

# Current State of the Arctic Marine Ecosystem Conservation/Fisheries Agreement

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## **1. Nature of the CAOF Agreement as an Ecosystem Conservation/Fisheries Management Agreement**

Global warming affects fishing world-wide by changing fish stocks distribution patterns, reproduction, and interaction between populations (ClimeFish, 2021). These processes create new opportunities for fishing in the areas where fishing has not happened before. It is still hard to predict the effects of global warming and migration patterns of species in the Arctic Ocean, but there is a possibility that species will move up north (CAFF, 2018). Although large-scale commercial fishing in the Central Arctic Ocean (CAO) will not be viable in the short-term perspective (Morishita, 2019), there remains to be a general lack of knowledge regarding Arctic flora and fauna, and with the possibility of changes in distribution of fisheries and marine ecosystems there is a need to protect the Arctic marine environment and regulate potential commercial fisheries.

Illegal, Unreported and Unregulated fishing (IUU fishing) is one of the major concerns connected with potential fishing in the CAO: it can inflict irreparable harm to the fragile marine environment due to overfishing and use of non-sustainable fishing practices. The UNCLOS,<sup>1</sup> the UN Fish Stocks Agreement (UNFSA),<sup>2</sup> alongside with customary law, form a basis for regulating potential IUU fishing in the Arctic. Both the UNCLOS and the UNFSA require states to cooperate in conserving and managing the marine living resources. In 2015 Arctic coastal states (Canada, Denmark, Norway, Russia, the USA) and concerned distant-water fishing nations (China, the EU, Japan, Iceland, South Korea) started a series of negotiations on a binding agreement to prevent IUU fishing to happen in the CAO (Morishita, 2021). As a result, the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean (CAOF) was adopted in 2018 and entered in force in 2021. The CAOF aims to

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<sup>1</sup> United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982, in force 16 November 1994) 1833 *UNTS* 396.

<sup>2</sup> Agreement for the implementation of the provisions of the United Nations convention on the law of the sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks. UN Doc. A/CONF. 164/37, 8 September 1995.

prevent IUU fishing to happen before illegal fisheries exist in the CAO (Morishita, 2021). This is unique to the CAO as compared to other fisheries agreements that are adopted in a reactive manner, after a problem with IUU fishing emerges (Morishita, 2021). The CAO Agreement fulfils the obligation of states to cooperate in conserving and managing the marine living resources and obligation to protect the marine environment and biodiversity under general environmental instruments. It also fills in the regulatory gap in the governance framework on the conservation and preservation of Arctic ecosystems.

### **1.1 Scope of the CAO Agreement**

The objective of the CAO is to prevent unregulated fishing in the high seas portion of the CAO through the application of the precautionary conservation and management measures as part of a long-term strategy to safeguard healthy marine ecosystems and to ensure the conservation and sustainable use of fish stocks (Article 2 of CAO). The CAO applies only to high seas in the Arctic Ocean and only to unregulated fishing, not the commercial fishing as such (Schatz, Proelss, Liu, 2018). The CAO will apply for the initial period of sixteen years and can remain in force for successive five years unless any Party objects. The CAO bans commercial fishing so the ten Parties can gain science-based knowledge on the Arctic ecosystems and sustainability of potential fishing activities (Arctic Council, 2020).

### **1.2 The Ecosystem-Oriented Character of the CAO**

The CAO is a first step in filling in a regulatory gap in the existing ocean governance framework on the conservation and preservation of Arctic ecosystems. Whereas it remains to be seen whether the CAO will become a truly ecosystem conservation instrument or will come down to fisheries management mostly, it has all the prerequisites to play a major role in the protection and preservation of the Arctic marine environment. The precautionary approach implemented in the CAO reflects a shared interests among Arctic and non-Arctic actors in ensuring environmental protection in the Arctic (Vylegzhanin, Young, Berkman, 2020).

The preamble of the CAO recognizes the crucial role of healthy and sustainable marine ecosystems and fisheries, and Article 2 confirms that the ultimate objective is to safeguard healthy marine ecosystems and to ensure the conservation and sustainable use of fish stocks. In order to protect Arctic ecosystems, the Parties may establish interim conservation and management measures, conduct scientific research under the framework of

the Joint Program of Scientific Research and Monitoring (JPSRM), authorize exploratory fishing only pursuant to conservation and management measures imposed under Article 5 (1)(d). JPSRM, that should be established within two years of the entry into force of the CAOFA, also aims at improving the understanding of the ecosystems of the CAOFA Agreement area. Moreover, Parties undertake the obligation to conduct scientific research subject to the protection of healthy marine ecosystems (Article 3(4)).

