

# Chapter 8

## (Research): The Sustainable Use of Marine Living Resources in the Central Arctic Ocean: The Role of Korea in the Context of International Legal Obligations



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**Abstract** Following the conclusion of the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, the Arctic and non-Arctic States, as well as Arctic Indigenous communities, are facing new challenges in managing the expected increase in human activities in the Central Arctic Ocean and in preserving and protecting the marine environment there. While the Agreement reflects a special responsibility in relation to the sustainable use of marine living resources in the Central Arctic Ocean that will be taken by all States Parties, certain distinctions between the Arctic and non-Arctic States in terms of their legal obligations still exist. Since the Arctic has no single international governance regime, it contains diverse and fragmented legal mechanisms that present questions to those States Parties. What is the spatial scope of the international law applicable to the Central Arctic Ocean? What are the legal obligations that the States Parties are bound to respect for ensuring the long-term conservation of marine living resources beyond national jurisdiction in the Arctic Ocean? Recognizing the role of non-Arctic States in the sustainable management of the Central Arctic Ocean, long-term sustainability would likely require the contribution of key non-Arctic States, such as Korea.

This article reviews key aspects of the evolving international regime relating to the Central Arctic Ocean. It also gives an overview of Korea's international legal obligations and domestic institutional foundations for the pursuing sustainability of the Arctic region.

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P. A. Berkman et al. (eds.), *Building Common Interests in the Arctic Ocean with Global Inclusion, Volume 2, Informed Decisionmaking for Sustainability*, [https://doi.org/10.1007/978-3-030-89312-5\\_8](https://doi.org/10.1007/978-3-030-89312-5_8)

## 8.1 Introduction

The oceans that cover about three-quarters of the surface of our planet play an integral role in supporting life. Considering that the oceans are fundamental to life on earth, providing natural and energy resources to billions of people who depend on marine areas for their livelihood, increased efforts and interventions to govern human activities are needed for the sustainable use of marine living resources at all levels.<sup>1</sup>

In recent years, human activities such as shipping, commercial fishing and seabed mining have expanded and intensified in marine areas beyond national jurisdiction, which comprise the water column of high seas as well as the sea-bed and ocean floor and subsoil thereof that are not part of the continental shelf of any State. This is true in the Arctic as it is in other parts of the world's ocean. While the receding ice in the Arctic Ocean due to climate change has paradoxically generated more economic opportunities for ocean use, the development of scientific research and governance regimes have struggled to keep pace with these increasing activities. The changing marine environmental conditions will certainly require effective fisheries management, proper assessments of the current status of the Arctic ecosystems and resources, as well as policies and institutional foundations with enforcement mechanisms.

In signing the 2008 Ilulissat Declaration, five Arctic coastal States reaffirmed their commitment to the "extensive international legal framework that applies to the Arctic Ocean." A more comprehensive global legal regime that builds on this framework and also accommodates the perspective of all concerned States is nevertheless likely to be needed for the high seas portion of the Central Arctic Ocean to follow up on the conclusion of a historic agreement to prevent unregulated fishing in that area.

The objective of this paper is to explore the legal obligations that States have in conserving marine living resources in the Central Arctic Ocean area under current international law, and the extent of responsibility that the Republic of Korea (hereinafter 'Korea') has in the international community, recognizing the urgent need for a sustainable future for the Arctic.

## 8.2 New Challenges Concerning the Central Arctic Ocean

### 8.2.1 *The Central Arctic Ocean as a Common Concern*

International environmental law developed from bilateralism to the protection of community interests as a body of law based on common concerns due to a raised

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<sup>1</sup>GOAL 14: Life below water, UN Environmental Programme, Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

awareness of the global nature of environmental problems.<sup>2</sup> The 1992 Rio Conference on Environment and Development highlighted the concept of “common concern” in relation to environmental issues; the concept has been incorporated in global regulatory treaties as a “common concern of mankind”, for example in the fields of climate change and biological diversity.<sup>3</sup> These global concerns make apparent the need for common action by all States. If successful protection measures are to be taken for the Earth as a whole, they would necessarily require global responsibility towards community interests.

