

Establishing marine protected areas in the southern ocean, lessons for the BBNJ agreement

Nengye Liu

Yong Pung How School of Law, Singapore Management University, Singapore

Published in Marine Policy (2024) 165, 106216. DOI: 10.1016/j.marpol.2024.106216

Abstract: This paper first gives a brief overview of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)'s struggle to establish Antarctic Marine Protected Areas (MPAs). The paper then addresses the question: what lessons can countries learn from CCAMLR's experience in establishing high seas MPAs under the Biodiversity in Areas Beyond National Jurisdiction (BBNJ) Agreement? The paper finds that the final text of the BBNJ Agreement did largely reflect CCAMLR's experience when it comes to MPAs. This is particularly so with respect to 1) clarification of the relationship between conservation and use; 2) the interpretation and application of a science-based precautionary approach; and 3) consensus-based decision-making process. The paper concludes that the insights CCAMLR provides for navigating geopolitical tensions between major powers is an important reference for the future operation of the BBNJ Agreement.

Keywords: Antarctica, BBNJ, CCAMLR, High Seas

1. Introduction

On 19 June 2023, the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement) [1] was finally adopted. This marked the cumulation of decades of discussions, Preparatory Committee meetings, [2] and six rounds of intergovernmental negotiations between 2018 and 2023. [3] One of four thematic areas of the BBNJ negotiation is area-based management tools (ABMTs), including marine protected areas (MPAs). As a result, the BBNJ Agreement defines an MPA as

“a geographically defined marine area that is designated and managed to achieve specific long-term biological diversity conservation objectives and may allow, where appropriate, sustainable use provided it is consistent with the conservation objectives.” [4]

Part III of the BBNJ Agreement is devoted to “Measures such as Area-based Management Tools, Including Marine Protected Areas”. The BBNJ Agreement was opened for signature by all States and regional economic integration organizations on 20 September 2023. At the time of writing, there are 90 signatories and five contracting parties (Belize, Chile, Monaco, Palau and Seychelles), including major powers such as China, the European Union (EU) and the United States. [5] Once the BBNJ Agreement enters into force, [6] the Agreement will

provide a solid legal basis for the establishment of MPAs on the high seas - which cover more than 60% of the world's oceans.

The process of establishing MPAs in areas beyond national jurisdiction has a long history, especially in the Northeast Atlantic and the Southern Ocean. The Commission for the Conservation of the Antarctic Marine Living Resources (CCAMLR), the management arm of the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CAMLR Convention), [7] is at the forefront of the establishment of high seas MPAs.

CCAMLR, established in 1982, applies to “the Antarctic marine living resources of the area south of 60° South latitude and to the Antarctic marine living resources of the area between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem”. [8] CCAMLR's process of establishing MPAs in the Southern Ocean has, however, entered a stalemate. Over the past decade, apart from occasional success, e.g., the entry into force of the Ross Sea region MPA in 2017, [9] there are three MPA proposals pending approval by CCAMLR. [10] The proposals have been unsuccessful, to date, because of opposition from the People's Republic of China (PRC) and the Russian Federation.

The author would like to thank Prof Michelle Lim and two anonymous reviewers for their extensive and valuable comments on an earlier draft. The author also acknowledges funding support by Australian Research Council Discovery Project (2019–2023) and Chiang Ching-kuo Foundation for International Scholarly Exchange (2021–2024).

Although CCAMLR is a small organization with 27 Members and 10 Acceding States, [11] its MPA process may reveal both “potential pathways and impediments” for the BBNJ Agreement [12] when it comes to the establishment of high seas MPAs. This paper aims to answer a key question: what lessons countries can learn from CCAMLR’s experience in establishing high seas MPAs under the BBNJ Agreement. It first gives a brief overview of CCAMLR’s struggle to establish Antarctic MPAs. The paper then examines four areas where the CCAMLR experience may inspire countries to advance marine conservation under the BBNJ Agreement. These four areas are 1) relationship between use and conservation; 2) science-based precautionary approach; 3) consensus decision-making process; and 4) navigating geopolitical tensions.

