management and use of the land, sea and its resources. Development also needs to respond to the critical need to create socio-economic opportunities for the communities of Nunavut. Only with high-quality, ecosystem-based knowledge that integrates both scientific and Inuit values and insights can the tension between conservation and urgent development need have a hope of being successfully mediated.

Assessment of char stocks to determine the appropriateness of existing commercial quota and to develop experimental quotas is needed. Development and testing of new char harvesting techniques such as fish wheels may hold potential. Identifying turbot populations in Baffin's fjords and gathering the science needed to determine the nature of Cumberland Sound stocks are further areas of priority need.

The collapse of the Atlantic cod fishery and the subsequent socio-economic upheaval amongst families and entire communities that were dependent on that fishery galvanized the attention of managers, politicians and other stakeholders on the need to elevate conservation of stocks to the top priority in fisheries development considerations. Yet little is known of the ecology of

turbot stocks—adequate tagging studies to determine the relation between these stocks have not been done.

A multi-species, ecosystem approach is needed to develop a base of fundamental knowledge of Nunavut's marine resources. This research needs to build on both scientific and Inuit Qaujimagatuaqangit approaches to environmental knowledge-generation and resource management. It will also require a balance of publicly-driven and industry-driven research.

Current progress

Early exploratory fishing efforts by Nunavut in 0A led to significant quota allocated to Nunavut from that area. Science in this area has used a blend of funding derived from industry and government sources. Using royalty revenues from 0A quota, new exploration has been supported in Cumberland Sound, Clyde River, Qikiqtarjuaq and elsewhere.

Challenges

Major science gaps exist. Char quotas require update, experimental char quotas need to be developed, *P. montagui* and *P. borealis* distributions are poorly known. Solid science is needed to determine if Cumberland Sound turbot stocks are separate from those of NAFO management area 0B. A fundamental understanding of the ecology of arctic aquatic systems is needed in order to make management decisions that promote sustainable use of resources. The relation between turbot populations in 0A and narwhal habitat and population status needs to be better understood. Climate change is expected to lead to dramatic changes in arctic water flows, leading to major management challenges—particularly if fundamental ecological research has not been undertaken. This involves species interactions, habitat characteristics, and interactions between fishing practices and habitat/species balance.

Two challenges relate to funding of the needed science. The first is a shift in DFO policy away from funding marine science. The current approach is that those who benefit from scientific research should pay for it. Thus, industry becomes responsible for stock assessment research. The problem here is that Nunavut's industry is at an incipient stage of development and has few resources available to invest in science. While the Baffin Fisheries Coalition has already re-invested revenues into science, these same limited revenues are equally needed in other areas of fisheries development—infrastructure, acquiring harvest capacity, training, and organisational capacity-building.

Secondly, much of the science that needs to be done in the arctic is not of a narrow industry-focused nature. Research geared to understanding fundamental multi-species ecology and the relations between species health and marine environmental conditions has a clear 'public' value.

Strategic issues

How should science be funded in the arctic?

- In the developed fisheries of the Atlantic, the trend is toward 'user-pay' models, where the industry that benefits from stock assessment data is asked to pay for it. However, during the development of the Atlantic fishery, science was paid for by government.
- In Nunavut, where the domestic industry is emerging, the user pay model will be less workable. If quota revenues are seen as an Inuit benefit, why would

Inuit support allocating these revenues to basic science and fisheries development—both of which have always been seen as public responsibilities?

- Allocating royalty revenues to science and exploration requires either that the quota be retained in a block—such as is currently the situation in OA, or that a portion of the revenue be taken off the top—essentially a ‘science tax’

How can a conservation ethic be incorporated into Nunavut’s emerging industry?

- Already, requests are being made to increase quota in OA.
- The Nunavut Wildlife Management Board (NWMB) is beginning to look at its role in fisheries management in terms of its management responsibility—recognising that it must avoid conflict of interest in the sense of becoming too deeply involved in the economic development aspects of the Nunavut fishery.
- There are Inuit perspectives in resource use that need to be incorporated. Avoidance of risk to species such as narwhal and its habitat is one such perspective.

Strategy Areas Related To Science and Conservation

Strategy Area: Building Conservation Into The Sector—Getting The Incentives Right

A trend in fisheries management is to engage the fishing industry, along with members of the public, in the conservation of fish stocks and their habitats. This can be done by bringing industry into the management decision-making process—helping to make decisions on gear restrictions and building in accountability to each other for fishing practices. Another approach is to provide a long-term interest in the health of fish stocks by restricting a fishery to a fixed group of fishing interests over a long period of time. This group will then share a mutual interest in the long-term health of the fishery.

The situation in Nunavut is currently mixed in relation to positive conservation incentives. An apparent expectation that Nunavut’s industry will develop entirely from the proceeds of its emerging fisheries capacity will create pressure to exploit stocks at a rate adequate to support high capital costs. Industry will be placed in a situation where it must aggressively seek higher returns in the short term simply to meet its costs. At the same time, in the OA fishery at least, Nunavut interests clearly have a long-term interest in the stocks and currently control the way these stocks are fished. Additionally, HTOs, which control the OA fishing industry, have expressed strong preference for what they perceive as high conservation standards—longlines over mobile gear, for example.

Recommendations:

- I. Business planning for fishing in Nunavut’s adjacent waters, as well as for inshore harvesting, need to include an assessment of the potential pressures that proposed developments will place on the resource. This analysis should include an assessment of risk that failure in one area of the plan (say, declining market prices or increasing interest rates) may have on demand on the resource. Once major funding commitments have been made and

livelihoods developed, political pressure has been known to 'trump' conservation concerns.

2. The current control of the OA fishery by Nunavut interests should be guaranteed, even if choices are made to fish using conservation methods that harvest below the Total Allowable Catch (TAC). Avoid a 'fish-it or lose-it' policy.

Strategy Area: A Nunavut Fisheries Science Agenda: Need For Federal Support

Current science efforts are not keeping up with our need to understand arctic marine ecosystems. They are also not providing the full range of knowledge needed to develop a sustainable marine-based economic sector for Nunavut. The base of knowledge of char stocks may also be outdated. Given the importance of this species to Nunavut's domestic or 'land-based' economy, along with the on-going development of the commercial char sector, a char science program is needed.

Recognising that science can be both a public good, as well as a private good, funding needs to blend both public and private investments.

Recommendations:

3. The Nunavut Fisheries Working Group (NFWG) and Fisheries and Oceans Canada (DFO) should develop a Nunavut Fisheries Science Agenda to address strategically important research areas, including fundamental marine ecosystem and hydrographical research, research needed to assess and model climate change impacts, research in support of inshore and offshore industry development, and research related to sustainable domestic and commercial use of arctic char.
4. The NFWG and DFO should design a multi-year funding strategy to implement the Nunavut Fisheries Science Agenda. This strategy should incorporate both federal as well as industry funding commitments, and should address issues related to both the char as well as marine fisheries.

3.2 ORGANISATIONAL CAPACITY AND GOVERNANCE

Strategy Area: Transparency And Accountability In The Use Of Public Resources

Recommendation:

5. Recipients of Nunavut quota should report publicly on how their use of this quota benefits Nunavut's economy.
6. A review of the membership, ownership, structure and level of public accountability of the Baffin Fisheries Coalition should be carried out in order to strengthen the organisational effectiveness of Nunavut's fisheries development 'champion.'

Strategy Area: Engaging DFO

Recommendation:

7. Begin a process of DFO re-engagement by involving the department in strategy consultations and by separating on-going allocation negotiations from discussions related to areas of common interest.
8. Work to create a higher political profile for Nunavut within DFO by advocating to bring Nunavut's fisheries files within one centralized office of the department— not spread between various regional and central offices.

Strategy Area: Management For Inshore Development—Seeking Synergies

Recommendation:

9. Management capacity from local processing plants could provide the on-going entrepreneurial and managerial guidance needed for the inshore fishery. Continue to support emerging fisheries on a pilot basis in order to determine their 'technical' viability. Include this information when assessing the potential returns of building new processing plants—looking for potential synergies in terms of shared management capacity.

Strategy Area: Coordinate Marketing Activities

Recommendation:

10. Expand efforts to coordinate the creation and promotion of a 'crisp and clean' Nunavut brand targeted at markets both within Nunavut as well as in strategic high-value export markets. This brand should be available both to the existing Nunavut Development Corporation (NDC) plants, as well as to independent producers who are able to meet the brand standards.

Background to the issues

To achieve successful implementation of all the components of a fisheries strategy in a coordinated way will require organisational 'champions.' These are required at a large-scale level for development of offshore turbot and shrimp resources, as well as for coordinating the market and supply issues surrounding on-shore processing. Organisational development is also required for community-based inshore fisheries development such as clams and other emerging species.

Given the large number of tasks involved, and the wide range of activities and stakeholder interests, organisational structures need to be carefully designed to ensure broad support. People from across stakeholder groups must have confidence that the whole strategy is being addressed and that all interests will gain benefits from strategy implementation.

Current progress

The organisational capacity for fisheries strategy implementation is much greater today than it was just five years ago. The Government of Nunavut (GN) now has a fisheries unit dedicated to fisheries development. Several Hunter and Trapper Organisations (HTOs), Pangnirtung Fisheries Inc. and some private companies have come together to form Baffin Fisheries Coalition Incorporated (BFC). The NWMB, NTI, and the GN have formed the Nunavut Fisheries Working Group. This group has good communications with the BFC.

The GN and DIAND have worked together on a range of small fisheries development projects. The success of these activities has helped to develop a relationship between DIAND and the emerging fisheries sector. Future progress may be achieved by building on this productive relationship. While the relationship with DFO has not been as successful, the prospects are improving with the emergence of the BFC as an industry group that has a track record in OA and is gaining resources to be applied toward fisheries development projects.

On a territorial level, the Nunavut Economic Forum has emerged as a broad-based group to advocate for and work on economic development issues in the territory. In addition, the Nunavut Development Corporation (NDC) has continued to play an important roles in the char fishery and in supporting turbot processing capacity through its processing plants.

Challenges

Federal Support

There is a need to more fully engage the policy and funding resources of the federal government in support of Nunavut's fisheries development objectives. In every other jurisdiction in Canada, the developmental stages of regional fisheries have been actively supported by DFO. By way of contrast, Nunavut's adjacent offshore fishery has been largely handed over to established Atlantic fisheries interests. Although current policy related to adjacency does not support this situation, other policy trends supporting capacity reduction, industry stability, and a general withdrawal of DFO from fisheries development—outside of southern Aboriginal interests—have worked against Nunavut's interests. Some specific challenges in this area include:

- Dispersal of DFO responsibility for Nunavut's fisheries across offices in Iqaluit, Winnipeg, St. John's and Ottawa dilutes what little political clout Nunavut holds. In each of the DFO offices outside Iqaluit, Nunavut interests represent only a minority voice amongst the other larger players.
- DFO has attempted to use the NLCA to deny Inuit access to programs generally available to other Aboriginal peoples. DFO's Atlantic Fisheries Strategy (AFS) provides a package of assistance that includes help for Aboriginal communities to gain economic benefits from their adjacent fisheries. It has, for example, provided nearly \$80 million over the past decade to transfer licenses to Aboriginal interests. None of this has been available to Nunavummiut. The Aboriginal Aquatic Resource and Oceans Management Program (AAROM) and the At-Sea Mentoring Initiative are additional DFO programs aimed at increasing Aboriginal capacity in the fisheries sector. These programs specifically exclude Nunavummiut on the basis that they have a land claims agreement.
- Engaging DFO in Nunavut fisheries development is challenged by current DFO policy trends. A current trend is to reduce processing and harvest capacity.

