



ARCTIC FISHERIES

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Introduction

This background paper focuses on fisheries that occur in the Arctic marine area, including for anadromous species that spawn in rivers that flow directly into the Arctic marine area. The paper follows a sectoral perspective, but in pursuance of an ecosystem approach to fisheries (EAF). Due to this sectoral perspective, the focus will be exclusively on international instruments and intergovernmental and other relevant international bodies that relate to, or pursue, conservation as well as management.

Current Arctic fisheries

The broad spatial scope of the Arctic marine area implies that it includes a wide range of different ecosystems, fish stocks and fisheries. Significant differences exist for instance between the Atlantic and Pacific sides of the Arctic marine area. Chapter 13 on 'Fisheries and Aquaculture' of the Arctic Climate Impact Assessment (ACIA) Scientific Report reflect these differences by focusing only on the four major Arctic and Subarctic marine fisheries and their ecosystems, namely (i) the Barents and Norwegian Seas (ii) the waters around Iceland and off East Greenland, (iii) the Newfoundland and Labrador Seas and (iv) the Bering Sea. The species

discussed in this chapter are a selection that is based to a considerable extent on the focus on these four areas. Saying anything useful about the relative importance of fisheries for these species is impossible without going into a lot of detail. Pursuing an EAF is not only a challenge in view of the complexity of the functioning of Arctic marine ecosystems and the limitations and shortcomings of science, but presumably also the lack of necessary data.

The ACIA does not examine subsistence fisheries in the Arctic marine area under a separate heading, but devotes attention to them within the scope of these four spatial areas. It seems, likely, however, that subsistence fishing in the other parts of the Arctic marine area will be relatively more important to indigenous peoples.

Arctic fisheries and climate change

While warmer Arctic surface and water temperatures, reductions in sea ice coverage and thickness, reduced salinity, increasing acidification and other oceanographic and meteorological changes are all factors that are certain to affect Arctic marine ecosystems, accurate predictions cannot be made. The composition of Arctic marine ecosystems will undoubtedly change; qualitatively, quantitatively, spatially and temporally. Where new fishing opportunities will occur (on the high seas or within coastal state maritime zones) and with respect to which species or category of species (e.g. shared, anadromous, straddling or highly migratory) is also difficult to predict. Similarly which states - Arctic Ocean coastal states or other states - will benefit or suffer and how subsistence fishing will be affected, among other things by competition with commercial fisheries. Finally, as reduced ice coverage and thickness will also enable other human activities - most importantly shipping and offshore hydrocarbon



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activities - these activities may compete with fishing in a spatial sense or affect them by pollution and other impacts.

The impact of current and future Arctic fisheries on the marine environment and marine biodiversity in the Arctic is not likely to be fundamentally different from impacts to the marine environment and biodiversity in other parts of the globe. Arctic fisheries could lead to over-exploitation of target species and a variety of impacts on non-target species, for instance on dependent species due to predator-prey relationships, on associated species due to by-catch and on benthic species due to bottom fishing techniques. In view of the broad spatial scope of the Arctic marine area, such undesirable effects are without doubt already occurring, even though not necessarily on a very serious scale.

International legal and policy framework

The aim of this section is to provide an overview of the international legal and policy framework and some national regulation with respect to Arctic fisheries. The purpose of regulating Arctic fisheries follows from the core focus of Arctic TRANSFORM, namely the protection and preservation of the marine environment and marine biodiversity of the Arctic marine area. Even though fisheries are approached from a sectoral perspective, the objective is to pursue an EAF.

As a consequence of the sectoral perspective of this paper, the focus will be exclusively on international instruments and intergovernmental and other relevant international bodies that relate to, or pursue, conservation as well as management. No attention will therefore be paid to those that focus exclusively on conservation of species and habitat by various means, including by the regulation of international trade.