The Arctic Ocean now faces new challenges due to climate change and accelerating human activities, including receding sea ice, increased sea surface temperatures, significantly greater freshwater run-off from melting glaciers, and increasing acidification. These phenomena will lead to a loss of marine biodiversity, destruction of the pristine ecosystem, and potentially unsustainable fishing in this area.<sup>4</sup> Given that the actions of people in all States have contributed to these circumstances in the sense that they are all contributing to climate change, it follows that all States also share the responsibility for addressing the problem, within the framework of international law that recognizes their common values and interests, even in the Central Arctic Ocean.

At the 1992 Rio Conference, States adopted Agenda 21, which sets forth commitments relating to the conservation and sustainable use of marine living resources both within and beyond national jurisdiction.<sup>5</sup> In the case of the Central Arctic Ocean—which includes both a high seas portion and adjacent areas under national jurisdiction—the pursuit of sustainability needs to be addressed in the context of common concerns balancing national and community interests. Although States or a group of States have certain common responsibilities with respect to the conservation and sustainable use of marine living resources in the Central Arctic Ocean, the specific rights and duties of coastal and non-coastal States may differ in some respects.

## 8.2.2 *State Responsibilities in the High Seas*

Under the legal zones recognized in UNCLOS, coastal States can claim jurisdiction over fish and seabed resources within 200 nautical miles from the baseline,

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<sup>2</sup>Bartenstein. K, 2015, The ‘Common Arctic’: Legal Analysis of Arctic & non-Arctic Political Discourses, *Arctic Yearbook*, pp.1.

<sup>3</sup>Preamble of the Convention on Climate Change, the Convention on Biological Diversity.

<sup>4</sup>IPCC, Global Warming of 1.5 °C of Global Warming on Natural and Human system.

<sup>5</sup>United Nations Sustainable Development, 1992, Agenda 21, Chapter Protection of the Oceans, All kinds of Seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

establishing an Exclusive Economic Zone (EEZ).<sup>6</sup> However, these States are not entitled to the same rights beyond the EEZ that is classified as high seas. The Central Arctic Ocean includes a large high seas area that is entirely surrounded by the EEZs of five Arctic coastal States.<sup>7</sup>

Part VII of UNCLOS ensures the rights of States to exercise freedoms of the high seas: freedom of navigation, fishing, laying submarine cables and pipelines, and conducting scientific research. These rights apply to the high seas portion of the Central Arctic Ocean as they apply elsewhere.<sup>8</sup> Even so, these freedoms shall be exercised by all States with due regard for the community interests and the rights as well as the interests of coastal States under the Convention.<sup>9</sup> In respect of “straddling fish stocks”—fish that occur in both the high seas and adjacent EEZs—Article 63(2) of the Convention lays down the obligation of the coastal States and States fishing on the high seas to seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of such stocks.

Whereas UNCLOS does not specifically prescribe States’ participation in such RFMOs, the 1995 UN Agreement on Straddling Stocks and Highly Migratory Stocks (UNFSA)<sup>10</sup> provides that States having a “real interest” in fisheries managed by an RFMO have the right to join that RFMO.<sup>11</sup> The provision does not clearly define the term “real interest,” however. The term may imply that flag States can claim to have a real interest in a particular fishery even if they have no history of participating that fishery but that want to fish in the future, or even if they have no intention to fish but want to participate in the RFMO solely for the purpose of safeguarding marine biodiversity.<sup>12,13</sup>

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<sup>6</sup>The United Nations Convention on the Law of the Sea of 10 December 1982 Part V. Exclusive Economic Zone, Article 55–75.

<sup>7</sup>Canada, Denmark, Norway, Russia, and the United States.

<sup>8</sup>UNCLOS Part VII. High Seas, Article 87 Freedom of the high seas.

<sup>9</sup>UNCLOS Article 116 Right to fish on the high seas.