Nunavut wants to increase capacity — hence an uphill struggle in terms of DFO priorities. A current trend is to increase private sector responsibility for future development. Nunavut industry is not yet at a stage where it can bankroll the development process based on only a fraction of the territory's adjacent resources.

Entrepreneurial leadership for inshore development

Larger enterprises can support the cost of importing specialized managerial and entrepreneurial expertise from across the territory or from beyond territorial boundaries. During the development period of emerging fisheries, support may be required to carry out enterprise feasibility testing in situations where local entrepreneurs are not available. The model being applied in Qikiqtarjuaq is showing positive signs of success and could be applied to other emerging fisheries. Here local divers carry out their clam harvesting activities essentially as independent owner-operators, earning a set rate per kilogram of clams harvested. Entrepreneurial support—dealing with marketing, regulation, product inspection, harvest site preparation, and so on—is provided by specialized contractors from outside the territory. Initially paid for under a government-funded pilot project, management costs should be covered by project revenues, once production and markets are in place.

An alternative model that might also achieve the management support needed for emerging fisheries could be to harness 'surplus' management expertise from small processing plants. This would require that full-time managers be recruited for the plant, but still have some time available to support the emerging sector in their community. This model has not yet been tested in Nunavut, although some of the char plant managers already provide cross-sectoral support between char and caribou or char and muskox.

Governance

The issue of governance must be addressed, particularly in relation to the offshore turbot and shrimp fisheries. The quota assigned to Nunavut for these fisheries would seem to represent a 'public good.' If this is correct, then decisions about how to develop these fisheries need to be made in a way that is transparent to the Nunavut public. At the same time, it is reasonable that the existing criteria for allocation of quota—adjacency, community involvement, and so on—should come into play in these decisions. A challenge then is to develop a decision-making process that is open and yet still effective. Decisions need to take into account—and be seen to take into account—the diverse individual and community interests related to fisheries and fisheries development. Some critical issues that need to be considered and decided on include:

- Can Nunavut's fisheries capacity best be developed using a private sector or a public sector approach or a balance between both? Given that Nunavut quota allocations are not large, how can we experiment with a mix of fishery entrants (individuals, companies, birthright corporations, HTOs etc) without foreclosing future flexibility to build in the most effective directions.
- What frame of analysis will be used in determining 'effectiveness' and 'success' in Nunavut's fisheries. Economic return to Inuit? Profitability of a business? Socio-economic return to Nunavut?

Strategic issues

Arising from these considerations are four strategic issues:

1. How can DFO and, more generally, the federal government, be engaged in Nunavut's fisheries development?
2. Should Nunavut fisheries development be led by a public process of consultation and decision-making or should it be driven more by a private sector model? If public sector, how can strategy implementation avoid getting bogged down in politics and regional squabbling? If private sector, how can the legitimate public interest be served?
3. Can emerging inshore fisheries be successfully developed using imported management and entrepreneurial expertise. Or will this simply lead to an 'employee' orientation amongst local people who feel they are working for, rather than directing, the outside managers?
4. In the processing sector there are both private sector and quasi-public sector plants successfully operating in the territory. The NDC has a role in char 'branding' and marketing. Care needs to be taken, though, not to exclude private sector processors. They should be consulted and, if desired by them, allowed access to the same programs the NDC plants undertake.

Strategy Areas Related To Organisational Capacity And Governance

Representing Inuit Interests In Fisheries Decision-making

What is the 'constituency' that holds an interest in Nunavut's adjacent fish resources? This may be determined in accordance with existing NWMB allocation guidelines, where adjacent communities and communities with a history of fisheries involvement have the greatest interest.

Decision-making needs to involve the whole constituency. It should not be carried out solely by organisations or interests that represent only part of the population with a legitimate interest in the resource.

Aligning decision-making with constituency might include addressing gender and distribution of benefits.

Strategy Area: Transparency And Accountability In The Use Of Public Resources

The stakes in Nunavut fisheries are increasing as the territory gains access to its adjacent resources. These stakes will continue to increase with further development of the sector. The way in which the fishery develops will affect how much the sector will benefit Nunavut's economy versus the economies of southern jurisdictions. It will also determine how these benefits are distributed amongst Nunavummiut. The stakes are high, and the ability to re-distribute benefits in the future may be constrained by costs of capital investments. Ensuing that the decision-making process that directs this development is transparent and accountable to the appropriate constituency is crucial.

Decision-making strategies are changing. Prior to OA quota, allocations were made directly to individual entities. Transparency and accountability was only as good as the governance and organisational culture of these agencies allowed.

With the allocation of OA quota to a coalition of organisations making up the BFC, there has been an increase in the level of debate related to sector development. Decisions are becoming more transparent and board members are more widely accountable for the decisions they are being called on to make.

Nonetheless, the BFC may not represent the entire constituency that holds a legitimate interest in Nunavut's fisheries resources. As fishing pushes further north, additional communities may argue for a share based on adjacency. Issues of gender equity in the decision-making process may also not be adequately addressed in the current model.

Public debate is beginning to emerge based on the recognition of public interest in the fishery. Yet the key industry players such as the BFC are not publicly accountable and the business assumptions and data they use to base their decisions on are not publicly available. The result may lead to greater discord and misunderstanding than might be the case if the decision-making process were more open. Consideration should be given to the organisational mandate and make-up of the BFC as a major quota-holding entity. The model has represented good progress from previous situations but may be improved further.

Recommendation:

5. Consideration should be given to requiring recipients of Nunavut quota to share enough information about their activities to allow an assessment of the net economic return to Nunavut arising or reasonably expected to arise from the quota. The results of this assessment should be made available for public consideration.
6. A review of the membership, ownership, structure and level of public accountability of the Baffin Fisheries Coalition should be carried out in order to strengthen the organisational effectiveness of Nunavut's fisheries development 'champion.'

Strategy Area: Engaging DFO

DFO has a tremendous opportunity to make a significant difference in Nunavut's economy by actively facilitating the strengthening of this territory's foundation for fisheries activities through infrastructure, mentoring, supportive science, fishery officers training, and in allocating the licenses and allocation needed to drive the economics of the fishery. Unlike other regions, in Nunavut major development initiatives could take place without having to displace existing fishermen. Yet, at the moment, DFO has no capacity development programs in place in Nunavut.

There is sufficient common ground between Nunavut's fisheries agenda and DFO's policy direction that areas of difference should be able to be overcome. Mutual concern over conservation and the need for understanding of multi-species ecological relations is one such area of overlap. Concern for industry stability is another.

DFO Atlantic Fisheries Policy Framework

... "In the North, and particularly in Nunavut, communities are looking to the fisheries resources as a focus for economic development...a fisheries development strategy for the North is required to ensure priority is also given to science and management of existing and emerging fisheries in those regions."

"In AFPR Phase II, ...the department will assist in supporting economic development in coastal communities. Specific actions may include:

- working jointly with Aboriginal organisations and communities, other resource users, processor groups and local, provincial and territorial governments to help develop and implement an approach to the management and development of fisheries for Nunavut and northern areas."

Yet Nunavut communities seem to have fallen off the DFO radar. DFO has excluded Nunavummiut from programs designed to support Aboriginal capacity in the fisheries, such as the AFS, ARROM, and At-Sea Mentoring programs noted earlier. The federal government is making significant and important investments in climate change research in the Arctic. Similar investments in Arctic fisheries, which could assist Arctic peoples in important ways, are also and equally urgently needed. Numerous programs have been introduced to support building Aboriginal capacity in southern fisheries. A strategy to productively engage DFO is needed in order to mobilize the policy, funding power, and knowledge base of this key department.

Recommendation:

7. Begin a process of DFO re-engagement by involving the department in strategy consultations and by separating on-going allocation negotiations from discussions related to areas of common interest.
8. Work to create a higher political profile for Nunavut within DFO by advocating to bring Nunavut's fisheries files within one centralized office of the department—not spread between various regional and central offices.

Strategy Area: Management For Inshore Development—Seeking Synergies

There appears to be a lack of entrepreneurs willing and able to invest and undertake risks in many communities in Nunavut. So who will provide the organising and coordinating effort needed to carry out inshore fisheries activities after the 'pilot' phases are completed? Will individuals emerge? Where are the co-ops? Will HTOs take over? Or will there be an on-going dependency on out-of-territory managers?

The challenges presented by the inshore entrepreneurial vacuum may provide a strong argument for focusing short and medium term efforts on developing larger scale enterprises—offshore vessels, larger capacity processing plants—in preference to smaller-scale enterprises—clams, scallops, etc. Preference might be given to supporting larger-scale developments in communities that also hold potential for additional inshore developments—using the Pangnirtung plant model where the plant not only provides jobs processing offshore turbot, but also facilitates the winter turbot fishery by management quality control, marketing, and supply inventories.

Recommendation:

9. Management capacity from local processing plants could provide the on-going entrepreneurial and managerial guidance needed for the inshore fishery. Continue to support emerging fisheries on a pilot basis in order to determine their 'technical' viability. Include this information when assessing the potential returns of building new processing plants—looking for potential synergies in terms of shared management capacity.

Strategy Area: Coordination of Marketing

Recent efforts have been made to build a collective 'Nunavut Brand' for the territory's fisheries products. This effort is based on Nunavut's 'crisp and clean' environment and reputation. This coordination effort recognises that there is no point in Nunavut plants—which hold very small shares in both Nunavut and southern markets—competing against themselves. Rather, synergies and cooperative strategies should continue to be sought out and developed.

Recommendation:

10. Expand efforts to coordinate the creation and promotion of a 'crisp and clean' Nunavut brand targeted at markets both within Nunavut as well as in strategic high-value export markets. This brand should be available both to the existing Nunavut Development Corporation (NDC) plants, as well as to independent producers who are able to meet the brand standards.

3.3 REVENUE GENERATION AND FUNDING

Strategy Area: Using Quota Royalty Revenues To Achieve Development Objectives

Recommendation:

11. Before financial commitments are made based on OA turbot quota, each of the different ways quota can be used to generate benefits for Nunavummiut should be carefully analysed. The analysis should consider sensitivity to risks, distribution of benefits, labour market development, and other factors. Development pathways that will lead to both inshore and offshore activity should also be considered.
12. Efforts to develop a viable business plan that encompasses both offshore harvesting with inshore harvesting and processing—perhaps under several distinct enterprises—should be undertaken. This process will help to map out a development pathway to achieve medium and long-term goals.

Strategy Area: Gaining Access To Federal Aboriginal Fisheries Development Programs

Recommendation:

13. DFO should include Nunavut Inuit in its programs designed to support Aboriginal fisheries development and fisheries management capacity-building.

Strategy Area: Generating Funds For Arctic Fisheries Development

Recommendation:

14. Keep quota together as much as possible. This will allow the revenue-generating aspect of quota (selling it to generate royalties) to be applied toward strategic development priorities.
15. Prepare a concept paper outlining a new 'arctic fisheries' model that reflects the Inuit interest and the 'public good' value of arctic fisheries. This model would establish a resource 'rent' payment from NSA, Zone I and Zone II fisheries that reflects the 'public' and 'Inuit' interest in the fisheries resource, under the land claims agreements. These 'resource access' fees would flow to some new, publicly accountable entity tasked to achieve science and development objectives.

Background to the issues

Major investments are required to support the science, training, infrastructure, business development, and harvest capacity activities that are connected with the achievement of Nunavut's fisheries development goals. Sources of funding and strategies to generate revenues to support these activities need to be developed.