The CAOFA also extends provisions of Article 7 of the UNFSA on the compatibility of measures for fish stocks that occur in areas both within and beyond national jurisdiction to China, that is not a party to the UNFSA (within the CAOFA Agreement area). This reinforces the ecosystem-based measures in the Arctic. Ecosystem considerations also play a role in the determination of the necessity in the establishment of an RFMO or other arrangements (Article 5 (1)(c)(i) and affect future transition between the CAOFA and any potential new Agreement (Article 13 (3)). Therefore, the CAOFA, at least at this stage, represents an ecosystem-oriented instrument. At the same time, different approaches can be considered as ecosystem-oriented (Morishita, 2008), so it is unclear whether CAOFA will implement the ecosystem approach in practice.

### **1.3 Comparison to the Fisheries Governance in the Southern Ocean**

The Arctic and Antarctica are very different in terms of political situation, governance, and environment. Majority of the borders is defined and though there are several disputes, there are no serious conflicts over sovereignty (Antsygina, Heininen, and Komendantova, 2020). In contrast, Antarctica is far from anywhere with recognized land borders - there are seven countries that have territorial claims but most of the rest of the world do not accept those claims (Bloom, 2021). This creates uncertainties on the legal status of maritime zones in Antarctica while in the Arctic there are no doubts on the limits of the high seas portion of the CAO that is subject to the freedom of fishing.

As to the ecosystem components, the Arctic and Antarctica are different as well. Antarctica is a continent surrounded by the body of water while the Arctic Ocean is surrounded by the landmasses of Eurasia, North America, Greenland, and numerous islands. Large river system flows to the Arctic Ocean, which brings marine ecosystem components that are not present in the Antarctic (Morishita, 2021). Also, Antarctica does not have indigenous populations as opposed to the Arctic. Many Arctic lands were inhabited by the indigenous population prior to the arrival of Europeans. The indigenous possessions played a

role in the Arctic land acquisition, but not to the advantage of indigenous people. Now their rights and interests have to be considered in the Arctic governance.

As concerns the fisheries management, the Arctic is behind the Southern Ocean in terms of specific measures on conservation and management, and a regional fisheries management organization has yet been established in the Arctic (Bloom, 2021). CCAMLR has established two MPAs in the Southern Ocean, one is in the Ross Sea and a smaller MPA in the South Orkney Islands (Bloom, 2021). There are no MPAs established under the CAO of yet. Experience of CCAMLR on the establishment of MPAs may provide valuable insights to the Parties of the CAO (Vylegzhanin, Young, Berkman, 2020). CCAMLR also works on IUU fishing and compliance issues. In the case of the Antarctic, all the measures against IUU fishing are specific measures that are build based on the IUU situation which is not happening in the Arctic Ocean (Morishita, 2021). Should the IUU fishing emerge in the Arctic Ocean, some of the CCAMLR practices could be adopted by the CAO Parties.

#### **1.4 Challenges in the Implementation of the Joint Program of Scientific Research and Monitoring**

Article 4 of the CAO is devoted to the JPSRM that has to be established within two years from the entering into force of the Agreement. The implementation of the JPSRM is governed by the CAO, Part XIII of UNCLOS on Marine Scientific Research and the Agreement on Enhancing International Arctic Scientific Cooperation (Berkman, Vylegzhanin, and Young 2017). The aim of the JPSRM is to improve the knowledge on the ecosystems in the Agreement area, identify the distribution and abundances of species with a potential for future commercial harvests in the high seas and prospects for sustainable fishing for those stocks. Particularly, the Parties have to consider whether to establish an RFMO for the CAO and whether to establish additional interim conservation and management measures.

There are some challenges for the JPSRM implementation. The first one is how to approach the identification of species for potential commercial harvesting. Those species are not independent, they are part of marine ecosystem in the Arctic Ocean which is affected by inflows and interactions with the Pacific Ocean, Atlantic Ocean, and the river system, as well as climate change (Morishita, 2021). Therefore, there is a need to expand the horizon of the scientific activities quite extensively, beyond merely fisheries resources or its abundance (Morishita, 2021). Cooperation with the Arctic coastal states would be thus necessary to broaden the scope of the MSR activities to encompass areas within 200 M.