Global instruments and intergovernmental organizations and bodies

All the global legally binding and non-legally binding instruments related to fisheries conservation and management are also applicable to the Arctic marine area. The most important ones are the United Nations Convention on the Law of

the Sea (LOS Convention), the Fish Stocks Agreement, the United Nations Food and Agriculture Organization (FAO) Compliance Agreement, the FAO Code of Conduct for Responsible Fisheries, and its Technical Guidelines, international plans of action (IPOAs) - for instance the IPOA-IUU - and the Model Scheme on PSM, and Resolutions of the United Nations General Assembly (UNGA), among other things on driftnets and destructive fishing practices. Moreover, the Arctic marine area also falls in principle within the competence of the bodies established by these instruments or that are responsible for adopting them.

RFMOs and Arrangements

The following regional fisheries management organizations (RFMOs) and Arrangements are relevant for this paper:

- the International Commission on the Conservation of Atlantic Tunas (ICCAT), established by the ICCAT Convention;
- the bilateral (Canada and the United States) International Pacific Halibut Commission (IPHC), established by the IPHC Convention;
- the bilateral (Russian Federation and the United States) Intergovernmental Consultative Committee (ICC), established by the Agreement on Mutual Fisheries Relations;
- the Northwest Atlantic Fisheries Organization (NAFO), established by the NAFO Convention. Its main regulatory body is the NAFO Fisheries Commission;
- the North Atlantic Salmon Conservation Organization (NASCO), established by the NASCO Convention;
- the North East Atlantic Fisheries Commission (NEAFC), established by the NEAFC Convention;
- the North Pacific Anadromous Fish Commission (NPAFC), established by the NPAFC Convention;
- the Norway-Russian Federation Fisheries Commission, established by the 1975 Framework Agreement and the trilateral Loophole Agreement and Protocols;
- the Western and Central Pacific Ocean Fisheries Commission (WCPFC), established by the WCPFC Convention; and
- the Yukon River Panel of the bilateral (Canada and the United States) Pacific Salmon

Commission (PSC), established by the Pacific Salmon Treaty; and

- the annual Conference of Parties (CoP) to the CBS Convention.

National regulation

In some parts of the Arctic marine area, for instance the North Atlantic, national regulation is expected to be extensive and relate to all or most of the relevant capacities in which states can exercise jurisdiction, namely as flag, coastal, port and market states.

In other parts of the Arctic marine area, however, the presence of ice for most of the year has so far rendered national regulation unnecessary. But as diminishing ice-coverage will attract fishermen looking for possible new fishing opportunities, Arctic states will be required to develop national regulation in order to discharge their obligations under international law, including those under the LOS Convention and the Fish Stocks Agreement. The United States is currently engaged in this process with regard to fishing in the maritime zones of Alaska north of the Bering Strait. The North Pacific Fishery Management Council (NPFMC) plays a key role in federal regulation with regard to the maritime zones of the United States in the North Pacific and is currently developing a comprehensive Arctic fishery management plan (FMP) which may be adopted in December 2008 and may become effective in 2009.

As some of the fish stocks in the EEZ off Alaska are likely to be transboundary, reference should be made to the United States Senate joint resolution (SJ Res.) No. 17 of 2007, "directing the United States to initiate international discussions and take necessary steps with other Nations to negotiate an agreement for managing migratory and transboundary fish stocks in the Arctic Ocean". The current United States Administration has so far informed Canada and the Russian Federation of SJ Res. No. 17 of 2007 and has expressed its willingness to engage in exploratory talks on the issue. The United States also brought SJ Res. No. 17 of 2007 to the attention of SAOs during their meeting in November 2007. During the discussion that followed there was "strong support for building on and considering this issue within the

context of existing mechanisms". This would seem to indicate that a considerable majority of the Arctic states does not want the Arctic Council to become directly involved in fisheries management and conservation.

Gaps in the international legal and policy framework and national regulation and options to address these

Gaps

The applicability of the abovementioned global instruments to the Arctic marine area also means that their shortcomings apply as well, for instance the non-applicability of the Fish Stocks Agreement to other fish stocks than straddling and highly migratory fish stocks. This is relevant for the Arctic context as new fishing opportunities are also likely to relate to shared and anadromous fish stocks.