Current progress

The allocation of the entire OA quota, along with some shrimp quota, to the BFC has provided this coalition with a significant revenue stream. Some of this has been used to support the organisational capacity of the BFC, enabling it to play an important advocacy and planning role. Some has been used to support various small-scale in-shore development projects, while another portion helps to supply fish to the Pangnirtung plant. A major portion of the royalty from this quota assignment is being saved with the intent to leverage the acquisition of offshore harvesting capacity.

The Nunavut Economic Forum is continuing its efforts to lobby the federal government to assist economic development in Nunavut through the establishment of an Economic Development Agreement.

Various proposal-driven funding sources are available. The GN, for example, has established the Fisheries Development and Diversification Program with an annual funding envelop of \$350,000 to support fisheries development. DIAND also has a range of funding sources available that might be applied toward fisheries development programs. The recent funding of laboratory testing for Qikiqtarjuaq clams is one example. Considerable organisational capacity is needed in order to prepare proposals to access these funding sources—through initiatives such as the BFC this capacity is developing.

Challenges

Federal funding

Federal policy trends are out of sync with Nunavut's current context and development needs. While the DFO provided massive funding support for fisheries development in other regions during the 1970s and 1980s, current policy is geared toward a mature industry sector. The creation of Nunavut itself was undertaken during a period of fiscal restraint and government down-sizing in jurisdictions across Canada. The Nunavut Government arises from this tight fiscal environment. As a result, the new territorial government has few resources of its own to apply toward developmental financing. The GN's contributions to the NDC companies, to the fish freight subsidy, and to community-based projects through its Fisheries Development and Diversification Program are significant and important. Yet these territorial funds are wholly inadequate to get the job done on their own. Canada has also not yet arrived at a vision of the North that would support investing in fundamental infrastructure, such as it has done in other regions. Harbour facilities and marine services centres have typically been initiated through federal funds—but not yet in Nunavut.

NLCA

Instead of working to support Nunavut development, the federal approach to the NLCA seems to be to use this agreement to exclude Inuit from access to funding that is available to other Aboriginal groups to gain access to fisheries in the Atlantic region. While DFO has spent hundreds of millions of dollars supporting fisheries development amongst southern First Nations through the AFS, AAROM, and Aboriginal Fisheries Mentoring and Training programs, no similar support has been made available in Nunavut, either through parallel federal programs or under the NLCA itself.

Generating profit for development

One approach to financing fisheries development might be to undertake those activities that can generate profits from existing fisheries activities and then streaming these profits back into priority development areas. This approach will, however, constrain the options available for fisheries engagement in medium term. For example, processing offshore turbot may maximize the value of this resource to the Nunavut economy, and distribute the benefits in the most equitable and gender-balanced way. However, the economics of Arctic fish processing are such that the proceeds of plant sales that do not leak out of the Nunavut economy are entirely paid out to individuals in wages, salaries, fish purchases and other dispersed payments. No profits are accumulated that might be applied to other fisheries development activities. Selling quota, on the other hand, provides much less return to the Nunavut economy, but does keep the funds together in a form that can be applied to long-term development. Is this the price to pay for lack of federal support for fisheries development?

Strategic issues

How should royalty revenues raised from sale of quota be allocated? How can they best be used?

- In the past, quota was allocated to individual HTOs and to a very small number of individuals through private businesses. Some of the royalty revenue raised from this quota was used to support the winter turbot fishery in Pangnirtung by maintaining the viability of the Pangnirtung Fisheries plant. Some has supported HTO general operations.
- Allocation of a major quota to the BFC has provided the membership of this coalition with significant revenues to assign to their organisational activities and development priorities. The BFC is not, however, a public entity, so the public has little influence over its decisions.
- Qikiqtaaluk Corporation has also earned royalties from its large allocation of shrimp quota associated with its 1.5 licenses. The corporation has not yet applied these revenues to fisheries development activities. At between \$1 and \$1.5 million per year, however, the corporation could have significant resources to apply to fisheries development, should they so choose.
- If offshore royalty revenues were assigned to priorities identified by all Inuit—perhaps reflecting the land-claim intent that Inuit gain access to their adjacent resources—would the BFC-identified priorities stand? Some alternative uses might include building and supporting additional processing plants (although Qikiqtaaluk Corporation has said it plans to undertake this development¹).
- Should Nunavut's fishery resource generate revenues to be used in a way that benefits all Nunavummiut, based on criteria such as adjacency and so on? Or is it best to maintain the royalty stream in the hands of those who are most likely to use this revenue to further develop fishery sector opportunities? Who might these interests be? Should they be accountable for achieving certain results from the revenue streams they are given?
- Might Nunavut have better development opportunities than fisheries in which to invest offshore royalty revenues? The opportunities available in the fishery seem convincing—current earnings from royalties are only one-third to one-quarter of what could enter Nunavut's economy from a well-developed fisheries sector. Still, it is worth considering the alternative ways that this royalty stream might be applied.

Alternatives For The Use Of Quota Royalties

Royalty income derived from Nunavut's quota allocations provides an important source of revenue that can be used in various ways. The choice of how these can best be applied rests with the organisations and people of Nunavut. The NWMB makes quota allocation decisions

¹ see the Qikiqtaaluk Corporation web page.

and, thereby plays a very influential role in the determining the developmental possibilities arising from this revenue stream.

Four scenarios have been developed to illustrate some of the alternative strategies that are available for the use of royalty income derived from Nunavut-held quota. These include:

- Divert Royalties For Other Purposes
- Use Royalties To Fund Inshore Development
- Use Royalties To Fund Offshore Development
- Utilise A Combination Of These Three Approaches

Approach One: Divert Royalties For Purposes Other Than Fisheries

To a large degree, the 'emergent strategy' that has been adopted in Nunavut up until three years ago has been to divert quota royalties to various purposes not necessarily related to fisheries development. This strategy applied both to the allocation of small blocks of quota to individual companies and HTOs, along with a large block of quota (through permanent licenses) to the Qikiqtaaluk Corporation. The royalty revenues generated by this quota allocation have generally been used for purposes unrelated to fisheries development.

Within this scenario, there are a number of alternative ways that royalty revenues can be allocated and used. One option is for quota to be provided to individuals through private-sector businesses. This might have the effect of promoting Inuit business by providing much needed business capital. The risk with this option is that once allocated, there may be little influence that can be placed on private-sector quota-holders to use this revenue to generate public benefits. Allocations of shrimp quota have been made to private-sector companies in Nunavut.

A second option is to allocate quota to HTOs which will use this to achieve social and economic development objectives in areas deemed to provide the highest returns. Prior to 0A turbot quota allocations, this was the most common strategy for royalty allocations, with several community HTOs and Qikiqtaaluk Corporation being the major beneficiaries.

Socio-economic benefits

Royalties earned by HTOs have generated some reported benefits. Much of these seem to be in the area of social development and organisational capacity. There has not been any requirement, however, to publicly report on the socio-economic benefits generated by these quota allocations. Socio-economic benefits from the allocation of quota royalty streams to individually-owned companies are not reported by these companies.

Risks

Some concerns have been raised that efforts to gain a fair share of Nunavut's adjacent resources require that Nunavut be seen as a 'legitimate' player in the fisheries. Discontent in the fishing industry about 'quota brokers'—seen as essentially another tax on the resource—is expressed. It is not known how serious this risk is, nor how vulnerable this form of quota allocation is to policy shift in DFO. Certainly there seems to be tremendous resistance to reduce the quota of Seafreez, a southern quota-broker holding 1,900 t of turbot in 0B.

Observations

Should this scenario continue to be adopted, the 'public good' aspect of Nunavut's quota should be recognized. Recipients of quota should be accountable to producing benefits that reflect this shared 'ownership' of the resource. They should be requested to report publicly on how they are using revenues to achieve socio-economic benefits for their constituencies.

In general, this scenario does not effectively promote the goal of capturing more than 10% of the value of fish allocated to Nunavut. It does nothing to help promote fisheries development either inshore or offshore and thus relegates Nunavut to a position of skimming a small percentage off the value of its marine fisheries resources.

This approach to the use of royalties can always be a fall-back strategy if other more 'developmental' efforts fail—so long as those efforts do not lead to reduction or loss of quotas.

Approach Two: Apply Royalties To Inshore Processing and Harvesting Capacity

There is interest in developing fishery jobs in the communities that are located adjacent to the resource. This has already been accomplished in Pangnirtung. Char plants in Cambridge Bay and Rankin Inlet are also in place. Opportunities to develop additional plants may be available, however these are constrained by economic factors. The potential to use quota royalties to support expanded plant capacity is a strategy that might be considered.

Royalty revenues might also be used to acquire inshore vessels to fish Nunavut stocks. This potential is contingent on appropriate infrastructure being developed to harbour and service such vessels. Should inshore vessels begin fishing Nunavut stocks, a local market for these fish will be needed.

One option to develop markets for fish harvested inshore could be to use a system of inshore vessels and offshore 'mother ships'. The inshore vessels would catch the fish and transport them to the mother ship for initial processing and packaging for market. This might be possible with either shrimp or turbot. The economics of this scenario have not been explored, but would likely entail on-going subsidy to compensate the offshore vessel's opportunity cost of waiting for the catch to arrive. Ownership of the 'mother ship' would integrate it into the entire venture, allowing the business case to be assessed on the overall merits of this option. The second option here is to develop fish plants to receive the catch from these inshore vessels. A third option might be to install freezer capacity/containers where fish could be collected and shipped south on sea-lift back-haul voyages.

Socio-economic cost and benefits

The Pangnirtung example includes a number of opportunity costs and creates a number of socio-economic benefits. Allocating royalty revenues to acquire fish for the plant leads to some \$1.3 million in wages and income flowing into the community. Increased eligibility for EI and fishing EI benefits² is another benefit of supporting the viability of this plant.

² Under HRDC policy, fishers are the only self-employed workers who can receive EI benefits. These benefits are based on earnings within a fishing season, not on the number of hours and weeks worked. For example, a char fisherman who earns \$5,000 over the summer season could be eligible for a weekly benefit of nearly \$200 for a period of 26 weeks—effectively doubling their income by adding another \$5,000 of EI benefit.

Processing plants potentially provide a scale of operation that can begin to support professional managerial and entrepreneurial expertise. This expertise might be used to support various inshore fisheries activities as well, in communities where these opportunities are available.

Risks

Harnessing the proceeds of Nunavut quota to an active program of inshore fishery development should prevent any perception that the territory is not seriously engaged in the fishery. However, depending on the limited number of vessels owned by southern Canadian companies puts Nunavut in a poor bargaining position when negotiating royalty arrangements. DFO is not currently supportive of using foreign vessels in order to support Nunavut development objectives as this may have a negative impact on southern corporate development objectives. This policy means that southern vessel companies gain a near monopoly position when negotiating how much they are willing to pay for Nunavut quota. Limited competition in the quota marketplace within Canada means that Nunavut could receive less than a 'reasonable' price for its quota.

Observations

Developing the inshore fishery as much as possible seems to be the ultimate vision for Nunavut fisheries. However, various subsidies seem to be needed on an on-going basis to support fish plants. Current experience suggests that these subsidies have a strong positive socio-economic return—three to four dollars in wages and income for every one dollar in operating subsidy, for example. Nonetheless, available subsidy funds within the Nunavut Government are limited. Using royalty revenues to help “tip the balance” could help. Once plants are built, the commitment will be long-term. If these plants depend on royalty revenue, then the underlying quota that supplies this revenue is effectively tied up in the plants.

Another challenge in applying royalty revenues to maintain processing plant viability would be a political one. Communities that do not receive the benefit of a plant in their area should not be expected to be enthusiastic about having 'their share' of these revenues diverted to some other community. Would there be enough benefit left after plant subsidies to provide equitable benefits to other communities? The option of using royalty revenues to support plants is worthy of further, more detailed analysis.