2. CCAMLR’s struggle in establishing Southern Ocean MPAs

The Southern Ocean is a vibrant marine ecosystem. The keystone of this Antarctic marine system is krill (*Euphausia superba*). The combined weight of this tiny species is estimated to amount to between 300 and 500 million tonnes - the largest biomass of any wild animal on the planet. [13]

There are existing territorial claims to the Antarctic by seven countries – Australia, Argentina, Chile, France, Norway, New Zealand, and the United Kingdom. The Antarctic Treaty was adopted on 1 December 1959. [14] The Treaty was originally signed by the above claimants, together with Belgium, Japan, South Africa, the Soviet Union, and the United States. The Antarctic Treaty takes a bifocal approach, [15] which allows claimants to maintain their legal claim to territory while cooperating with other States to promote science and conservation within the Antarctic Treaty System (ATS). [16]

After the Second World War, the Soviet Union was fast expanding its distant water fishing activities as part of exerting global influence. [17] The Soviet Union was the first country to start krill fishing in the Southern Ocean in 1962, followed by the United Kingdom and Japan. [18] By 1977, the Soviet Union fishing vessels caught 105,049 tons of krill. This accounts for 85% of total catch in Antarctica. [19] At the time, being prior to CAMLR Convention, Southern Ocean fisheries were not specifically covered by the ATS. Against this backdrop, CCAMLR was established as a response to the expansion of krill fishing in Antarctic waters. [20] The Consultative Parties of the Antarctic Treaty started informal conversation on the conservation of marine living resources in the Southern Ocean at the seventh meeting in 1973. At the eighth Antarctic Treaty Consultative Meeting (ATCM) in Oslo, 1975, Recommendation VIII-10 urged governments to develop “effective measures for the conservation of marine living resources in the Treaty Area” and included the subject of Antarctic marine living resources on the agenda for the Ninth Consultative Meeting. [21] In 1977, the Ninth ATCM in London adopted Recommendation IX-2, which set up interim guidelines and proclaimed an intention to establish definitive conservation regime for Antarctic marine living resources before the end of 1978. [22] There were 13 countries (Argentina, Australia, Belgium, Chile, France, Japan, Norway, New Zealand, Poland, South Africa, Soviet Union, the United Kingdom and the United States) involved in the Special ATCMs held in Canberra (27 February – 16 March 1978) and Buenos Aires (17 – 28 July 1978) that negotiated the CAMLR Convention.

For many years, CCAMLR has been widely regarded as a successful conservation body for fisheries management. [23] It is a pioneering organization that applies ecosystem-based, rather than single species management approach for fisheries. The basic idea behind conservation is that “existing natural ecological relationship between harvested, dependent, and related populations of resources must be maintained.” [24] The harvest quota for krill catch does not just depend on sustainable reproduction level of krill population, but also on the relationship between krill and other associate species, such as seals and whales. In 2009, the South Orkney Islands Southern Shelf MPA, [25] which was proposed by the United Kingdom, was adopted by CCAMLR. This is the first high seas no-take MPA in the world. Two more MPA proposals in the

Ross Sea (proposed by New Zealand and the United States) and the East Antarctic (proposed by Australia, France and the European Union) were presented to CCAMLR in 2012, followed by proposals in Domain 1 (Western Antarctic Peninsula and South Scotia Arc) and Weddell Sea Region.