<sup>10</sup>The United Nations Agreement for the Implementation of the Provision 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. [https://www.un.org/Depts/los/convention\\_agreements/convention\\_overview\\_fish\\_stocks.htm](https://www.un.org/Depts/los/convention_agreements/convention_overview_fish_stocks.htm)

<sup>11</sup>UNFSA Article 8(3). para 3. “State having a real interest in the fisheries concerned may become members of such organization or participants in such arrangement. The terms of participation in such organization or arrangement shall not preclude such States from membership or participation; nor shall they be applied in a manner which discriminates against any State or group of States having a real interest in the fisheries concerned.”

<sup>12</sup>Molenaar. E, 2000, The Concept of Real Interest and Other Aspects of Co-operation through Regional Fisheries Management Mechanisms, *International Journal of Marine and Coastal Law*, 15(4), pp.496.

<sup>13</sup>As noted above, Article 8(3) of the UNFSA also requires that the terms of participation in an RFMO shall not discriminate against any group of States. The Central Arctic Ocean Fisheries Agreement does not create distinctions between coastal State and non-coastal State Parties in terms of decisionmaking. In the future, however, arguments about such distinctions may arise in

The Central Arctic Ocean, like other parts of the world's ocean in which there is both a high seas portion and EEZs, is of legitimate concern to all States. There is no doubt that efforts by both Arctic coastal States and certain non-coastal States will be needed to ensure that marine living resources in the Central Arctic Ocean are conserved and managed sustainably, taking into account the interests of the international community and the legal obligations in accordance with the balance of rights and responsibilities reflected in UNCLOS and UNFSA.

### 8.3 The International Legal Regime for Marine Living Resources of the Central Arctic Ocean

#### 8.3.1 *Global Legal Framework of Marine Living Resources*

The sustainable use of marine living resources and their proper management are essential for the long-term conservation of these resources and biological diversity. The current international legal framework for marine living resources is comprised of bilateral and multilateral regional agreements as well as global conventions. These international law mechanisms apply to Arctic Ocean fisheries resources, including the legal obligations to cooperate to conserve the marine environment and marine natural resources both within and beyond national jurisdiction. The most relevant global legal regime relating to the fisheries management in the Central Arctic Ocean includes, but is not limited to, the 1982 UNCLOS,<sup>14</sup> the 1982 Convention on Future Multilateral Cooperation in Northeast Atlantic Fisheries,<sup>15</sup> the 1992 UNCBD, the 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, the 1995 UN UNFSA, and the 2018 Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean.<sup>16</sup>

UNCLOS established a fundamental legal framework for the conservation of marine living resources under Articles 61 to 67 and Articles 116 to 119 that are relevant to the Central Arctic Ocean. These provisions recognize the aims of optimum utilization and conservation of marine living resources, including for

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considering whether and how to allow commercial fishing to start in the high seas area of the Central Arctic Ocean. Similar arguments may also arise concerning the question of whether CAOFA States Parties should have a privileged role in the development of additional resource management measures for the Central Arctic Ocean. See Balton, D, What will the BBNJ Agreement mean for the Arctic Fisheries Agreement?

<sup>14</sup>UNCLOS Part VII. Section 2. Conservation and Management of the Living Resources of the High Seas, Article 116–119.

<sup>15</sup>The competence area of the NEAFC Convention is limited to a small amount of the Central Arctic Ocean and there is yet no precedent to adopt management measures in this area. See also NEAFC Convention Article 1, a) “*The Convention Area*”.

