



Development of an integrated fisheries co-management framework for new and emerging commercial fisheries in the Canadian Beaufort Sea

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ABSTRACT

The Canadian Beaufort Sea is one of the last places on Earth that has not experienced large-scale commercial fisheries. The aboriginal people of the western Canadian Arctic, the Inuvialuit, have become increasingly concerned about the potential effects of large-scale commercial operations on key subsistence species of fish and marine mammals and the marine ecosystem upon which they depend. A 1984 comprehensive land settlement agreement (treaty) between Canada and the Inuvialuit established a co-management regime for limited aspects of fish and marine mammal resource management, and gave the Inuvialuit rights to subsistence fisheries and existing commercial fisheries but no preference for new commercial fisheries. The Fisheries Joint Management Committee (the fisheries co-management body), the Canada Department of Fisheries and Oceans, the Inuvialuit Regional Corporation and the Inuvialuit Game Council have developed an integrated fisheries management framework agreement for the review and assessment of any proposed commercial fisheries within the Canadian Beaufort Sea. The agreement provides clarity and transparency for decision making and strengthens the protection of fish stocks. The development of the framework depended upon a history of cooperation between the parties and a bridging initiative by the Fisheries Joint Management Committee and an NGO that brought together the Inuvialuit and the government.

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1. Introduction

The Canadian Beaufort Sea is one of the last marine areas on earth that has not experienced large-scale commercial fisheries. The Beaufort Sea is located north of the mainland Northwest Territories and Yukon Territory west of the Canadian Arctic Archipelago and east of the Canada Basin, a deep oceanic basin within the Arctic Ocean. It extends approximately 750 km east from the Canada/Alaska border, past the Delta of the Mackenzie River, the largest Arctic river in North America, and, for this discussion, to the eastern boundary of the Amundsen Gulf. The area is characterized by a harsh climate [1]. The sea is ice-covered for much of the year but recently the ice-free period of summer is expanding due to climate warming [2]. Prior to European contact the aboriginal people of the area, the Inuvialuit, were among the

most prosperous people in the Arctic because of their access to marine and freshwater resources. They made use of, and continue to make use of beluga (*Delphinapterus leucas*) and bowhead whales (*Balaena mysticetus*), ringed seals (*Pusa hispida*) and anadromous Arctic char (*Salvelinus alpinus*) and Dolly Varden char (*Salvelinus malma*) as well as land mammals, birds and freshwater fishes [3–5]. In 1984 the Inuvialuit and the Government of Canada signed a modern comprehensive land settlement agreement, the Inuvialuit Final Agreement (IFA) [6], which gives the Inuvialuit increased control of their own destiny, including increased control over the fisheries and fish and marine mammal resources.

The Inuvialuit Settlement Region (ISR) has six permanent communities directly on the shores of the Beaufort Sea, and in the Mackenzie River delta. The population is small, less than 5500, and provision of municipal and government services is a major economic factor for all communities [7]. Oil and gas exploration on land and offshore was important in the 1970 s and 1980 s and then again in the 2000 s but is currently mostly inactive [8]. Commercial fisheries are very small and limited to anadromous char for

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local sales, but in the first decade of this century there were several expressions of interest in nearshore marine fisheries opportunities from fishers from southern Canada.

In recent years the Inuvialuit have become increasingly concerned about the potential effects of large-scale commercial fisheries operations on key subsistence species and the marine ecosystem. Prior to the IFA, fisheries were managed exclusively by the federal government's Department of Fisheries and Oceans (DFO). The IFA established a co-management regime, with the new Fisheries Joint Management Committee (FJMC) responsible for specified aspects of fisheries management in collaboration with the DFO and the Inuvialuit [6]. There are many different definitions of co-management. In the Canadian north it is a long-term management structure, established by treaty or land settlement agreement, which permits aboriginal people to share management responsibility with government for a specific system of natural resources. Co-management relationships in the Canadian Arctic are diverse. A particular role for the FJMC and other co-management organizations is that of a bridging or boundary organization linking different stakeholder groups in a wide range of activities [9]. These bridging, co-management organizations deal with a range of issues, and the networking that they lead helps address conflicts, builds trust, helps access resources and helps develop common goals and processes [9]. In the endeavour described in this paper the FJMC, working with an NGO, served as a bridge between Inuvialuit organizations and fishers, and the federal government to develop a framework for commercial fisheries management decision-making in the Beaufort Sea.