China is one of the newest members of CCAMLR, having joined the Commission in 2007. China and Russia vocally opposed all MPA proposals since 2012. China changed its position to support the establishment of the Ross Sea region MPA (RSrMPA), [26] following the 7th U.S.-China Strategic and Economic Dialogue in 2015 [27] and the Obama – Xi Summit during the Hang Zhou G20 Summit in 2016. [28] Nevertheless, even though the RSrMPA entered into force in 2017 with concessions from the original proposal, [29] China continues to argue that a Research and Monitoring Program (RMP) must be set up as a prerequisite for establishing new MPAs. [30] China also recommends that a RMP must be developed with baseline data collated at the beginning of a MPA proposal process. [31]

There are two main reasons behind China and Russia’s opposition against MPA proposals. The first is the economic potential of the Southern Ocean for China’s expanding distant water fishing industry, which is now the largest in the world. [32] Following the collapse of the Soviet Union in 1991, the Russian Antarctic krill fishing fleet is long gone. In the meantime, China has become very interested in expanding distant water fishing in Antarctica and has become the second largest krill fishing state in the Southern Ocean, only after Norway since 2020. [33] The other reason is geopolitical and can be linked to China and Russia’s soured relationship with the United States in recent years. [34] As decision-making in CCAMLR is consensus based, [35] if there is opposition from any member state, no proposal can be approved by the Commission. The deadlock has continued for the last seven years. [36]

3. Lessons for high seas MPAs under the BBNJ agreement

3.1. Relationship between conservation and use

Like any treaty negotiation, CCAMLR was established as a “compromise among competing factions with regard to several issues and many other important considerations” [37] among those countries involved. Article II (2) of the CAMLR Convention provides that “for the purpose of this Convention, the term “conservation” includes rational use. Frank argues that this represents the balance between Antarctic fishing states – then Japan and the Soviet Union, and conservationist States, particularly the U.S. on the management of marine living resources during the negotiation. [38] The establishment of no-take MPAs in CCAMLR waters could be seen as an evolutionary interpretation of the relationship between conservation and rational use. Therefore, it is not a surprise that many fishing states were originally opposed to the idea of no-take MPAs. When the RSrMPA proposal was first presented to CCAMLR in 2012, Latin American (Brazil, Chile, and Argentina) and East Asian States (China, Japan, and Korea) as well as Russia and Ukraine objected to it. Although the narrative quickly shifted towards conservation for most CCAMLR members, the core issue of how to interpret the relationship between conservation and rational use remains.

Press et.al., argue that:

“Article II does not establish that ‘conservation’ and ‘rational use’ are either competing or equal objectives in the implementation of the Convention. Rather, Article II (1) establishes a single objective: the conservation of Antarctic marine living resources. Article II (2) provides that considerations of rational use can be included in the consideration of the broader conservation objective.” [39]

This is a widely held position among CCAMLR members who are supportive of MPAs. Nevertheless, China and Russia do not hold the same view. For example, the Chinese delegation argues that the establishment of no-take Antarctic MPAs lacks legal basis. They reason that

there should be a balance between conservation and rational use, and commercial fishing cannot be prohibited. [40] For over a decade, the Chinese delegation has submitted a number of working papers [41] and made several statements on MPAs. [42] In essence, China believes that rational use must be kept as an objective of CCAMLR that is equal to conservation goals. [43]

The relationship between conservation and sustainable use is not a new issue when it comes to MPAs. The International Whaling Commission (IWC) had a similar debate back to the 1980 s. It was stated in the Preamble of the 1948 International Convention for the Regulation of Whaling (ICRW) that

“It is in the common interest to achieve the optimum level of whale stocks as rapidly as possible without causing widespread economic and nutritional distress. In the course of achieving these objectives, whaling operations should be confined to those species best able to sustain exploitation in order to give an interval for recovery to certain species of whales now depleted in numbers.” [44]

Nevertheless, the IWC adopted a complete ban on commercial whaling in 1982. [45] This raised oppositions from several whaling States, especially Japan and Norway, which questioned the shift of ICRW from a resource management treaty to a preservation-oriented agreement. [46]

It is noted that the UNCLOS talks about protection and preservation of marine environment on the one hand, and conservation and sustainable use of marine living resources on the other. [47] The BBNJ Agreement is an implementing agreement of the UNCLOS, [48] which was negotiated “in response to unforeseen and new challenges in the law of the sea”. [49] It has further clarified the relationship between conservation and sustainable use when it comes to MPAs. The BBNJ Agreement’s definition of MPA made clear that sustainable use may be allowed in an MPA, which must be subject to conservation objectives. Moreover, the BBNJ Agreement desires to