The second challenge refers to the identification of key ecological linkages between harvestable fish and other species and the relation between high seas portion of the Arctic Ocean and coastal waters where indigenous peoples are conducting hunting activities (Morishita, 2021). Commercialization of fishing in the CAO might affect those linkages. The third challenge concerns the need to have some assumption about what would happen to the ecosystem and fish populations in the next ten to thirty years in order to build a common understanding or common scenario for the future of this Agreement (Morishita, 2021). The last challenge stems from administrative and technical implementation: it is not clear how would the cooperation and the maritime monitoring control and surveillance be advanced in terms of the type of tools and technology-sharing system that will be used by the Parties (Wang, 2021).

### **1.5 Challenges in Incorporation of Indigenous and Local Knowledge**

The size of the population in the circum-Arctic region is about four million people and 10% of the present circum-Arctic population belongs to indigenous groups (Antsygina, Heininen, Komendantova 2020). Today, marine living resources are currently mainly utilized by indigenous peoples (Morishita, 2021). The indigenous people did not have an independent group as negotiating party at the CAOF negotiations, but were represented through national delegations (Morishita, 2021). The CAOF includes the reference to indigenous interests in the preamble as well as in several other provisions, including the scientific collaboration (Morishita, 2021). As Morishita argues, integration of human aspects is essential for successful implementation of ecosystem approach (Morishita, 2007). Therefore, the CAOF Parties have to consider the effects on indigenous communities in terms of (socio-economic) perspective while imposing management and conservation measures under the CAOF.

Another issue is how to incorporate knowledge of indigenous peoples in the Arctic Ocean into science (Morishita, 2021). Indigenous people have local knowledge and historical knowledge, which is not in a form of quantitative data or information like usual science (Morishita, 2021). The challenge is how the qualitative or historical knowledge of indigenous peoples can be merged with scientific assessment of fisheries and ecosystem (Morishita, 2021).

## **2. Potential for Russian and Japanese collaboration in the CAOF Implementation**

The CAOF represents a new way of Arctic Ocean governance by providing a more substantial role to non-Arctic actors that do not have much influence on Arctic affairs in the Arctic Council (Vylegzhanin, Young, Berkman, 2020). Through the CAOF, non-Arctic state parties to the Agreement can enhance their participation in the Arctic affairs with expertise in fisheries and science (Morishita, 2019). Cooperation is the most effective way to ensure such participation due to the following reasons. First, the ecosystem approach requires the inclusion of ecosystems within 200 M in the research activities under the CAOF and thus cooperation with the Arctic coastal states would be necessary. Second, scientific activities in the CAO might demand access to coastal infrastructure, communication, and navigational facilities of at least one of the Arctic coastal states, as well as their support in extreme situations, including search and rescue and the treatment of the consequences of marine pollution (Vylegzhanin, Young, Berkman, 2020). Cooperation with Russia as a state with the longest coast in the Arctic (and thus the biggest EEZ and continental shelf in the Arctic) is the most beneficial because may potentially significantly expand the area of the research.

Japan and Russia can mutually benefit from the cooperation under the CAOF. Previously, Russia was reluctant to the engagement of non-Arctic states in Arctic affairs due to concerns about the revision of the legal status of the Northern Sea Route and expansion of the foreign influence in the Arctic (Tianming & Erokhin, 2021; Leksyutina, 2021). Due to the conflict in Ukraine, sanctions, and subsequent withdrawal of the western projects and technologies, Russia has changed its political vector towards partners in Asia (Tianming & Erokhin, 2021; Leksyutina, 2021; Konyshchev, Sergunin & Subbotin, 2017; Avkhadeev, 2020). This creates opportunities for Japan to strengthen its presence in the Arctic, tighten links with Russia and engage in mutually beneficial projects.

Russian scholars assert that Russia might benefit from cooperation by attracting Japanese investments and financing for the joint Arctic projects and getting access to Japanese technology (Streltsov, 2021; Doroshev, 2018; Voronenko & Greizik, 2019). Also, the expansion of scientific and economic ties with Japan will facilitate the diversification of Russian connections in Asia to avoid Chinese-oriented asymmetry in foreign policy (Zhyravel, 2016; Kireeva, 2019).