<sup>16</sup>The Agreement entered into force on 25 June 2021.

stocks occurring both within EEZs and the high seas. It also provides the legal basis to take measures necessary for the management of such resources of the high seas. Articles 117–118 further require States to cooperate with other States and to enter into negotiations with a view to taking such measures for their nationals that may be necessary for the conservation of the living resources of the high seas in the form of establishing RFMOs. However these provisions do not offer detailed rules on how to manage such fisheries resources, nor do they give any specific guidance concerning the cooperation of States.<sup>17</sup> Additionally, vague language such as “best available scientific evidence” does not have much practical effect with respect to fisheries resource management.<sup>18,19</sup>

The fact that UNCLOS only provides general legal obligations for States to cooperate in the management of marine living resources may have contributed to the lack of political will among States to take appropriate conservation measures and, therefore, to the failure to achieve the sustainable use of marine living resources. Since the adoption of UNCLOS, however, new approaches in international law and practice based on the “precautionary approach” or “precautionary principle” have arisen.<sup>20</sup> It remains to be seen whether and to what extent these approaches can contribute to resolving the problems under the current international legal framework.

### 8.3.2 *Precautionary Principle*

The precautionary principle (or approach) aims to guide the application of international environmental law and the taking of other international legal acts where there is scientific uncertainty.<sup>21</sup> While the precise status and best formulation of this principle have been debated, the international community has mostly embraced it as a general principle of international law. At the most general level, it means that States should take action or adopt decisions based upon careful foresight when their activities may be expected to cause damage to the environment.<sup>22</sup> Implementation of the precautionary principle may nevertheless differ as each State seeks to apply it in accordance its own legal context and culture.

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<sup>17</sup>Tanaka. Y, 2011, *The Changing Approaches to Conservation of Marine Living Resources in International Law*, Max Plank Institut für ausländisches öffentliches Recht und Völkerrecht, pp.300.

<sup>18</sup>UNCLOS Article 119 Conservation of the living resources of the high seas; State shall take measures which are designed, on the best scientific evidence available to the State concerned.

<sup>19</sup>Hassan. D, 2009, *Climate Change and the Current Regimes of Arctic Fisheries Resources Management: An Evaluation*, *Journal of Maritime Law & Commerce*, Vol. 40, No. 4, pp.524.

<sup>20</sup>Tanaka. Y, 2011, *supra* note 17, pp.293.

<sup>21</sup>Sands. P, 2003, *Principle of International Environmental Law*, Cambridge University Press, pp.267.

<sup>22</sup>*Id.* pp.267–272.

In the case of international fisheries law, the UNFSA enshrined the precautionary approach in Article 6(2). It requires that “States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures”, obligating States to apply the precautionary principle widely in the conservation and management of straddling and highly migratory fish stocks.<sup>23</sup>

Under Part XII of UNCLOS, the general obligations of States to protect and preserve the marine environment also implies the precautionary approach. In the 1999 *Southern Bluefin Tuna Cases*,<sup>24</sup> the decision of the International Tribunal for the Law of the Sea (ITLOS) called upon the parties to that case to exercise caution in managing the stock of tuna in question in light of the scientific uncertainty concerning the effects of fishing for the stock. In particular, ITLOS justified its grant of provisional measures pending final resolution of the dispute by citing the need not to hinder or postpone the taking of measures necessary for the conservation of the fish stocks. This version of “precaution” does not necessarily require a State to prove that environmental harm is certain or even likely; the evidence that such harm is foreseeable is enough to trigger an obligation for States to act.<sup>25</sup>

Although States have introduced versions of the precautionary principle (or approach) in a variety of international agreements, and although there is now considerable State practice in implementing it, the precise meaning of the precautionary approach is still evolving.<sup>26</sup> International fisheries law is a prime example of an area in which States have introduced the precautionary principle, but its specific formulation and use depends on the individual case as framed in the applicable fisheries agreement.<sup>27</sup>

### 8.3.3 2018 Central Arctic Ocean Fisheries Agreement

The 2018 Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, signed by nine States<sup>28</sup> and the European Union, can be seen as an

<sup>23</sup> See also Annex II Guidance for the Application of Precautionary Reference Points in Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

<sup>24</sup> ITLOS, 1999, *Southern Bluefin Tuna Cases (provisional measures)* (Australia v. Japan; New Zealand v. Japan).