This paper describes and assesses the process undertaken by FJMC, the DFO, the Inuvialuit Regional Corporation (IRC) and the Inuvialuit Game Council (IGC) to develop a precautionary integrated fisheries management agreement that provides an innovative co-management framework for making decisions on any proposed commercial fisheries within the Canadian Beaufort Sea. It considers the current governance processes for fisheries management in the ISR, the changes over the past two decades in Inuvialuit attitudes to large scale commercial fisheries development, the history of engagement between the Inuvialuit, DFO and the FJMC on a range of fisheries and environmental issues, the legal and environmental context for a fisheries agreement, the new "decision key process", and implications for emerging fisheries in the Canadian Beaufort Sea and elsewhere. Throughout the description of the process we address the bridging role of the FJMC and its NGO partner, Oceans North Canada, and emphasize the roles that were crucial for this framework and may be of importance for similar developments elsewhere.

2. Fisheries management in the ISR

2.1. Fisheries management in Canada

In Canada the DFO has constitutional authority for sea, coastal, and inland fisheries. DFO exercises this authority through the *Fisheries Act* [10], ² *Oceans Act* [11], and the *Species at Risk Act* (SARA) [12], and their supporting regulations and policies.

The DFO's policies under the *Fisheries Act* are most relevant to the development of commercial fisheries in the Beaufort Sea. The Sustainable Fisheries Framework has four main elements: (1) conservation and sustainable use policies, (2) economic

policies, (3) governance policies and principles, and (4) planning and monitoring tools. Currently the Framework has seven conservation and sustainable use policies. It is generally implemented through Integrated Fisheries Management Plans (IFMPs) [13]. Two other policies are also relevant for the Beaufort Sea: the New Emerging Fisheries Policy and the Integrated Aboriginal Policy Framework. The New Emerging Fisheries Policy generally guides the development of new commercial fisheries through three stages: feasibility, exploratory, and commercial. The Integrated Aboriginal Policy Framework provides guidance to DFO employees in building respectful and mutually beneficial relations with Aboriginal groups. Its goals include enhancing involvement of Aboriginal groups in fishery management decision-making processes using a shared stewardship model, and continuing to manage fisheries consistent with the constitutional protection provided to Aboriginal and treaty rights by the *Constitution Act* and the *Fisheries Act* (see Section 4.1 below for elaboration for the ISR).

The *Oceans Act* enables the Minister of Fisheries and Oceans to lead and facilitate the development and implementation of plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters, and marine waters. These actions are to be in collaboration with bodies established under land claims agreements. In the Beaufort Sea an Integrated Oceans Management Plan and a Marine Protected Area (MPA) have been established, a second MPA is near completion, and Ecological and Biologically Sensitive Areas (EBSAs) have been identified [14].

The SARA was enacted to prevent Canadian species, subspecies and populations from becoming extirpated or extinct, to provide for the recovery of endangered species, and to encourage the management of species to prevent them from becoming at risk. Under the *Act* species recovery strategies are mandated for endangered, threatened and extirpated species, and any such strategy must be prepared in cooperation with the relevant management board as established by a land claims agreement. In the Canadian Beaufort Sea the northern form of Dolly Varden, northern wolffish (*Anarhichas denticulatus*), the bowhead whale, and grey whale populations (*Eschrichtius robustus*) are listed in the species at risk public registry [15].

2.2. Fisheries co-management in the ISR

Fisheries in the Canadian Beaufort Sea are jointly managed by the Inuvialuit and the Government of Canada (DFO) through the FJMC co-management body. This co-management process was established through the IFA [6,16]. The IFA is built around Inuvialuit culture, rights and resources. Its goals are as follows:

- To preserve Inuvialuit cultural identity and values.
- To enable Inuvialuit to be equal and meaningful participants in the economy and society.
- To protect and preserve Arctic wildlife environment and productivity.

In the IFA the Inuvialuit gave up exclusive rights to their ancestral lands in exchange for guaranteed rights related to lands, money and wildlife (including fish). They also secured hunting and harvesting rights and the right to become part of wildlife management teams with the government.

The IFA led to the establishment of the Inuvialuit Regional Corporation (IRC) [17] that manages the rights and benefits arising from the agreement, the Inuvialuit Game Council (IGC) that represents the collective Inuvialuit interest in respect to wildlife, and five resource co-management boards [7,17]. The responsibilities of these boards are close to the more complete versions of co-management along the gradient of co-management from informing

² Section 91 of the Constitution Act (1982) defines the constitutional authority for fisheries as such: "the exclusive legislative authority of the Parliament of Canada extends to ...sea coast and inland fisheries..." Provincial governments may also exercise various responsibilities for the fishing industry based on their overall constitutional responsibilities for private property.

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