Applying royalty revenues to build infrastructure is problematic. Harbour facilities in Nunavut are clearly a public good and—in all other jurisdictions in Canada—have been built through federal investments. In Nunavut such facilities would have multiple uses, including public access to the sea; support for cruise ship tourism; sealift re-supply; and support for commercial fisheries. It is not reasonable to expect Nunavut's developing fishing sector to carry the costs of building this public infrastructure using the limited revenues obtained from adjacent resources. This is clearly a federal area of responsibility.

Finally, developing inshore fisheries may lead to political challenges. The benefits arising from a processing plant are not divisible amongst communities. Someone gets a plant and someone else does not. If only one or two plants are envisioned, who is going to make the call? On what basis? This problem may get even stickier if the management capacity available at a

Economic Value, Socio-economic Value, and Profitability —“Whose Bottom Line?”

‘Profitability’ relates to the ability of an enterprise to generate revenues that are greater than all the fixed and variable costs involved in earning those revenues. Profitability is typically measured around a small part of the economic activity involved in getting a product to market. It is greatly influenced by the ‘business climate.’

The ‘economic value’ of an enterprise may be very different from the ‘profitability’ of that enterprise. ‘Economic value’ includes all the flows of value—measured in terms of dollars. Thus some ‘costs’ to an enterprise—wages paid to local workers, payments to purchase fish from local fishermen, airfreight paid to local air charter companies may show up as positive contributions of economic value, even while they erode profitability of an enterprise.

‘Socio-economic value’ includes non-monetary values that the activities of an enterprise provides to a community. The availability of jobs may provide, in addition to income, a sense of pride or of hope that leads to positive social changes for example. Public decisions that affect ‘socio-economic value’ are often influenced through the political process. Subsidies for job creation are one example.

Private sector enterprises benefit from a range of public investments that they do not need to account for in determining profitability. These include public goods such as education and health care, monetary policy, trade policy, transportation infrastructure, and so on. All these contribute to the ‘business climate’. Thus, public policy can influence the business climate, thereby influencing whether a sector can support profitable businesses or not.

processing plant is used to leverage development of emerging fisheries. This contrasts with offshore fishing where the benefits—crew positions and profits—are easily divided amongst many communities and/or shareholder groups. Even if on-shore processing development provides greater net economic benefits to Inuit than offshore vessel operation, Nunavut’s political system may not be up to the task of making the hard decisions about who gets to benefit.

Approach Three: Apply Royalty Revenue to Offshore Fishing Capacity

The BFC has already built up a significant vessel acquisition fund from the royalties it earns from its quota allocations. The coalition continues to develop a business case for such an endeavour and may consider options such as joint ventures to make this happen.

Socio-economic benefits

The BFC expects that owning an offshore vessel will generate higher net value to Nunavut than simply brokering quota. This additional income is expected to arise from profits generated by the enterprise, and from the increased Inuit involvement as crew on an Inuit-owned vessel. These expectations are based on an assumption that the endeavour will be successful in carrying out a viable business plan.

In addition to accessing a greater share of the economic activity involved in harvesting, vessel ownership is expected to place the BFC—or any other Nunavut interest owning a vessel—in a stronger position in terms of control over fisheries development. Currently, quota-holders must negotiate with Canadian vessel-owners for

royalties and crew positions since they do not have the capacity to fish their quota themselves. Due to DFO policy protecting Canadian vessel-owner interests, these negotiations are rather one-sided in favour of the vessel owners. Further, fishing OA successfully requires knowledge of the stocks to be built up through experience. Continuing to support the development of this expertise outside the territory places Nunavut in a position of dependency that could be exploited in the future. Vessel ownership would ensure that Nunavut interests gain the data related to stock location and successful fishing strategies that is needed for a viable fishing enterprise in arctic waters.

Risks

Offshore vessel ownership requires major investment which may, in turn, require major debt. The risks involved may be mitigated by adopting a joint-venture approach in which equity would be purchased over time.

To achieve increased benefits from crew shares is as much a labour force supply issue as it is a job availability issue. Significant numbers of individuals willing to gain the skills and certifications, and then willing to work on the vessels will be needed. There have been offshore vessel opportunities for Inuit for many years and the experience has been mixed—a major challenge has been to retain workers and to promote Inuit into higher level positions. The argument that having an Inuit-owned vessel will help to make the workplace environment move favourable for Inuit workers may carry some weight, but it needs to be demonstrated.

Observations

Unlike the processing option where business revenues are widely disbursed as wages and as income to fishermen, the distribution of proceeds from offshore fishing will be more concentrated. Offshore vessel crew can be expected to earn higher incomes than plant workers, and some of the net return should remain in the form of enterprise profits. This pool of profit can become available for further investment into fisheries development.

Offshore fishing may avoid some of the sticky political issues that dog onshore development. All communities and interest groups involved in the enterprise can share in the benefits through access to crew jobs and participation in the allocation of profits. Political issues may arise, though, in relation to gender inequity and, more generally, concerns over how benefits are distributed. Challenges may also arise if the enterprise does not succeed in recruiting anticipated numbers of Inuit crew, or in achieving profit expectations.

Approach Four: Balancing All Three Uses Of Royalty Revenues To Achieve Multiple Objectives

While the three approaches have been presented as 'stand-alone' alternatives, the reality is that a combination of these approaches could be carried out. An appropriate strategy is needed to use royalty revenues to support the achievement of multiple fisheries development goals—offshore harvesting, onshore processing, and inshore harvesting. This strategy needs to build upon careful analysis of the relative economic benefits that can be derived from each alternative, along with consideration of the development pathway that can lead to the desired end-point.

The ability to strategically plan for the best use—in terms of net benefit to Nunavut—of royalties generated from quota during the early phase of Nunavut's fisheries development implies some level of 'public' discussion about how these revenues are allocated. This influence will be lost if quota is broken into pieces and distributed to private interests that are not accountable to the public. Even if quota is kept together in a block, influence may also be lost if this block of quota is allocated to one private entity that is not accountable to the full constituency that has a legitimate interest in the direction of fisheries development.

Keep quota
together to
support strategic
development

Strategy Areas Related To Revenue Generation And Funding

Strategy Area: Using Quota Royalty Revenues To Achieve Development Objectives

The status quo situation allows for some influence over how quota revenues are used during the initial allocation decisions by the NWMB. Some accountability has been required and some quota has been reallocated when the foreseen benefits were not obtained. Generally, though, once quota has been allocated the quota holders are not held accountable for how it is used.

The quota from OA, however, has not yet been entirely committed on a long-term basis, though this commitment is imminent, and will be required if the BFC's vessel acquisition plan is to be supported. There is a window of opportunity now to clearly consider how this revenue can best be used. The BFC has prepared a case for not simply using quota to generate a revenue stream. However, the assessment of relative benefits from the various alternatives has not really been presented in an analytical way. It is time to do the analysis.

Strategic Recommendation:

11. Before financial commitments are made based on OA turbot quota, each of the different ways quota can be used to generate benefits for Nunavummiut should be carefully analysed. The analysis should consider sensitivity to risks, distribution of benefits, labour market development, and other factors.
12. Efforts to develop a viable business plan that encompasses both offshore harvesting with inshore harvesting and processing—perhaps under several distinct enterprises—should be undertaken. This process will help to map out a development pathway to achieve medium and long-term goals.

Strategy Area: Gaining Access To Federal Aboriginal Fisheries Development Programs

As previously noted in Section 3.2, Fisheries and Oceans Canada has initiated a range of programs to assist Aboriginal peoples in gaining access to the benefits of adjacent fisheries. The AFS, ARROM, and At-Sea Mentoring programs could also provide significant benefits to Nunavummiut. Unfortunately, DFO has chosen to exclude Nunavut from these benefits on the basis that Inuit of this territory have a land claims agreement in place.

However, the NLCA does not provide any benefits similar to those provided by these DFO programs. The NLCA specifically states in Section 2.7.3 (b) that the Agreement shall not “affect the ability of Inuit to participate in and benefit from government programs for Inuit or aboriginal people generally as the case may be; benefits received under such programs shall be determined by general criteria for such programs established from time to time.”

Strategic Recommendation:

13. DFO should include Nunavut Inuit in its programs designed to support Aboriginal fisheries development and fisheries management capacity-building.

Strategy Area: Generating Funds For Arctic Fisheries Development

Development of Nunavut's fisheries will require some large-scale investments in science, inshore and offshore vessels, marine infrastructure, cold storage, and processing plants. These investments will need to be coordinated to ensure, for example, that processing capacity is available to support inshore harvesting activities, and that offshore fish will be able to be landed to maintain the stability and scale-of-operations needed to support onshore processing.

Achieving the flexibility to undertake coordinated planning might be achieved by keeping major blocks of quota together, such as is the current situation with OA turbot and with the Qikiqtaaluk Corporation shrimp licenses. Maintaining a significant funding source for development investments will require an on-going revenue stream that can be allocated according to strategic development priorities.

An alternative strategy for funding science and development in a coordinated and strategic way might be to generate a stream of revenue from all offshore fish harvesting activities. Inuit are recognised in the NLCA as having a special and collective interest in Nunavut's adjacent fisheries. Thus there seems to be a 'public interest' dimension to these stocks. The concept of resource 'rents'—payments made to the public for use of public resources—is typical in resource industries other than fisheries. Such a 'rent' could apply to all harvesting by offshore vessels taking place in the NSA, Zone I and Zone II. Establishment of a resource 'rent' would acknowledge the special 'public' interest Inuit have in arctic fisheries resources. Such a 'rent' could become payable by the quota-holder to an organisation that is accountable to the Inuit constituency. It could then be available to undertake much of the public investment needed for fisheries development in the arctic.

Recognising the Inuit public interest in Arctic fish stocks through 'rent' payments

Strategic Recommendation:

- I 4. Keep quota together as much as possible. This will allow the revenue-generating aspect of quota (selling it to generate royalties) to be applied toward strategic development priorities.

- I 5. Prepare a concept paper outlining a new 'arctic fisheries' model that reflects the Inuit interest and the 'public good' value of arctic fisheries. This model would establish a resource 'rent' payment from NSA, Zone I and Zone II fisheries that reflects the 'public' and 'Inuit' interest in the fisheries resource, under the land claims agreements. These 'resource access' fees would flow to some new, publicly accountable entity tasked to achieve science and development objectives.

3.4 LICENSES AND QUOTA ('ACCESS AND ALLOCATION')

Strategy Area: Continue Working Toward A Fair Share Of Allocation

Recommendation:

16. Current efforts to gain an 80 to 90% share of quota in each of Nunavut's adjacent fisheries should be continued on a priority and urgent basis. This is the engine to drive fisheries development and is, therefore, the foundation to building the future.
17. An advocacy and communications strategy is needed to support and focus these efforts. IPAC has made the case, Senators and Members of Parliament have reported in favour of Nunavut. This support needs to be crystallized into action.

Strategy Area: Refining Criteria For Allocating New Quota And For Future Withdrawal Of Quota

Recommendation:

18. Maintain the current allocation of OA offshore quota in a block in order to generate the scale and flexibility needed to support strategic fisheries development.
19. The analyses developed in Recommendation 11 should be used to refine and 'illustrate' the criteria arising from existing allocation principles related to economic dependence and 'direct benefits'. In addition, the allocation criteria could provide greater detail in how the various criteria are weighted and balanced over time.
20. Processes for withdrawal of quota should be developed in advance of the situations that might make such withdrawal necessary. These need to be prepared both for Nunavut quota managed by NWMB, as well as for DFO-managed quota in adjacent waters.