“act as stewards of the ocean in areas beyond national jurisdiction on behalf of present and future generations by protecting, caring for and ensuring responsible use of the marine environment, maintaining the integrity of ocean ecosystems and conserving the inherent value of biological diversity of areas beyond national jurisdiction.” [50]

It is fair to say that at this juncture of history, the international community has to large extent agreed that the BBNJ Agreement is a conservation oriented regulatory framework governing sustainable use of the high seas. [51] The first preambular paragraph of the BBNJ Agreement recalls Article 192 of the UNCLOS that “States have the obligation to protect and preserve the marine environment.” Moreover, it is recognized that there is “the need to address biological diversity loss and degradation of ecosystems of the ocean, due, in particular, to climate change impact.....pollution, and unsustainable use”. [52] In the future, when countries are going to put MPA proposals under the BBNJ Agreement, it would be harder for other countries to make arguments similar to those proposed in CCAMLR meetings that sustainable use should be treated as equal as conservation. That being said, the BBNJ Agreement does not cover fisheries. It is provided by Article 5 (2) of the BBNJ Agreement that

“This Agreement shall be interpreted and applied in a manner that does not undermine relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies and that promotes coherence and coordination with those instruments, frameworks and bodies.”

The BBNJ Conference of Parties (COP) still needs to work with Regional Fisheries Management Organizations/Arrangements (RFMO/As) to make sure sustainable use, especially distant water fishing, will be compatible with high seas MPAs’ conservation goals.

This section has discussed the tensions in negotiations as it relates to the twin goals of conservation and sustainable use in the establishment

of high seas MPAs. A further point of contention remains the interpretation of precaution. It is to this, we now turn.

3.2. Science-based precautionary approach

Science is commonly regarded as currency for participating in Antarctic governance. [53] The Antarctic Treaty contracting parties were convinced that “the establishment of a firm foundation for the continuation and development of such cooperation on the basis of freedom of scientific investigation in Antarctica ... accords with the interests of science and the progress of all mankind”. [54] Article II of the Antarctic Treaty specifically provides that “freedom of scientific investigation in Antarctica and cooperation toward that end” [55] shall be pursued based on the Treaty.

American and British scientists played a significant role in entrenching the idea that the Antarctic marine ecosystem demanded strong protection as a whole during the negotiation of the CAMLR Convention. [56] In 1975, the Scientific Committee on Antarctic Research (SCAR) undertook the Biological Investigation of Marine Antarctic Systems and Stocks (BIOMASS) program, [57] which laid a good foundation for science-based decision-making process of CCAMLR. The CALMR Convention established its own Scientific Committee (SC-CCAMLR), which meets annually immediately prior to the Commission meeting. According to the CALMR Convention, CCAMLR shall “formulate, adopt and revise conservation measures on the basis of the best scientific evidence available” [58] and take full account of the recommendations and advice of the Scientific Committee” [59].

According to Conservation Measure 91-04, “CCAMLR MPAs shall be established on the basis of the best available scientific evidence”. [60] Further, “the Commission shall establish CCAMLR MPAs following advice from the Scientific Committee by adopting conservation measures in accordance with this measure.” [61] Nevertheless, while many delegations believe that MPA proposals are based on best available science and consistent with the precautionary approach to marine living resource management. [62] There are divergent views that there does not exist a threat of serious or irreversible damage to Antarctica marine living resources for the application of precautionary approach. [63] Due to tense discussions on MPAs, the fundamental role of science in CCAMLR’s decision-making process seems to be shaken. Brooks et.al., highlights that science-based management in the Southern Ocean is in decline for various reasons. [64] These reasons include “negotiations tainted by geopolitical tensions elsewhere; lack of trust between states entrenched in their positions for or against MPAs; and States proposing MPAs in their claimed territories being accused of using political, rather than ecological boundaries as a tool for asserting sovereignty”. [65] Goldsworthy, however, drew a more nuanced conclusion that there is “no overall decline trend in the uptake of Scientific Committee advice by CCAMLR”, but inconsistency does exist when it comes to the application of best available scientific evidence across issues, especially MPAs. [66]