<sup>25</sup> P. W. Birnie, A. E. Boyle and C. Redgwell, 2009, *International Law & Environment*, Oxford University Press, pp.163.

<sup>26</sup> Sands, P, 2003, *supra* note 21, pp.279.

<sup>27</sup> Schatz, V, Proelss, A, and Liu, N, 2019, The 2018 Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean: A Critical Analysis, *The International Journal of Marine and Coastal Law* 34, pp.25.

<sup>28</sup> Canada, China, Denmark in respect of the Faroe Islands and Greenland, Iceland, Japan, South Korea, Norway, Russia, and the United States.

application of the precautionary approach embedded in a fisheries agreement.<sup>29</sup> Although there is no commercial fishing currently occurring and unlikely to become viable in the high seas portion of the Central Arctic Ocean in the near future, fish species may move northward and become accessible due to the melting sea ice.<sup>30</sup> On this account, the Agreement calls for precautionary conservation and management measures to ensure the sustainable use of fish stocks as part of a long-term strategy that States exercise caution in applying freedom of fishing in areas of the high seas.<sup>31,32</sup>

The Agreement fills a legal lacuna in the fisheries regime in the high seas portion of the Central Arctic Ocean. It imposes a 16-year moratorium on the start of commercial fishing, during which time the States Parties may learn more about the impacts of climate change and thus should be better able to manage any fishing effectively. The Agreement will be extended for additional five-year increments unless any State Party objects to such extension.<sup>33</sup> In this context, the moratorium on high seas fishing can be seen as a highly precautionary measure in support of the long-term sustainable use of marine living resources in the Central Arctic Ocean. In the absence of scientific evidence with which to manage commercial fishing in this area, the States involved agreed not to allow commercial fishing for at least 16 years, during which they will seek to obtain such evidence.

In a nutshell, the Agreement requires the States Parties undertake two basic commitments: to prohibit commercial fishing in the “Agreement Area” and to establish a Joint Program of Scientific Research and Monitoring. Proper implementation of the Agreement will primarily depend on the political will of all States Parties and how well they can constrain national interests and balance those with common interests they share concerning the Central Arctic Ocean.<sup>34</sup> The collective capacity of both Arctic coastal and non-Arctic States Parties will greatly advance the increasing knowledge of such marine ecosystems and management of the Central Arctic Ocean area. In the implementation of the Joint Program envisaged under the Agreement, contribution and commitment from non-Arctic States Parties to promote scientific knowledge will also help in developing a data sharing protocol, which is to include relevant scientific-technical specifications.<sup>35</sup>

<sup>29</sup>European Commission, the Agreement to prevent unregulated high seas fisheries in the Central Arctic Ocean <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2018:453:FIN>

<sup>30</sup>Heidar. T, 2017, The Legal Framework for High Seas Fisheries in the Central Arctic Ocean, chap. 6., *International Marine Economy: Law and Policy*, Koninklijke Brill NV, Leiden, pp.179.

<sup>31</sup>Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean 2018, preamble, para 11–12, Article 2.

<sup>32</sup>Vylegzhanin. A, Young. O, and Berkman. P, 2020, The Central Arctic Ocean Fisheries Agreement as an Element in the Evolving Arctic Ocean Governance Complex, *Marine Policy*, pp.6.

<sup>33</sup>Balton. D, 2018, The Arctic Fisheries Agreement: Looking to 2030 and Beyond, *The Arctic in World Affairs*, Korea Maritime Institute and East-West Center, pp.88.

<sup>34</sup>Schatz. V, Proelss. A, and Liu. N, *supra* note 27, pp.3.

<sup>35</sup>Chairs’ Statement: 5th Meeting of Scientific Experts on Fish Stocks of the Central Arctic Ocean, Ottawa, Canada, October 24–26, 2017.