Background to the issues

This component of the strategy needs to address the critical issue of who gets to fish and what share of the limited catch each participant gets. Issues of access and allocation can be highly challenging for decision-makers and fisheries-dependent communities. These issues directly impact the economic interests of individuals, communities and whole regions. In other regions of Canada, they have led to public protest, political battles, vigilante justice, occasional violent confrontations and major mobilization of tax dollars and the tools of policy development.

In the char fishery, the winter turbot fishery and the emerging clam fishery, access and allocation issues are mediated directly by the HTOs and the NWMB. Demand is limited by the availability of individuals interested in doing the hard work involved in commercial fishing.

In the present state of development of the offshore turbot and shrimp fisheries, the access and allocation issue is dramatically different. Here the major issues have revolved around the relative allocation of shrimp and turbot quota to 'Nunavut' in relation to allocations to interests from outside the territory. NTI, the GN, various parliamentary and senate committees, and the Independent Panel On Access have all advocated for a fairer distribution in recognition of Nunavut adjacency and dependence.

As Nunavut works to develop new fisheries and to gain a greater share of the existing adjacent stocks the stakes in who get access to these fisheries and how much quota is allocated to

different groups will get higher. The issue of access and allocation of Nunavut quota within Nunavut is slowly beginning to heat up.³

Because there are currently no Nunavut-based vessel owners operating in these fisheries, the issue is essentially one of allocation of revenues—who gets to be a ‘quota-broker’ and how much revenue will they be given access to. Clearly, the potential interest in gaining access to a revenue stream without having to actually fish, is very high.

Access, Allocation and the NLCA

The current situation whereby Nunavut holds only a third of the available harvest allocation from its adjacent fisheries is untenable. In Section 15.3.7 of the Nunavut Land Claims Agreement the federal government agreed to recognize the principles of adjacency and economic dependence of Nunavut communities on marine resources.

In spite of the NLCA, DFO has failed to redress Nunavut’s situation. A litany of parliamentary, senate, and independent reports have called on the department to fix the situation. For example, Recommendation 6 of the March 2002 IPAC Report called for no additional access being granted to non-Nunavut interests in Nunavut’s adjacent waters until the territory achieved access to a major share of its adjacent fishery resources.

All to no avail. Economic interests of private companies far removed from the region have prevailed over the rights of Nunavummiut. Nunavut holds harvest rights to only 35% of its adjacent fisheries.

The consequence is that a generation of young Inuit are growing into an economy that will be less able to support them than the land claim negotiated by their grandparents and by the federal government promised.

What is at stake? The royalty value of the quota that DFO is withholding from the people of the Baffin region is worth some \$6 million per year. This would be sufficient to support processing plants in several communities, creating plant jobs and opening up a market for locally harvested char and marine species. This quota revenue would be the engine for carrying out both inshore and offshore development activities at the same time. This is a tremendous loss to the territory.

The issue of allocation of quota revenues is critical to Nunavut’s fisheries development. Quota is the fuel that will propel fisheries development through strategic investment of royalty revenues. However, how this quota is allocated will determine whether it is used to expand Nunavut’s ‘economic pie’ or simply provide a stable revenue stream to whoever is lucky enough to gain access to it.

Current progress

Progress is being made in two areas related to access and allocation. First, Nunavut is gaining a greater share of its adjacent resources. Recent allocation of all 0A turbot quota to the territory represents the greatest advance. Ongoing efforts to expand Nunavut fisheries are being made through:

- Advocating for a fair share of adjacent fisheries⁴
- Developing experimental and emerging fisheries to commercial stage e.g. 0A turbot and Qikiqtarjuaq clams.

However, Nunavut continues to lag far behind other jurisdictions in terms of its share of adjacent resources. While most areas hold 80 to 90% of their adjacent TACs, Nunavut holds only 58% of its turbot (only 27.3% in 0B) and 26% of its shrimp (only 19% of Northern Pink Shrimp). In total, Nunavut has only 35% of its adjacent resources. These resources yield royalty revenues in the order of \$4 million per

³ See Nunatsiaq News July 4, 2003 issue on one Iqaluit woman’s efforts to gain enough quota to be able to leverage a major vessel purchase. However, news articles related to relative allocation between the south and Nunavut have been far more frequent than those related to distribution within the territory.

⁴ Building on the NLCA and on recommendations of the IPAC report, the Nunavut Report, Senate reports, and so on.

year. It is reasonable to expect that the Nunavut economy could capture many times this value through harvesting and processing its allocation using Nunavut enterprises.⁵

Quota Systems – Alternative Approaches

ITQ and Quota Auctions

Individual Transferable Quota (ITQ) is the most complete privatization of a fishery resource. Under this system, adopted in countries such as Iceland and New Zealand, quota is a property right that can be traded and sold at will by the owner. While ITQ has typically been given away on the basis of historical fishing activities, some have suggested that in moving from publicly-owned quota to private ownership, the quota should actually be auctioned. The proceeds would represent an annual payment to the public in recognition of the 'public' ownership of the resource itself.

Individually held quota

This system allows individuals to hold quota individually—such as through Enterprise Allocations, used in Canada—without actually holding any underlying property right. Technically, the Minister can withdraw such quota. However, the practice is that any such withdrawal is only made with 'cause' or in exchange for compensation.

Community Development Quota

In Alaska a category of quota—Community Development Quota or CDQ—has been developed specifically to promote community access to fisheries development opportunities.

Regionally-held Quota

In some regions, quota is held in a block by regional organisations. Decisions about how quota is used and how the benefits of this use are distributed are made by these organisations through their normal channels of accountability and transparency to the regional constituency.

Progress is also being made in the allocation of Nunavut quota within the territory. The emergence of the BFC as a major quota-holder has had two effects. First, this industry group has added another voice calling for a more equitable share of adjacent stocks to be allocated to Nunavut. Increasing the political support, especially from industry, advocating for Nunavut interests represents important progress. Secondly, the BFC has brought a higher profile to Nunavut fisheries, thereby increasing public awareness of the sector. While this may lead to challenges, it does achieve the effect of bringing some important issues onto the public agenda.

Challenges

Mediating the issues around access to quota for the purpose of earning royalty payments has been carried out by the NWMB in a fairly successful manner, through their "Allocation of Commercial

Marine Fisheries Quotas" policy. Key elements of this policy address ownership (priority to HTO/RWO companies) and socio-economic benefits (priority to proposals that create employment and other economic benefits to Inuit and others).

To address the challenge of a developing fishery, the NWMB emerging and exploratory fisheries policy addresses the challenge of allowing entry while not foreclosing future entry possibilities. The policy indicates that access to exploratory/emerging fisheries should not be exclusive to the first applicant. Later-entering applicants with stronger adjacency, ownership priority to HTO/RWO, and socio-economic benefits proposals may gain priority for quota allocation even if the original participant has longer history. A specific element of the socio-economic criteria is that "proponents for exploratory fisheries shall be encouraged to move towards onshore processing and local employment." Although the application of this policy has

⁵ This added-value would be in wages, crew shares, processing plant sales, and vessel profits. Much of the 'landed-value' and 'total sales value' can be reasonably expected not to enter Nunavut's economy. Rather, it will 'leak' out of the economy through brokerage fees, vessel financing and maintenance, non-Nunavut crew, fuel and supplies purchases, insurance costs and so on. Leakage associated with offshore harvesting will be greater than that of on-shore processing.

not yet been extensively tested, by indicating these priorities, those groups interested in gaining Nunavut quota know in advance they are best advised to develop their operations to meet these priorities.

In spite of these criteria, its not clear how enterprise viability decisions will be made. The first step in Nunavut involvement has typically been to gain quota and then broker this quota in return for royalty revenues and crew positions. Quota revenues may be used for purposes ranging from corporate profit, to HTO priorities, to fisheries development activities. Current policy does not directly address criteria for quota assignment based on how royalties are used.

The second step in development entails using quota to increase direct involvement in fisheries harvest and/or processing activities. Cumberland Sound Fisheries is involved in this area by using quota to land fish at the Pangnirtung Fisheries plant. The use of quota to purchase or joint-venture with vessel companies to directly fish has not yet been successfully demonstrated. However, the BFC has gained the entire OA quota on the strength of a commitment to achieve this result.

There do not seem to have been any proposals yet to apply quota revenues to building and supporting the operational costs of new or existing processing plants.⁶ Nor has there been any public discussion of using royalty revenues to build community-based harbour infrastructure needed to support inshore fisheries development.

The NWMB criteria do not directly address the procedure for removing quota when stocks decline or shift out of a region. While the existing criteria will assist in this decision-making, the issue of how much quota can be removed without making a business unviable needs to be considered. This could influence the way in which quota-allocation decisions are made during fishery expansion.

'Quota-brokering' whereby groups that hold quota do not fish it themselves but rather sell the rights to fish to vessel-owners is becoming a sensitive issue for the DFO. Particularly in the shrimp industry where prices have dropped and margins are getting tighter, vessel operators are asking why quota should be given to interests who are not active fishermen—why not provide quota directly to those who are going to fish it? This would help to improve the stability of the fishing sector. However, in Nunavut quota is generally—though not entirely—assigned to communities through their HTOs, presumably to be used to achieve community development benefits. This might be seen as a legitimate balance to the industry benefits sought by established industry players.

Strategic Issues

- Flexibility is needed. Nunavut fisheries are in a developmental mode — may start with off-shore and royalty-based fishing, but the target seems to be an owner-operated inshore fishery once skills, infrastructure, vessels, and processing plants are in place. Re-allocation of quota is difficult, however, once enterprises become dependent on them.

⁶ Although Qikiqtaaluk Corporation has suggested on its web site that it is committed to building processing plants, presumably based on royalty revenue generated from its shrimp quota.

- Institutional structures need to be seen to support common goals and to have the capacity to broker disputes. Transparency in policy, knowledge, and decision-making is needed.
- Policy needs to be developed on how quota will be withdrawn from a fishery that experiences a decline in stocks.
- Accountability for producing benefits beyond the enterprise that holds the quota needs to be determined. Producing such benefits is part of the allocation criteria. However, reporting needs to be in place and consequences of missing the conditions under which quota was assigned need to be understood.

Strategy Areas Related To Licenses and Quota

Strategy Area: Strategy To Continue Working Toward A Fair Share

Gaining access to a fair share of Nunavut's adjacent marine fisheries should continue to be a major priority. During the early period of development, this quota represents a revenue stream that can serve as the engine driving development. In the medium-term and longer-term, Nunavut needs adequate quota in all areas of its adjacent fisheries in order to develop viable business plans. These may involve fishing in both the more northern and southern areas of adjacent waters, as well as potentially using Nunavut quota to swap for southern quota in order to maintain year-round fishing activities.

Recommendation:

16. Current efforts to gain an 80 to 90% share of quota in each of Nunavut's adjacent fisheries should be continued on a priority and urgent basis. This is the engine to drive fisheries development and is, therefore, the foundation to building the future.
17. An advocacy and communications strategy is needed to support and focus these efforts. IPAC has made the case, Senators and Members of Parliament have reported in favour of Nunavut. This support needs to be crystallized into action.

Strategy Area: Refining Criteria For Allocating New Quota And For Future Withdrawal Of Quota

Distribution of new quota needs to be based on clear commitments on how this quota will be used, and on subsequent transparency and accountability. Earlier recommendations on alternative strategies for the use of royalty revenues should assist in developing the priorities for quota use. This requirement for accountability simply reflects the nature of quota as a 'public good'.

Preparation also needs to be made for the potential future withdrawal of quota in the event that stocks decline. When shrimp or turbot TACs are reduced in Nunavut's adjacent waters, will DFO maintain historical shares, or will Nunavut interests have their shares reduced more slowly than other participants? Its not too early to begin negotiating the process.