The precautionary approach is seen as an important way of make decisions in the face of scientific uncertainty. [67] However, the interpretation of the meaning and applicability of the precautionary approach vary. [68] The precautionary approach is enshrined in another implementing agreement of the UNCLOS - 1995 Fish Stocks Agreement (FSA). [69] The FSA provides 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”. [70]

The deadlock in the CCAMLR MPA process showcases the difficulty of applying a science-based precautionary approach in fisheries management when there are existing fishing interests. During the BBNJ negotiations, countries had long discussions of whether the precautionary principle can be listed as a guiding principle of the BBNJ Agreement. The final text is a vague compromise – “the precautionary

principle or precautionary approach, as appropriate”. [71] This provides much leeway for countries to interpret the term. The BBNJ Agreement incorporates the use of “the best available science and scientific information” [72] as one of its guiding principles and approaches as well, without further clarifying any difference between science and scientific information. MPA Proposals under the BBNJ Agreement “shall be formulated on the basis of the best available science and scientific information and, where available, relevant traditional knowledge of Indigenous Peoples and local communities, *taking into account* the precautionary approach and an ecosystem approach” [73].

There is “an emphasis on and need for undertaking and applying science and knowledge” across all four major elements of the BBNJ Agreement. [74] The BBNJ Agreement established the Scientific and Technical Body (STB), as one of its core bodies, through Article 49. It is expected that science will no doubt play an important role in the process of establishing high seas MPAs under the BBNJ Agreement, such as conducting preliminary review of proposals [75] and subsequently making recommendations to the Conference of the Parties. [76] Nevertheless, it would be difficult to celebrate the BBNJ Agreement as a new legal instrument that fully embraces and implements precautionary approach on the high seas. What the BBNJ seems to have reflected from CCAMLR experience is to require that a MPA proposal shall include “a draft management plan encompassing the proposed measures and outlining proposed monitoring, research and review activities to achieve the specified objectives” [77,78] It is also made clear by the BBNJ Agreement that MPAs “shall be monitored and periodically reviewed by the STB”. [79] There is no need to establish another specific scientific body or program, such as RMP, for each MPA.

This section discussed another tension in MPA negotiations regarding the interpretation and the application of science-based precautionary approach for conservation of marine living resources. We now move to examine a procedural matter that might be a hinderance for establishing high seas MPAs.

3.3. Consensus in decision-making

Article XII (1) of the CAMLR Convention provides that “decisions of the Commission on matters of substance shall be taken by consensus. The question of whether a matter is one of substance shall be treated as a matter of substance.” Consensus is understood as “the absence of objection rather than a particular majority.” [80] The UNCLOS negotiation (the Third United Nations Conference on the Law of the Sea 1973 – 1982) can be seen as an example of applying consensus, where most substantive issues were agreed without voting. [81] The consensus rules may “account for a very long duration of the Conference, but enabled a Convention with the widest possible support”. [82] The UNCLOS also defines consensus in its Part XI regarding The Area, which means “the absence of any formal objection.” [83]

According to a 2006 study, in 1985, 60 per cent of issues before the United Nations General Assembly were adopted by consensus, while the use of consensus in international decision-making process increased considerably in the first decade of the 21st Century. [84] Consensus was popular those days because of “the divorce of power from voting majorities resulting from the expansion of membership in the international system” [85]. In the context of the UN, thanks to decolonisation, the Group of 77 with 134 developing countries has emerged as large voting power in a “one country, one vote” system. The consensus is to make sure “very broadly based support for decisions in a highly divided system.” [86]

In the context of CCAMLR, due to opposition from China and Russia, the MPA process is at a stalemate. So much so that the consensus process has been called an “Achilles’ heel and a potential structural weakness for CCAMLR”. [87] Nocito captured views from BBNJ delegates who were also involved in CCAMLR negotiations. Some are indeed frustrated, calling consensus a “killer”, because one or two countries can block the whole process. [88] Nevertheless, through consensus, major powers’

concerns could be taken seriously, and not sidelined by a voting majority. It is unrealistic to expect CCAMLR to change its consensus process. Further, if China - the world’s largest distant water fishing country [89] is not on board a high seas MPA proposal, it would be difficult to imagine an effective management and compliance of that MPA at a later stage.