## 8.4 The Role of Korea in the Arctic

### 8.4.1 *Legal Obligations of Korea under International Frameworks*

As noted above, the Central Arctic Ocean is subject to the same global legal framework as other parts of the world's ocean.<sup>36</sup> UNCLOS provisions concerning fisheries, conservation and management of marine living resources, the outer limits of the continental shelf, navigation rights, the conduct of marine scientific research and ice-covered areas<sup>37</sup> all apply to the Central Arctic Ocean. The 2018 Central Arctic Ocean Fisheries Agreement complements the general provisions of the Convention, particularly in the matter of conservation of the marine environment. Hence, the international legal obligations that Korea undertakes concerning the Central Arctic Ocean include responsibilities under international conventions including UNCLOS and the specific responsibilities it will have as a State Party to the 2018 agreement.

Recognizing that Agenda 21 calls upon States to take actions in accordance with international law and commit themselves to the conservation and sustainable use of marine living resources on the high seas, Korea must comply with the provisions of UNCLOS and CBD regarding the duty to cooperate with other States Parties. Article 5 of the CBD obligates States to work "directly or where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction and on other matters of mutual interest for the conservation and sustainable use of biological diversity." UNCLOS Articles 116–120 requires States to adopt measures for the conservation of the living resources of the high seas with respect to their nationals and vessels and to cooperate with other States in taking such measures. Article 7 of the UNFSA builds on these general obligations in the context of straddling and highly migratory fish stocks, with the aim of achieving compatible measures for those stocks in areas both within and beyond national jurisdiction. Article 6 and Annex II of the UNFSA also require the application of the precautionary approach in adopting conservation and management measures for such stocks.

The 2015 Oslo Declaration, adopted by the five Central Arctic Ocean coastal States, recognized the interests of other States in relation to potential fisheries in the high seas portion of the Central Arctic Ocean. In 2016, Korea, along with China, Japan, Iceland, and the EU, joined the negotiations that produced the Central Arctic Ocean Fisheries Agreement. Following the successful conclusion of those negotiations, the Republic of Korea completed the ratification process for the Agreement

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<sup>36</sup>Heidar, T, *supra* note 30, pp.181.

<sup>37</sup>Article 234 Ice-covered areas; coastal States have the right to adopt laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the EEZ.

in October 2019.<sup>38</sup> Korea became the sixth Signatory to complete the ratification of the Agreement after Canada, the EU, the U.S, Japan, and Russia. To this end, Korea has agreed not to authorize its vessels to engage in high seas fishing in the Central Arctic Ocean except in accordance with the limited exceptions provided in the Agreement, and to participate in developing and implementing the Joint Program of Scientific Research and Monitoring.

#### 8.4.2 *The Engagement of Korea in the Arctic*

After serving as an ad hoc observer since 2008, Korea was admitted to the Arctic Council as one of the non-Arctic State observers in 2013 and has been actively working with different countries, stakeholders, and the Permanent Participants (Arctic Indigenous peoples) to contribute to the Arctic Council's goals of promoting sustainable development and environmental protection in the Arctic. Despite its distance from the Arctic, Korea has been seeking to better understand the issues surrounding the Arctic and to become an important player in the Arctic. Such Korean efforts can be found both nationally and internationally.

Korea took its first significant step in Arctic scientific research and projects by establishing the Korea Arctic Science Council (KASCO) in 2001. With KASCO as a cornerstone, Korea began its investment in crucial assets for its Arctic scientific research by opening its first research station on Svalbard, and became one of the few countries to own an ice-breaking research vessel. Korea has been conducting its Arctic ship-based research in the part of the Central Arctic Ocean in the vicinity of the Chukchi and East Siberian Seas on a yearly basis to understand the marine environment in the Central Arctic Ocean, and to predict its future changes.<sup>39</sup> Considering that the Central Arctic Ocean research will need icebreakers to conduct surveys in ice-covered water, the scientific research capacity of Korea should be considered significant in this regard.<sup>40</sup>

Korea also has been undertaking polar scientific research in collaboration with many of the Arctic States and has been involved in formal dialogues on Central Arctic Ocean issues with China, Japan, and non-government experts supported by various international institutions starting from 2015.<sup>41</sup> In parallel with such efforts, Korea will contribute to creating opportunities for securing scientific information through the joint research and monitoring program in the Central Arctic Ocean with

<sup>38</sup> MOFA, ROK completes domestic ratification procedure for Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean. [http://www.mofa.go.kr/eng/brd/m\\_5676/view.do](http://www.mofa.go.kr/eng/brd/m_5676/view.do)

<sup>39</sup> Korea Polar Research Institute (KOPRI), Korea-Arctic Ocean Observing System (K-AOOS, 2016–2020) funded by the Korean Ministry of Oceans and Fisheries.