The potential that quota allocation could be carried out on the basis of 'stage of development' might also be explored. The objective would be to enable current progress to be made without foreclosing future, higher value, fisheries development due to lack of available quota.

Recommendation:

18. Maintain the current allocation of OA offshore quota in a block in order to generate the scale and flexibility needed to support strategic fisheries development.
19. The analyses developed in Recommendation 11 should be used to refine and 'illustrate' the criteria arising from existing allocation principles related to economic dependence and 'direct benefits'. In addition, the allocation criteria could provide greater detail in how the various criteria are weighed and balanced.
20. Processes for withdrawal of quota should be developed in advance of the situations that might make such withdrawal necessary. These need to be prepared both for Nunavut quota managed by NWMB, as well as for DFO-managed quota in adjacent waters.

3.5 LABOUR MARKET DEVELOPMENT & TRAINING

Strategy Area: Improve Recruitment By Understanding Inuit Demand For Fisheries Work

Recommendation:

21. Detailed analysis of Inuit fisheries workers' experience and expectations should be carried out for each of Nunavut's fisheries sectors. This analysis should be factored into decisions on alternative fisheries development strategies. Where choices are available, efforts should be focused on creating the kinds of jobs Inuit prefer to hold. Matching demand with supply preferences should improve labour market success.

Strategy Area: Build Fisheries Labour Force Capacity Through Training

Recommendations:

22. Training programs need to be developed to address the most urgent labour supply issues. What are the skills gaps that are costing Nunavut the greatest lost opportunity? When assessing the cost of training versus the benefits to be derived, analysis needs consider if the resources—both financial and trainees' time—might yield greater benefits in other sectors.
23. Training programs should be designed to be effective:
 - Start by building the fundamentals: literacy, life-skills, and education;
 - Invest training in the right people;
 - Adopt best training practices for Inuit; and,
 - Take a career development orientation to training and recruitment.

Strategy Area: Understanding Workplace Dynamics To Improve Retention Of Workers

Recommendations:

24. Job retention strategies are needed for both the processing and offshore vessel sectors. These need to be based on a good understanding of the workplace qualities sought out by Inuit workers and the critical issues that contribute to, or detract from, job retention.

Background to the issues

Labour market development includes addressing the ability of plants and harvesting companies to find qualified people to carry out the work they provide. It also addresses the ability of the sector to create the kinds of work opportunities that Nunavummiut seek. A range of issues must be addressed. These include issues around recruitment, training, retention, workplace safety, job creation versus mechanization. Work–lifestyle compatibility is also addressed here—how does fisheries work fit into various dimensions of Inuit culture and into the annual round of wage and non-wage activities?

Recruitment is always a challenge in a small labour market. While employers may desire more highly skilled entrants, individuals need some assurance that jobs in their field will be available once they complete their education or training. Concerns have been raised in the past that positions on offshore vessels were unavailable to new entrants, since returning workers got priority. This in spite of the fact that some new entrants were thought to better fit the desired profile of vessel workers—those who might choose to pursue advancement in the fishery. If people are to be trained to take on higher-level positions, this training needs to lead to work at the end of the line.

Recruitment and retention of appropriately skilled people is another component of labour market development. Are people willing to remain in a job long enough to build the full range

of competencies required, to provide a reasonable return on the training investment, and to gain promotion to the next level of career promotion?

Fisheries provide opportunities for both men and women in traditional positions. Typically, men are involved in harvesting and women in processing jobs. The choices that are made in developing a fishery can influence the balance between these gender-biased jobs.

Current progress

A wide range of training activities have been provided over the years in the offshore fisheries sector. Courses have been provided through a partnership between Nunavut Arctic College and the Marine Institute, for example. A proposal for a major long-term off-shore fisheries training initiative has been developed by the BFC. The rationale for this program is to replace non-Nunavut fisheries observers and vessel crew with Nunavut workers.

Training in the processing plants has been carried out in a more hands-on manner, with managers showing how things are to be done 'on-the-job'. Training activities have been closely connected to fisheries development activities. Commercial divers training courses successfully led to certified divers now actively engaged in testing the feasibility of commercial clam diving in Qikiqtarjuaq.

With respect to understanding the gender issues in the fishery, the current research being carried out in Pangnirtung by Pauktutit should serve as a start to including gender in fisheries development planning.

Challenges

It is well known that the positioning of Inuit in fisheries sector jobs is less than the available opportunities would allow. However, it is also known that the factors leading to this situation are complex. Inadequate skills certification is one factor, and training can address this. However, other issues come into play. These are less well understood and the measures to mitigate them have not been well-developed. They may include preferences related to working in the community versus working on remote vessels, type of jobs preferred (e.g. manual work versus management work), culture and language of the work-place, economic earnings objectives, and so forth.

Training efforts need to be matched with recruitment strategies, to ensure that those who are being trained match the profile for the kind of work they are being trained for. Retention strategies are also needed to ensure that trained individuals who do take up positions remain in those positions.

Training efforts need to correspond to the potential return to Nunavut's economy that can be expected from filling positions with Nunavummiut. Some programs may be expected to add to the net economic return to Nunavut by capturing a greater share of wages generated. Others may facilitate the development of entirely new fisheries sectors by filling management or entrepreneurial positions that can simply not be adequately filled by the current labour force.

In Nunavut, as in other jurisdictions, gender-specific roles seem to be the norm. Men do most of the harvesting, while women make up a majority—but not all—of plant workers.

Strategic Issues

- To what extent should efforts be made to match the kinds of jobs created in Nunavut's fisheries to the kinds of work that Nunavummiut seek?
- Who should choose which individuals are eligible for what kinds of training? Should there be some kind of 'profile' matching, or evidence of previous initiative in the fisheries?
- Should Nunavut's fisheries development strategy specifically seek to create jobs for both men and women? E.g., balancing harvesting positions with processing positions?

Strategy Areas Related To The Labour Market

Strategy Area: Improve Recruitment By Understanding Inuit Demand For Fisheries Work

Nunavut's fisheries strategy should address not only the kinds of workers needed by the existing fisheries sector. It should also consider the kinds of jobs sought out by those who make up the labour force. Considering both labour 'supply' and job 'demand' will lead to a wholistic labour market approach to work in Nunavut's fisheries sector.

A labour market approach to fisheries development might mean that an assessment of Inuit job demand should be used to influence—to the extent that is viable—the kinds of jobs that fisheries development creates. This may influence the relative focus placed on inshore versus offshore development, on male-dominated positions versus female-dominated positions. It may also influence efforts to design workplaces that are attractive to Inuit workers—management styles, language use, workplace culture and so on.

Recommendation:

21. Detailed analysis of Inuit fisheries workers' experience and expectations should be carried out for each of Nunavut's fisheries sectors. This analysis should be factored into decisions on alternative fisheries development strategies. Where choices are available, efforts should be focused on creating the kinds of jobs Inuit prefer to hold. Matching demand with supply preferences should improve labour market success.

Strategy Area: Build Fisheries Labour Force Capacity Through Training

On the 'supply side' of the labour market, the focus should be on building a productive and experienced workforce capable of supplying productive and cost-effective labour to the fisheries sector. This will involve both training initiatives as well as, equally, retention initiatives.

As with other sectors in Nunavut, labour force development needs to begin with the fundamentals—literacy, life skills, and education. To fill positions in the short term, strong screening programs can be used to ensure that those who enter training streams already have these fundamentals in place.

Recommendation:

22. Training programs need to be developed to address the most urgent labour supply issues. What are the skills gaps that are costing Nunavut the greatest lost opportunity? When assessing the cost of training versus the benefits to be

derived, analysis needs consider if scarce resources—both financial and trainees' time—might yield greater benefits in other sectors.

23. Training programs should be designed to be effective:

- Start by building the fundamentals: literacy, life-skills, and education;
- Invest training in the right people;
- Adopt best training practices for Inuit; and,
- Take a career development orientation to training and recruitment.

Strategy Area: Understanding Workplace Dynamics To Improve Retention Of Workers

To date, only sparse and anecdotal understanding of Inuit participation in fisheries is available. Lack of organized data hinders informed decision-making.

Recommendation:

24. Job retention strategies are needed for both the processing and offshore vessel sectors. These need to be based on a good understanding of the workplace qualities sought out by Inuit workers and the critical issues that contribute to, or detract from, job retention.

3.6 INFRASTRUCTURE

Strategy Area: Identifying And Funding Fisheries Infrastructure Priorities

Recommendation:

25. The NFWG should prepare a scoping study to identify infrastructure projects that will provide the highest returns on capital investments under various fisheries development scenarios. These analyses should be used to leverage funds from DFO and DIAND to begin building infrastructure to support Nunavut fisheries.
26. The need for marine infrastructure in Nunavut is severe. The federal government must step up to make the needed investments—as it has in the rest of Canada. Existing federal resources such as those of DFO's Small Craft Harbours program should be applied to meeting these needs..

Strategy Area: Building Fisheries Into Community Capital Planning

Recommendation:

27. Ensure that future fisheries opportunities are considered when communities plan for their overall capital infrastructure requirements. Specifically, link fisheries infrastructure planning to infrastructure requirements for local marine access, for sealift re-supply and for cruise ship tourism planning.

Background to the issues

Infrastructure is critical to Nunavut's ability to play more than simply a royalty-gathering role in its fisheries. This includes basic processing plant and cold storage facilities. Inshore processing requires the ability to land fish from large off-shore vessels, so docking and harbour facilities are needed. Inshore harvesting requires safe docking and marine services to support inshore boats. Both marine and air transportation infrastructure is needed to get product to market. The availability of marine services centres and cold-storage warehouse and container facilities could provide the further potential to provide goods and services to the offshore fleet.

Government investment in fisheries and harbour infrastructure has played a major role in fisheries development in all regions of Canada—outside of Nunavut where no such investment has ever been made. Without such investment, the Atlantic fishery would be shadow of its current form—shore-based open boats landing small amounts of product in widely separated communities for low-value processing at small and inefficient plants.

For Nunavut, getting marine infrastructure in place is a key to releasing the potential of the inshore fishery and to capturing value from the offshore fisheries. Such infrastructure will also play a key role in improving the safety, and in facilitating further development of other important activities such as hunting, sea-lift re-supply, and tourism.

Current progress

Currently there are no harbours, ports, or marine facilities in Nunavut communities. Fish from offshore vessels are painstakingly unloaded over the side into small motor boats. This can only be done at high tide. The downtime incurred by these expensive factory-freezer vessels is ultimately integrated into the cost of sales from the plant.

Lack of docking facilities means that inshore vessels cannot be adequately harboured from the weather and tides experienced in the arctic.

A Small Craft Harbour Investment Strategy has been developed by the GN to address some of the really basic needs such as breakwater development and docking facilities. Discussions have been initiated with the federal government to begin funding these priority efforts.

Other major infrastructure needs—new processing plants, cold storage warehouses and container facilities for example, have not yet undergone feasibility or pre-feasibility assessment, although some of this assessment work is planned by the GN for the near future. Private efforts have been undertaken, through the BFC, in the area of planning for offshore vessel acquisition. Similar feasibility planning for inshore vessels has been done in some communities—not necessarily related to fisheries though.

Challenges

Nunavut seems to have been abandoned when it comes to federal investment in really fundamental economic infrastructure. This lack of attention is hard to comprehend in a country that has deep commitments to principles of federalism and regional equity. Is Nunavut part of the federal family or only a poor cousin?

Other regions of Canada benefit from massive, internalized transportation subsidies (e.g. rail and marine transport systems are critical components for many businesses and have been highly subsidised). In Nunavut, the approach is to 'externalize' transportation subsidies. Instead of providing airline subsidies to equalize transportation costs, businesses need to recover transportation costs through programs such as the Fish Freight Subsidy.