In any case, during the BBNJ negotiation, consensus decision-making was suggested by some delegations for the establishment of MPAs. Others learnt from the CCAMLR experience and proposed to use majority voting. A compromise has been made in the final text of the BBNJ Agreement. It is agreed that consensus shall be a general rule. However, if parties repeatedly cannot reach consensus, which may have been a reference to CCAMLR, [90] then a voting option should be in place. Comparing to other organizations, such as the Council of the European Union (55% of the EU countries, representing 60% of the total EU population vote in favour), [91] the BBNJ Agreement does set a high bar for resorting to qualified majority voting. It is required that

“If no consensus is reached, decisions and recommendations under this Part shall be taken by a three-fourths majority of the Parties present and voting, before which the Conference of the Parties shall decide, by a two-thirds majority of the Parties present and voting that all efforts to reach consensus have been exhausted.” [92]

It must be pointed out that decision-making in the ABMTs part of the BBNJ Agreement is like the UNCLOS negotiation (1973 – 1982). Rule 37 of the Rules of Procedure of the Third Law of the Sea Conference provides that “Before a matter of substance is put to the vote, a determination that all efforts at reaching general agreement have been exhausted shall be made by the majority specified in para.1 of rule 39 (two-thirds majority of the representatives present and voting)”. [93]

Perhaps what countries can also learn from the CCAMLR experience is the need to make full use of the BBNJ Agreement’s extensive and time-bound consultation process on MPA proposals. [94] In the current geopolitical situation, submission of a MPA proposal that covers large area of the high seas to an international organization without prior consultation might be seen by some countries as a surprise or even an “attack”. This kind of sentiment may in turn generate unnecessary and emotional barriers during the negotiation process of establishing MPAs. Consultations on MPA proposals is now a formal step under the BBNJ Agreement. It is highly important to gather all relevant stakeholders’ views and reflect those contributions before submitting a revised proposal to the BBNJ’s STB. [95]

CCAMLR and BBNJ are not living in isolation of global politics. As elaborated above, geopolitics can affect the operation of international organizations, especially when it comes to decision-making process. So in Section 3.4 below, we will look into how countries can navigate geopolitical tensions if they want to establish high seas MPAs.

3.4. Navigating geopolitical tensions

Because Antarctica is remote and the Antarctic Treaty was adopted before the UNCLOS, the Antarctic Treaty Consultative Meetings (ATCMs) have a sense of “uniqueness”. However, the Antarctic Treaty itself was adopted during the Cold War as “a significant diplomatic and legal solution to balance the aspirations and interests of a number of different actors”. [96] As mentioned in Section 2, CCAMLR was established as a response to the Soviet Union’s expansion of krill fishing. CCAMLR’s MPA negotiations have never been in political isolation, [97] and are heavily affected by global events. [98] In 2013, the Philippines unilaterally initiated an arbitration case, based on Annex VII of the UNCLOS against China on the South China Sea. China boycotted the arbitration from the very beginning. It also believes that the arbitration is politically motivated, with support of the United States to contain China’s rise. [99] This is perhaps one of hidden reasons why Chinese delegation suddenly became vocally opposed to MPA proposals at the 2013 CCAMLR Annual Meeting. From the South China Sea arbitration to

Trump's "Trade War", not to mention the Russian invasion of Ukraine, Russia and China's relations with the West have been deteriorating over the past decade. [100] Western sanctions pushed Russia even closer to China geopolitically. [101]