<sup>40</sup> Kim, J and Kim, J, 2017, Korean Perspectives, *The Arctic in World Affairs*, Korea Maritime Institute and East-West Center, pp. 289.

<sup>41</sup> Preventing Unregulated Commercial Fishing in the Central Arctic Ocean: A compilation of reports from meetings of experts in Shanghai, Incheon & Sapporo, March 2017.

such science leadership and capacity based on domestic policy and legal foundations.

### 8.4.3 *The Domestic Institutional Foundation of Korea Arctic Policy*

Korea established its first Arctic Policy Master Plan (2013–2017) with the vision of contributing to the sustainable future of the Arctic soon after it achieved observer status in the Arctic Council. Seven different ministries<sup>42</sup> collaborated to create this Plan, a blueprint for Korea's Arctic vision that includes 31 tasks in international cooperation, scientific investigation, Arctic business, legal and institutional fields.<sup>43</sup> However, there was a knowledge gap between government organizations and a lack of domestic institutional foundation to support scientific activities in the Arctic. With lessons learned from the first period, Korea announced the second Arctic Policy Master Plan (2018–2022). The newly adopted second Plan set the goal of long-term Arctic policy development and strengthening Korea's capacity in scientific research activities that includes building a second ice-breaking research vessel.<sup>44</sup>

To support such activities in the Arctic, both Plans have expanded Korea's domestic institutional foundations. Still, Korea has additional steps to take. For example, there is no Korean legislation for the Arctic comparable to its *Act on Activities in the Antarctic Area and the Protection of Antarctic Environment* to contribute to the protection of the Antarctic environment and the development of science and technology by providing for matters necessary for activities in Antarctica.<sup>45</sup> Moreover, although Korea has passed a *Framework Act on Marine Fisheries Development*<sup>46</sup> that supports plans required for the installation of a marine research station in specific areas including the South and the North pole, and for marine

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<sup>42</sup>Ministry of Oceans and Fisheries (MOF), Ministry of Foreign Affairs (MOFA), Ministry of Science, ICT and Future Planning (MSIP), Ministry of Trade, Industry and Energy (MOTIE), Ministry of Environment (MOE), Ministry of Land, Infrastructure and Transport (MOLIT), Korea Meteorological Administration (KMA).

<sup>43</sup>Jin, D, Seo, W & Lee, S, 2017, Arctic Policy of the Republic of Korea, 22 *Ocean & Coastal L.J.*, pp.90.

<sup>44</sup>Kwon, S, 2018, Korea's Arctic Policy and Activities, *The Arctic in World Affairs*, Korea Maritime Institute and East-West Center, pp.50.

<sup>45</sup>Korea Legislation Research Institute, ACT ON ACTIVITIES IN THE ANTARCTIC AREA (2004), [http://elaw.klri.re.kr/kor\\_service/lawView.do?hseq=46891&lang=ENG](http://elaw.klri.re.kr/kor_service/lawView.do?hseq=46891&lang=ENG)

<sup>46</sup>Korea Legislation Research Institute, FRAMEWORK ACT ON MARINE FISHERY DEVELOPMENT (2017), [http://elaw.klri.re.kr/kor\\_service/lawView.do?hseq=43304&lang=ENG](http://elaw.klri.re.kr/kor_service/lawView.do?hseq=43304&lang=ENG)

science survey and research, the law does not cover the overall Arctic activities.<sup>47</sup> To fill this legal gap, Korea is planning to enact the *Polar Activities Promotion Act* (The Act passed into law, and became effective on 14 October 2021), and related enforcement decrees that will extend to both the Arctic and Antarctic research, development and conservation activities and that would likely apply to the Central Arctic Ocean area.<sup>48</sup>