Inadequate municipal infrastructure is also a barrier to fisheries development. Processing plants require clean water and place a demand on waste water treatment facilities. They may also place demands on other aspects of municipal infrastructure related to ground transportation, international communications and broadband access, energy consumption and so on. One conclusion of a recent shrimp plant pre-feasibility analysis was that Nunavut's capital city would be unable to supply the needed fresh water required by such a plant without major investment in this basis infrastructure.

The 'local politics' dimension of infrastructure planning may provide a major challenge for decision-makers. Should infrastructure projects be used as a means to provide new economic opportunity to communities that lack other economic advantages, or should infrastructure be built where the chances of success are most certain? A careful balance needs to be created around this tension. Regardless of the eventual response to this challenge, communities that gain infrastructure should be expected to demonstrate some level of accountability for results.

Strategic Issues

- There is a critical need for 'convergence' of infrastructure in order to make the inshore sector work. Things need to happen in a coordinated way. The inshore harvesting sector needs a market for their products—this requires processing plants and cold storage facilities.
- To achieve an efficient scale of operation, these plants may require a supply of offshore fish to 'top-up' what can be provided from the inshore fishery. This implies the need for facilities capable of docking large factory vessels.

- To improve the economics of diverting off-shore vessels to offload their catch, marine services should be available. If the inshore harvest is vessel-based, then vessels and vessel support facilities are needed.
- Different regions and different communities will have differing opportunities. Therefore, planning is needed to assess these opportunities, and the appropriate infrastructure combinations needed to make things happen.

Strategy Areas Related To Infrastructure

Strategy Area: Identifying And Funding Fisheries Infrastructure Priorities

Access to critical fisheries infrastructure—harbours, marine centres, cold storage facilities and so on—will enable Nunavut to capture additional value from its adjacent resources. Some of this infrastructure will be needed in order for inshore development to proceed. Some is useful for both inshore and offshore development.

Recommendation:

25. The NFWG should prepare a scoping study to identify infrastructure projects that will provide the highest returns on capital investments under various fisheries development scenarios. These analyses should be used to leverage funds from DFO and DIAND to begin building infrastructure to support Nunavut fisheries.
26. The need for marine infrastructure in Nunavut is severe. The federal government must step up to make the needed investments—as it has in the rest of Canada. Existing federal resources such as those of DFO's Small Craft Harbours program should be applied to meeting these needs.

Strategy Area: Building Fisheries Into Community Capital Planning

Fisheries infrastructure represents only a part of Nunavut communities' total infrastructure development program. Strategic efforts need to be made to ensure that community capital planning anticipates and then integrates fisheries infrastructure needs into the larger picture.

Recommendation:

27. Ensure that future fisheries opportunities are considered when communities plan for their overall capital infrastructure requirements. Specifically, link fisheries infrastructure planning to infrastructure requirements for local marine access, for sealift re-supply and for cruise ship tourism planning.

3.7 BUSINESS CAPACITY AND SUPPORT

Strategy Area: Meeting The Business Management Needs For The Fisheries Sector

Recommendation:

28. The potential for developing a fisheries management consulting service within Nunavut—perhaps housed within NDC or one of its subsidiaries—should be explored. Managerial expertise available within NDC plants might be made accessible to other enterprises. The aim is to achieve the best use of scarce fisheries business management resources. This may require training and hiring efforts to ensure that managers' time is not diverted to more 'mundane' tasks such as record-keeping and equipment maintenance.
29. Small independent businesses and HTOs should be provided resources and business training to undertake fisheries planning based on the best available knowledge of the industry.

Strategy Area: Assessing Fisheries Economics And On-Going Subsidies

Recommendation:

30. Use 'net economic return to Nunavut' in addition to 'enterprise profit' as an additional frame for analysis. This approach recognizes the public nature of the fisheries resource and the widely held expectation that this resource should provide benefits in terms of jobs and local harvesting opportunities and not only profits. The analyses developed in Recommendation 11 should be used.
31. A business case analysis needs to be developed in order to determine the net cost or benefit of fisheries subsidies to the territorial government's bottom line.
32. Provide funding to support well-documented pilot projects as a means of assessing the costs and benefits of various inshore fisheries opportunities.

Strategy Area: Gaining Value Through Import Substitution

Recommendation:

33. Business planning in the fisheries sector should include a consideration of strategies to market products within the territory.

Background to the issues

Businesses can sometimes develop 'spontaneously' in response to new opportunities when the appropriate business climate exists. This 'climate' includes a wide range of policy and institutional arrangements such as good information, supporting infrastructure, financial institutions, monetary policy, a capable labour force, and a wide range of other supports.

In emerging economic sectors, however, these business prerequisites seldom fall into place just on their own. More commonly, business development is facilitated by active public policy and public investment that intervenes in various direct and indirect ways to create the conditions required for entrepreneurial success. Business development, therefore, is subject to strategic public policy and investment choices.

Assessing the viability of an 'enterprise' depends to a certain degree on the frame of reference used to undertake the analysis. For private business owners, this frame of reference will be the individual business. If the business returns a profit, it is successful, if not, it is not viable. At a community or societal level, however, the frame of analysis may be at a larger scale. If a business—or a network of businesses that combine to create a sector—generates a positive net flow of wealth into a community or society, then it may be deemed to be successful even

if the more narrow analysis returns a negative viability result. Public cost-benefit analyses may include the reduction in income support payments and the payment of income taxes on the positive side of a business analysis.

These societal benefits do not directly benefit a private-sector business owner, however. When private business activities return positive net wealth to society, then it may be a legitimate function of government to adjust the 'climate' for business to ensure that these business activities are reasonably profitable. In this way there will be an incentive for entrepreneurs—either as individuals or as cooperative, community-owned entities—to pursue these socially beneficial opportunities. Clearly, the way in which business opportunities are analysed may have an important impact on business feasibility assessments.

Business ownership and structure is another significant factor that can influence the direction of development. Community-owned, co-op, or 'constituency controlled' business models may be more ready to accept benefits other than cash dividends in determining their on-going support for a business. Thus, for example, Qikiqtaaluk Corporation includes in its public financial reporting the level of wages it pays and the value of sub-contracts it lets to Inuit-owned companies. Business structure can also determine an enterprise's ability to recruit and hire technical management expertise. Larger-scale operations may be able to absorb the added costs of professional management, while small companies may need to rely on locally available capacity.

Current progress

Business development is needed if Nunavut is to capture more than just the royalty value of its offshore stocks. The types of fisheries enterprises that should be developed, and the model that should be used will depend on the way in which Nunavut decision-makers choose to assess the viability of these businesses.

Currently the viability of both the char fishery and the entire processing sector is based on policy related to subsidies and investment in job creation. Char plants—both the publicly-owned Nunavut Development Corporation plants in Rankin Inlet and Cambridge Bay, and the privately owned plant in Iqaluit—rely on the fish freight subsidy to help offset Nunavut's high transportation costs. The NDC plants have also required on-going subsidy payments. Presumably this on-going support is being made on the basis of an economic analysis at a higher level than the enterprise itself. These processing plants do provide a positive net economic return to Nunavut.

The current subsidy regime has enabled both char and turbot processing to proceed. These plants contribute a total of roughly \$2 million in wages and fishermen income. Operating subsidy levels for these plants' fish processing operations total roughly \$650,000. The net return to the Nunavut Government—reduced Income Support, increased personal income tax—has not been assessed however. Thus while NDC subsidies provide a clear benefit to Nunavummiut, the business case for the GN to support new subsidized plants has not yet been made.

In the offshore, development has essentially followed a 'post-Atlantic-expansion spontaneous development' model. This is to say that, once federal supports and indirect subsidies created a capable offshore industry during the 1980s in the Atlantic provinces, these companies have been allowed to 'spontaneously' engage themselves in the opportunities presented in

Nunavut's adjacent waters. Lacking the support other regions received in their development periods, Nunavut interests have been left to gather royalty revenues in a non-entrepreneurial mode.

Recent organisational efforts through the NFWG and establishment of the BFC have begun to highlight the need to create conditions favourable for Nunavut business engagement in its adjacent fisheries. The most important initiative here has been the award of a large quota block to the coalition. This has provided the critical mass of revenue needed to allow the organisation to hire the management expertise needed to move toward business activity.

The NDC and GN have recently initiated a coordinated approach to 'branding' Nunavut's arctic char products. This is intended to overcome the challenges that each of the small regional plants face in carrying out their own marketing efforts independently from one another.

Challenges

Subsidies seem to be a bit of a 'hot-button' issue in Nunavut. Some seem to expect them to be available for any and all business activities. Others would argue that business should either be viable on their own under the existing business climate or not be pursued at all. Finding the appropriate conditions for using direct and indirect subsidy is a major challenge facing Nunavut decision-makers.

Part of this challenge is working with the historical subsidies that are already in place. The processing plants, for example, were initially envisioned to become profitable businesses following a short-term (five-year) period of subsidy. This did not happen and although these businesses provide a net economic benefit to the territory, they do require an on-going cash stream from the territorial government's limited financial resources.

Unequal subsidy regimes between public sector (NDC-owned processing plants), quasi-private sector (BFC), and fully private sector (Iqaluit Enterprises' char plant, owner-operator fishermen) has not been too contentious in the past. For example, the private char plant in Iqaluit has developed a beneficial relationship with the subsidized NDC-owned plant in Pangnirtung. However, this political calm could be disturbed in the future. Subsidy issues and policy may need to be revisited at some point. Why should an NDC plant get job-creation subsidies, while a private sector plant doesn't? Should inshore clam divers receive a subsidy for the jobs they create in diving? In processing the clams? Can subsidies ever be pulled back from struggling enterprises and the enterprises left to fend for themselves economically? These are sticky and highly political issues—yet at some point there needs to be at least a discussion of the principles and objectives that are intended to guide Nunavut's development subsidy initiatives.

Decisions regarding the allocation of limited quota and of direct or indirect subsidies should be made on the basis of analysis of comparative returns at both the enterprise and community or territorial levels. To date this analysis has not been done. As a consequence, decision-making is going to be vulnerable to political influence and it may be difficult to demonstrate to the public why one option is preferred over some other option. Inuit organisations in particular seem to have a good comprehension of the nature of the multiple bottom-line benefits that can be generated by enterprises—beyond the narrow enterprise 'net income' line.

Management expertise is a scarce resource in Nunavut's smaller communities. As a consequence managers need to be brought in to provide entrepreneurial and organisational direction. The costs associated with this influence the size of enterprises that can become viable, with the preference going toward larger over smaller businesses. Yet Nunavut's small and widely dispersed markets, resources, and communities would seem to better support smaller businesses.

Strategic Issues:

- Clear principles need to be established to guide business development decisions. To start with, agreement should be established regarding the analytical frame to be used in assessing the benefits of alternative business approaches.
- A profitable business may yield a lower net economic benefit to the territory than an unprofitable business. This is clearly the case with quota brokerage businesses versus processing businesses. It may be the case with onshore processing versus offshore fishing. The analysis needs to be done. To what extent can the business climate be adjusted to align enterprise profitability with social benefits so that entrepreneurs choose to pursue the opportunities most beneficial to Nunavummiut?
- Management issue: The NDC can offer important coordination and supportive management functions for its subsidiary companies. Can these services be expanded in order to lower the management costs of individual small plants?
- This part of the strategy should provide guidance to decisions about where and how to allocate scarce public resources and how to design incentives to move private resources in desired directions.