In addition, while a considerable number of regional fisheries management organization (RFMOs) and Arrangements apply explicitly or implicitly to parts of the Arctic marine area, a large section of the Arctic marine area is not covered by an RFMO or Arrangement with competence over target species other than tuna and tuna-like species and anadromous species. The Arctic Council has so far not focused on the conservation and management of target species and also lacks any express mandate for conserving or managing Arctic fisheries. The Arctic Council can at any rate not be equated with a RFMO or Arrangement.

In some parts of the Arctic marine area, the presence of ice for most of the year has up until now rendered national fisheries regulation unnecessary. However, as diminishing ice-coverage will attract fishing vessels looking for possible new fishing opportunities, Arctic states will have to develop national regulation in order to discharge their obligations under international law.

Another gap relates to science and data. The complexity of the functioning of Arctic marine ecosystems as well as the limitations and shortcomings of science were noted in the ACIA. It is most likely that a lot of data required for pursuing an EAF is presently also not available. Fortunately, these aspects played a crucial role in

the development of the Arctic FMP within the NPFMC.

Options

The current international legal framework relating to fisheries in the Arctic marine area may require adjustments in view of current or future threats of fisheries to the marine environment and marine biodiversity in the Arctic marine area. An assessment of the need for such adjustments should start with the development of future scenarios about areas, dates, species, fishing techniques for which new fishing opportunities are likely to arise and potential impacts for non-target species. It may for instance reveal that new fishing opportunities in the Pacific side of the Arctic Ocean will be mainly located in the maritime zones of coastal states for a considerable time, whereas fishing opportunities in the Atlantic side may much sooner also encompass high seas areas that were not fished before. Such an assessment could be carried out in the framework of the Arctic Council (e.g. through its Conservation of Arctic Flora and Fauna working group (CAFF)) or independently.

In view of the discussion at the meeting of SAOs in November 2007, there is currently considerable opposition within the membership of the Arctic Council against it becoming actively involved in fisheries management and conservation. This opposition is likely to mean that the Arctic Council may not be used as a forum for discussing the options identified in this subsection, let alone be used as a forum for negotiating a legally binding or non-legally binding instrument on Arctic fisheries conservation and management.

In addition to ensuring the availability of relevant scientific data, *inter alia* by developing the scenarios mentioned above, the following options can be identified

- action by Arctic Ocean coastal states and other states in their capacities as flag, coastal, port and market states and with regard to their natural and legal persons;
- bilateral or subregional arrangements between the relevant Arctic Ocean coastal states on the conservation and management of shared fish stocks;

- a declaration by which the main relevant general principles of the Fish Stocks Agreement, the recent UNGA Resolutions in relation to vulnerable marine ecosystems and destructive fishing practices and relevant conservation and management measures drawn from RFMOs are made applicable to new fisheries in the Arctic marine area. In particular, this declaration could stipulate that there shall be no new fisheries until adequate assessments of their potential impacts on target and non-target species and livelihoods of indigenous peoples are carried out;
- mechanisms or procedures similar to an environmental impact assessment (EIA) and/or a strategic impact assessment (SEA) for new fisheries in the Arctic marine area; and
- one or more state-of-the-art RFMOs or Arrangements, whether self-standing or as part of a legally binding framework instrument for the Arctic and possibly in conjunction with adjustments in the competence of existence RFMOs or Arrangements, in particular in geographical terms.

In considering these and other options, Arctic states and other states may wish to pursue the same pro-active approach that led to the negotiations of the main instruments of the Antarctic Treaty system, which took place prior to the start of various commercial activities.

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ARCTIC TRANSFORM Transatlantic Policy Options for Supporting Adaptations in the Marine Arctic

For additional information about the project, please refer to the project website:

<http://www.arctic-transform.org>

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