## **2.1 Possible Obstacles to Russian and Japanese Cooperation**

Some Russian scholars underline that Russia should carefully balance between the cooperation with Asian partners and ensuring its national interests (Doroshev, 2018; Rogovskoi, 2019; Zhyravel, 2016; Krasnopolskaya, 2019). The concerns relate to the increasing activity of China, Japan, and South Korea in the Arctic, including high-level official meetings (Vylegzhanin & Kienko, 2021). Yet it is recognized that evolving involvement of these states in Arctic affairs is a political reality and that western scholars do not consider the activity of Japan as alarming (Vylegzhanin & Kienko, 2021). Moreover, worries of Russian scholars are likely to refer to the projects involving resources under natural jurisdiction and the regulation of the Northern Sea Route rather than MSR on fisheries in the CAO.

Among obstacles that might impair Russian-Japanese cooperation in the Arctic, Russian scholars identify territorial dispute over the Kuril Islands and the absence of the peace agreement (Zhyravel, 2016; Beloglazov & Abdyzhalalova, 2020), Japanese pro-western position on the situation with Ukraine (Zhyravel, 2016; Doroshev, 2018), critique of the Russian environmental policy in the Arctic (Krasnopolskaya, 2019), and competing interests of Russia as a coastal state and Japan that represent “common interests” in the Arctic (Streltsov, 2017). Nevertheless, most scholars recognize that both states are open to science cooperation (Rumer, Sokolsky & Stronski, 2021). Such cooperation, apart from contributing to the scientific research and creation of a network of researchers (Binder 2016; Ackrén 2014), can facilitate creating bridges between the nations and attracting foreign investments (Ruffini 2016), assist in the development of infrastructure, the conclusion of international agreements (Rumer, Sokolsky & Stronski, 2021), and identify regulatory gaps (Berkman et al., 2017; Babin, 2021).

## **2.2 Existing Cooperation and Emerging Opportunities for the Cooperation**

The Russian government is actively promoting scientific research in the Arctic and has established a more systematic approach to Arctic affairs on the domestic level that should facilitate scientific cooperation. The Strategy of Development of the Arctic Zone of the Russian Federation and the Provision of National Security for the Period to 2035 (Strategy 2035)<sup>3</sup> and The Foundations of State Policy of the Russian Federation in the Arctic until

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<sup>3</sup> Russian Federation, The Strategy of Development of the Arctic Zone of the Russian Federation and the Provision of National Security for the Period to 2035, 26 October 2020.

2035<sup>4</sup> identify that the development of scientific research and international cooperation are the priorities of the state policy in the Arctic. Moreover, strengthening Arctic scientific cooperation is among the goals of the Russian Chairmanship in the Arctic Council for 2021-2023 (Roscongress, 2021). It demonstrates a presence of a strong political will in Russia to engage in scientific collaborations with other states.

The development of cooperation between Russia and Japan in respect to fisheries in the CAO can be established on the level of institutions and governments by the expansion of the scope of the existing scientific projects, by launching a new program under the CAO, or can be organized under the Agreement on Enhancing International Arctic Scientific Cooperation (Arctic Science Agreement).

The expansion of existing scientific cooperation or project is the easiest way to encourage a new level of cooperation. There already exist scientific connections between different Russian and Japanese universities and institutions. For example, Moscow State M.V. Lomonosov University and the University of Tokyo signed a Memorandum of Understanding<sup>5</sup> and organized Russian - Japanese Collaboration Seminars in 2013 and 2015, and the Students and Researchers Exchange Program in Sciences (STEPS) (Sedova, 2021). The Russian side proposes to extend the collaboration on sustainable development to the Arctic (Sedova, 2021). Under the Japanese 2015-2020 Arctic Challenge for Sustainability project (ArCS) the Japanese-Russian Arctic Research workshops were organized in 2014, 2017, and 2018 (Enomoto, 2021). The cooperation further continued under the 2020-2024 Arctic Challenge for Sustainability II projects (ArCS II). In 2019-2021, the Strategic International Collaborative Research Program (JST-SICORP) between Russia and Japan addressed the rational nature management in the Arctic. The 2021-2023 Climate change Resilience of Indigenous Socio-Ecological Systems project (RISE) addresses issues of the indigenous population (Gavrilyeva, 2021). All the mentioned projects can be expanded to include issues under the CAO.