## 8.5 Conclusion

Commercial fishing is not currently taking place in the high seas portion of the Central Arctic Ocean. The Arctic coastal and non-coastal States nevertheless have the common interests to pursue the conservation and the sustainable use of marine living resources both within and beyond national jurisdiction, including in the Central Arctic Ocean. The advancement of such common interests needs to be undertaken in the context of international law, which enables all States to take action within a common legal framework.

While the international legal framework for marine living resources, which includes the 1982 UNCLOS and other instruments discussed above, set forth the obligations of States to cooperate in Arctic fisheries resources management, they are not yet sufficient for conservation and for preventing the overfishing of species in the Central Arctic Ocean. The provisions of such instruments give no specific guidance to States in establishing subregional or regional fisheries organizations and in judging breaches of international obligations. Existing organizations such as the North-East Atlantic Fisheries Commission (NEAFC) cover a small part of the high seas portion in the north of Greenland and Svalbard, but neither actively address the issues of proper management of the marine living resource in the Central Arctic Ocean. Those organizations also do not include distant water fishing States.

In filling the legal gap with a precautionary approach, the 2018 Central Arctic Ocean Fisheries Agreement imposed a moratorium on the start of commercial fishing in the Central Arctic Ocean until there is a better understanding of the ecosystem in the Agreement Area and a more comprehensive fisheries management regime in place. However, it still leaves open questions as to the extent to which State Parties can constrain their national interests and behavior in the high seas of the Central Arctic Ocean in terms of international legal obligations. The questions may overlap with questions that are likely to arise under the envisioned BBNJ

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<sup>47</sup> Article 20 Installation of Marine Research Station, and Survey and Research; The Government shall devise and implement support plans required for the installation of a marine research station in a specific area, such as the South Pole and the North Pole, and for the advancement of marine science survey and research.

<sup>48</sup> Korea National Assembly Agricultural and Fisheries Committee, 2017, The examination report on Act on Promotion of Polar Activities (KOREAN), [http://likms.assembly.go.kr/bill/billDetail.do?billId=PRC\\_K1A6R1H2S0Z1P1G712W7D0C9N8D2G9](http://likms.assembly.go.kr/bill/billDetail.do?billId=PRC_K1A6R1H2S0Z1P1G712W7D0C9N8D2G9)

Agreement. Considering the Central Arctic Ocean as of common concern, it inevitably entails a reaffirmation of both the primary responsibility of flag States with respect to their vessels that fish on the high seas and a responsibility to conserve the marine environment over the Central Arctic Ocean. Consequently, it largely depends on the political will of each State Party to balance its own interests and those of the international community.

Korea began engaging significantly in Arctic affairs other than scientific research less than a decade ago. Despite its short presence in the Arctic, Korea has participated in various working group projects under the auspices of the Arctic Council and has undertaken bilateral science programs with many of the Arctic States. Korea's rights and responsibilities under international law in relation to the Central Arctic are to be respected by the other States involved, in particular as a State Party to the 2018 Central Arctic Ocean Fisheries Agreement. As one of the State Parties to the Agreement, Korea is planning to strengthen its scientific research capacity for the implementation plans in parallel with supporting and expanding domestic institutional foundations. Korea will be committed to addressing challenging transboundary issues of the Arctic Ocean and to promoting science diplomacy along with a national political commitment which is addressed in both of its Arctic Policy Master Plans.

**Acknowledgements** We would like to express our sincere appreciation to Dr. Hyoung Chul Shin (KOPRI) for his encouragement and insights of Korean scientific leadership. We also like to extend our gratitude to Ambassador David Balton and the reviewers for valuable comments on this paper.

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