Strategy Areas Related To Business Capacity and Support

Strategy Area: Meeting The Business Management Needs For The Fisheries Sector

Nunavut has not yet generated adequate 'in-house' managerial or entrepreneurial expertise required to organise fisheries enterprises. As a consequence, appropriate skills need to be recruited from outside the territory. This may be achieved either by hiring staff or contracting out the needed support. The costs involved with either option will influence the size of enterprise that is likely to be viable.

Smaller, independent fisheries businesses as well as HTOs will require business planning and enterprise management capabilities as they emerge. Existing small business programs and local community economic development officers can assist here. However these service providers may themselves need support to understand the fisheries sector and the opportunities it presents.

Recommendation:

28. The potential for developing a fisheries management consulting service within Nunavut—perhaps housed within NDC or one of its subsidiaries—should be explored. Managerial expertise available within NDC plants might be made accessible to other enterprises. The aim is to achieve the best use of

scarce fisheries business management resources. This may require training and hiring efforts to ensure that managers' time is not diverted to more 'mundane' tasks such as record-keeping and equipment maintenance.

29. Small independent businesses and HTOs should be provided resources and business training to undertake fisheries planning based on the best available knowledge of the industry.

Strategy Area: Assessing Fisheries Economics And On-Going Subsidies

Fisheries provide important employment opportunities in communities with processing plants. These plants also provide a market for locally and regionally fished char and turbot, and may support additional inshore fisheries in the future. However, processing plants often require on-going subsidy since northern costs are high and scale-of-operation is small. They may also require access to offshore fish in order to maintain operations when inshore fishing results are variable (as is the case with ice-fishing in Pangnirtung).

In order to assess whether potential fisheries enterprises are worth pursuing, and to carry out comparative analysis needed to set priorities, business feasibility should be carried out at a higher level than only the enterprise itself.

Recommendation:

30. Use 'net economic return to Nunavut' in addition to 'enterprise profit' as an additional frame for analysis. This approach recognizes the public nature of the fisheries resource and the widely held expectation that this resource should provide benefits in terms of jobs and local harvesting opportunities and not only profits. The analyses developed in Recommendation 11 should be used.
31. A business case analysis needs to be developed in order to determine the net cost or benefit of fisheries subsidies to the territorial government's bottom line.
32. Provide funding to support well-documented pilot projects as a means of assessing the costs and benefits of various inshore fisheries opportunities.

Strategy Area: Gaining Value Through Import Substitution

Getting fish out of the water and packaged in a form that can be sold adds only about half of the value that these fish represent by the time they get to the consumers' table. Depending on how these fish are caught and where they are processed, much of this "wholesale" value never enters Nunavut's economy.

Capturing the retail mark-up by selling Nunavut fisheries products inside the territory can significantly add to the total value of the sector. Since most of Nunavut's food supply is imported from the south, retail purchase of fish products represents a substitution of imported foods with Nunavut product. This adds value to the territorial economy.

Recommendation:

33. Business planning in the fisheries sector should include a consideration of strategies to market products within the territory.

4.0 SUMMARY OF RECOMMENDATIONS

4.1 SCIENCE AND CONSERVATION

Strategy Area: Building Conservation Into The Sector—Getting The Incentives Right

Recommendations:

1. Business planning for fishing in Nunavut's adjacent waters, as well as for inshore harvesting, need to include an assessment of the potential pressures that proposed developments will place on the resource. This analysis should include an assessment of risk that failure in one area of the plan (say, declining market prices or increasing interest rates) may have on demand on the resource. Once major funding commitments have been made and livelihoods developed, political pressure has been known to 'trump' conservation concerns.
2. The current control of the OA fishery by Nunavut interests should be guaranteed, even if choices are made to fish using conservation methods that harvest below the Total Allowable Catch (TAC). Avoid a 'fish-it or lose-it' policy.

Strategy Area: A Nunavut Fisheries Science Agenda—Need For Federal Support

Recommendations:

3. The Nunavut Fisheries Working Group (NFWG) and DFO should develop a Nunavut Fisheries Science Agenda to address strategically important research areas, including fundamental marine ecosystem and hydrographical research, research needed to assess and model climate change impacts, research in support of inshore and offshore industry development, and research related to the conservation and domestic and commercial use of arctic char.
4. The NFWG and DFO should design a multi-year funding strategy to implement the Nunavut Fisheries Science Agenda. This strategy should incorporate both federal as well as industry funding commitments, and should address issues related to both the char as well as marine fisheries.

4.2 ORGANISATIONAL CAPACITY AND GOVERNANCE

Strategy Area: Transparency And Accountability In Use Of Public Resources

Recommendation:

5. Consideration should be given to requiring recipients of Nunavut quota to share enough information about their activities to allow an assessment of the net economic return to Nunavut arising or reasonably expected to arise from the quota. The results of this assessment should be made available for public consideration.
6. A review of the membership, ownership, structure and level of public accountability of the Baffin Fisheries Coalition should be carried out in order to strengthen the organisational effectiveness of Nunavut's fisheries development 'champion.'

Strategy Area: Engaging DFO

Recommendation:

7. Begin a process of DFO re-engagement by involving the department in strategy consultations and by separating on-going allocation negotiations from discussions related to areas of common interest.
8. Work to create a higher political profile for Nunavut within DFO by advocating to bring Nunavut's fisheries files within one centralized office of the department— not spread between various regional and central offices.

Strategy Area: Management For Inshore Development—Seeking Synergies

Recommendation:

9. Management capacity from local processing plants could provide the on-going entrepreneurial and managerial guidance needed for the inshore fishery. Continue to support emerging fisheries on a pilot basis in order to determine their 'technical' viability. Include this information when assessing the potential returns of building new processing plants—looking for potential synergies in terms of shared management capacity.

Strategy Area: Coordination Of Marketing

Recommendation:

10. Expand efforts to coordinate the creation and promotion of a 'crisp and clean' Nunavut brand targeted at markets both within Nunavut as well as in strategic high-value export markets. This brand should be available both to the existing Nunavut Development Corporation (NDC) plants, as well as to independent producers who are able to meet the brand standards.

4.3 REVENUE GENERATION AND FUNDING

Strategy Area: Using Quota Royalty Revenues To Achieve Development Objectives

Recommendation:

- I 1. Before financial commitments are made based on OA turbot quota, each of the different ways quota can be used to generate benefits for Nunavummiut should be carefully analysed. The analysis should consider sensitivity to risks, distribution of benefits, labour market development, and other factors.
- I 2. Efforts to develop a viable business plan that encompasses both offshore harvesting with inshore harvesting and processing—perhaps under several distinct enterprises—should be undertaken. This process will help to map out a development pathway to achieve medium and long-term goals.

Strategy Area: Gaining Access To Federal Aboriginal Fisheries Development Programs

Strategic Recommendation:

- I 3. DFO should include Nunavut Inuit in its programs designed to support Aboriginal fisheries development and fisheries management capacity-building.

Strategy Area: Generating Funds For Arctic Fisheries Development

Strategic Recommendation:

- I 4. Keep quota together as much as possible. This will allow the revenue-generating aspect of quota (selling it to generate royalties) to be applied toward strategic development priorities.
- I 5. Prepare a concept paper outlining a new 'arctic fisheries' model that reflects the Inuit interest and the 'public good' value of arctic fisheries. This model would establish a resource 'rent' payment from NSA, Zone I and Zone II fisheries that reflects the 'public' and 'Inuit' interest in the fisheries resource, under the land claims agreements. These 'resource access' fees would flow to some new, publicly accountable entity tasked to achieve science and development objectives.

4.4 LICENSES AND QUOTA ('ACCESS AND ALLOCATION')

Strategy Area: Strategy To Continue Working Toward A Fair Share Of Allocation

Recommendation:

16. Current efforts to gain an 80 to 90% share of quota in each of Nunavut's adjacent fisheries should be continued on a priority and urgent basis. This is the engine to drive fisheries development and is, therefore, the foundation to building the future.
17. An advocacy and communications strategy is needed to support and focus these efforts. IPAC has made the case, Senators and Members of Parliament have reported in favour of Nunavut. This support needs to be crystallized into action.

Strategy Area: Refining Criteria For Allocating New Quota and For Future Withdrawal of Quota

Recommendation:

18. Maintain the current allocation of OA offshore quota in a block in order to generate the scale and flexibility needed to support strategic fisheries development.
19. The analyses developed in Recommendation 11 should be used to refine and 'illustrate' the criteria arising from existing allocation principles related to economic dependence and 'direct benefits'. In addition, the allocation criteria could provide greater detail in how the various criteria are weighed and balanced.
20. Processes for withdrawal of quota should be developed in advance of the situations that might make such withdrawal necessary. These need to be prepared both for Nunavut quota managed by NWMB, as well as for DFO-managed quota in adjacent waters.

4.5 LABOUR MARKET

Strategy Area: Improve Recruitment By Understanding Inuit Demand For Fisheries Work

Recommendation:

21. Detailed analysis of Inuit fisheries workers' experience and expectations should be carried out for each of Nunavut's fisheries sectors. This analysis should be factored into decisions on alternative fisheries development strategies. Where choices are available, efforts should be focused on creating the kinds of jobs Inuit prefer to hold. Matching demand with supply preferences should improve labour market success.

Strategy Area: Build Fisheries Labour Force Capacity Through Training

Recommendation:

22. Training programs need to be developed to address the most urgent labour supply issues. What are the skills gaps that are costing Nunavut the greatest lost opportunity? When assessing the cost of training versus the benefits to be derived, analysis needs consider if scarce resources—both financial and trainees' time—might yield greater benefits in other sectors.
23. Training programs should be designed to be effective:
 - Start by building the fundamentals: literacy, life-skills, and education;
 - Invest training in the right people;
 - Adopt best training practices for Inuit; and,
 - Take a career development orientation to training and recruitment.

Strategy Area: Understanding Workplace Dynamics To Improve Retention Of Workers

Recommendation:

24. Job retention strategies are needed for both the processing and offshore vessel sectors. These need to be based on a good understanding of the workplace qualities sought out by Inuit workers and the critical issues that contribute to, or detract from, job retention.

4.6 INFRASTRUCTURE

Strategy Area: Identifying And Funding Fisheries Infrastructure Priorities

Recommendation:

25. The NFWG should prepare a scoping study to identify infrastructure projects that will provide the highest returns on capital investments under various fisheries development scenarios. These analyses should be used to leverage funds from DFO and DIAND to begin building infrastructure to support Nunavut fisheries.

26. The need for marine infrastructure in Nunavut is severe. The federal government must step up to make the needed investments—as it has in the rest of Canada. Existing federal resources such as those of DFO's Small Craft Harbours program should be applied to meeting these needs.

Strategy Area: Building Fisheries Into Community Capital Planning

Recommendation:

27. Ensure that future fisheries opportunities are considered when communities plan for their overall capital infrastructure requirements. Specifically, link fisheries infrastructure planning to infrastructure requirements for local marine access, for sealift re-supply and for cruise ship tourism planning.

4.7 BUSINESS CAPACITY AND SUPPORT

Strategy Area: Meeting The Business Management Needs For The Fisheries Sector

Recommendation:

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29. Small independent businesses and HTOs should be provided resources and business training to undertake fisheries planning based on the best available knowledge of the industry.

Strategy Area: Assessing Fisheries Economics And On-Going Subsidies

Recommendation:

30. Use 'net economic return to Nunavut' in addition to 'enterprise profit' as an additional frame for analysis. This approach recognizes the public nature of the fisheries resource and the widely held expectation that this resource should provide benefits in terms of jobs and local harvesting opportunities and not only profits. The analyses developed in Recommendation 11 should be used.
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Strategy Area: Gaining Value Through Import Substitution

Recommendation:

33. Business planning in the fisheries sector should include a consideration of strategies to market products within the territory.