The nurture of early-career researchers on the Arctic will also contribute to Arctic science and facilitate the convergence of Russia and Japan. In 2017-2021, Russian and

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<sup>4</sup> Russian Federation, The Foundations of State Policy of the Russian Federation in the Arctic until 2035, 5 March 2020. The Foundations of State Policy of the Russian Federation in the Arctic until 2035 also establish that the development of Arctic scientific research and international cooperation are the priorities of the Russian Arctic policy (paras. 10 (b) and (g); paras. 14 and 16).

<sup>5</sup> Memorandum of Understanding between the Nature Management Department of the Faculty of Geography of Moscow State M.V. Lomonosov University and the Department of Civil Engineering of the Graduate School of Engineering of the University of Tokyo, 2015.

Japanese Universities participated in the HARP Platform aimed to train specialists to promote economic cooperation and development of both countries (Saunavaara & Lomaeva, 2021). Further intensification of student scientific exchanges can be organized. For example, Japanese researchers and students can participate in the expeditions of the Russian Arctic Floating University that provide for the studying and networking opportunities for scientists, especially considering that a new Japanese icebreaker will be completed in five years and there is a need for a new generation of Arctic researchers in Japan (Saburov, 2021; Enomoto, 2021).

Russia and Japan have also promoted scientific cooperation on the governmental level. In addition to the Japan–Russia Science and Technology Cooperation Agreement (Japan–Russia STC Agreement), the states have started discussing cooperation in the Far East and the Arctic in 2021 (Arctic.ru, 2021). Aleksey Chekunkov, Minister for Russian Far East and the Arctic Development, invited Japanese companies and the scientific community to participate in the creation of a science and technology cluster on Russky Island (RG.ru, 2021).

### **2.3 Emerging Opportunities for the Russian Japanese Cooperation under the Agreement on Enhancing International Arctic Scientific Cooperation**

Scientific cooperation under the CAOFA may require a broader scope of scientific research than fisheries that would encompass the ecosystems of the CAO, including species living within the national jurisdiction of coastal states. Such cooperation is possible under the Arctic Scientific Agreement. Although Japan is not a Party to this Agreement, it may benefit from it in several ways. A non-Party “acting with or on behalf of any Party or Parties” can receive assistance as to the access to the territory of the Parties (Article 4), access to national civil research infrastructure in the Identified Geographic Areas (Article 5), and access to the research area for the fieldwork within the Identified Geographic Areas (Article 6 (1)) (Shibata, 2019). In addition, Article 17 (2) allows the Arctic states to undertake cooperation described in the Agreement with non-Parties and apply measures consistent with those described in the Agreement in cooperation with non-Parties. Existing Japan–Russia STC Agreement, a prospective agreement on the cooperation in the Far East and the Arctic, or a non-binding Memorandum of understanding can provide a legal basis for the implementation of Article 17 (2) towards Japan (Shibata, 2019).

Japan can make the most of new Russian initiatives enhancing scientific cooperation under the auspices of the Arctic Council/Arctic Science Agreement, such as the establishment

of the Coordination Committee for Arctic Scientific Activities, organizing competitions for scientists, setting up the Snowflake Station in the Russian Arctic, and creation of an international research database (Roscongress, 2021). The establishment of the Coordination Committee should assist in systematizing of Arctic research so that the efforts of researchers from different states are more effective, complementing rather than duplicating each other (Terashkevich, 2021). The Committee's mandate has yet to be determined, but the new body can hopefully facilitate scientific research between both Arctic and non-Arctic states and simplify the process of starting new scientific collaborations. Russia also suggests launching competitions for joint research and development projects based on common funding. It remains to be determined which countries and organizations can participate in joint programmes, finance them, or provide research sites (Kuklina, 2021). If such joint programmes are open for non-Arctic states, Japan can contribute with its funding, experts, and technology. The Snowflake International Arctic Station can become one of the main platforms for future scientific cooperation in the Arctic (SnowflakeIAS). Two sites of the station will be located on Yamal and in the Murmansk region and will start operating in 2024 thus providing for year-round operating Arctic sites. Another Russian initiative is to create an international database of the Arctic projects available to scientists and stakeholders for sharing data and establishing new partnerships (Roscongress, 2021). The Third Arctic Science Forum (ASM3), held by Iceland and Japan, could serve as the basis for the new project (Roscongress, 2021), so Japan can contribute with its expertise and experience.

Thus, the current political climate and regulatory framework provide Japan with many opportunities to further expand its involvement in Arctic affairs, build more connections with Russian scientists, and contribute to Arctic science.

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