Geopolitics [102] are nothing new to BBNJ negotiations either. Due to the pandemic, the BBNJ IGC 4 was postponed from March 2020 to March 2022. The new date was within one month of the Russian invasion of Ukraine. At the beginning of the IGC4, several Western delegations started their statements by condemning the actions of the Russian Federation. Nevertheless, amid war and pandemic, the BBNJ Agreement was successfully achieved. This is a big win thanks to multilateralism, which is needed for this increasingly divided world. Because China has been working with the Group of 77 since 1964 and wholeheartedly supported developing countries throughout the UNCLOS negotiations. During the BBNJ negotiations, China to a certain extent also aligned herself with the Group of 77, not Russia. One example is China's support of incorporating common heritage of humankind principle into the BBNJ Agreement, while Russia saw it as a "concept".

Current geopolitical tensions between China, Russia and the West overshadow the future operation of the BBNJ Agreement. Because geopolitical tension could affect meaningful and substantive connections between countries, which jeopardizes the cooperation and collaboration essential to address existential environmental threats. [103] Major powers still need to be on board when establishing and effectively managing high seas MPAs under the BBNJ Agreement. In 1983, Boczek wrote that "as a member of the Consultative Parties and a nation deeply involved in Antarctic affairs, the Soviet Union has acquired a vested interest in the present Antarctic regime." [104] That is one reason why the ATS was stable even during tense geopolitical competition between the US and the Soviet Union in the Cold War. In an era of US-China rivalry, what countries could learn from CCAMLR's experience is perhaps to conduct consultations carefully and convince all major powers onboard, before formally submitting MPA proposals under the BBNJ Agreement.

4. Concluding remarks

The adoption of the BBNJ Agreement amid war and a pandemic is a reason for hope. The BBNJ provides a solid legal basis for establishing high seas MPAs. Such MPAs will also facilitate achievement of Target 3 of the Kunming-Montreal Global Biodiversity Framework. [105] CCAMLR's struggle to establish MPAs in Antarctica provides valuable lessons for countries who would like to do so under the BBNJ Agreement in the future.

The negotiation of BBNJ Agreement reflects CCAMLR's experience. It has clarified the relationship between conservation and use when it comes to establish MPAs, as well as makes it clear no Research and Monitoring Program is needed for any new MPA proposal. Nevertheless, the precautionary approach is not as enshrined in the BBNJ Agreement as in the 1995 Fish Stocks Agreement. Moreover, the BBNJ Agreement, due to its limited mandate, cannot agree on measures with respect to fisheries. This means BBNJ MPAs must find a way to develop collaboration with existing instruments, frameworks and bodies to achieve its marine conservation goals.

In any case, the BBNJ Agreement is certainly a positive development for the conservation of marine living resources in areas beyond national jurisdiction. Its conclusion occurred despite significant geopolitical tension. Hopefully, the BBNJ Agreement, as a global forum will further facilitate bringing the world together for a sustainable future on the planet. The BBNJ Agreement could also potentially inspire institutions and legal instruments, such as CCAMLR to do a better job in Antarctic waters.

Data Availability

No data was used for the research described in the article.

Acknowledgements

Australian Research Council, DP190101214; Chiang Ching-kuo Foundation for International Scholarly Exchange, RG008-P-20

References

- [1] A/CONF.232/2023/4) - adopted on 19 June 2023.
- [2] UNGA 69/292 (19 June 2015): Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. For negotiation history of the BBNJ Agreement, see Efthymios Papastavridis, The Negotiations for a New Implementing Agreement under the UN Convention on the Law of the Sea Concerning Marine Biodiversity, *International and Comparative Law Quarterly* (2020) 69 (3) 585-610.
- [3] By virtue of UNGA 72/249 (24 December 2017), Intergovernmental Conference on Marine Biodiversity of Areas beyond National Jurisdiction (IGC) were held at the United Nations Headquarters in New York. IGC 1, 4-17 September 2018; IGC 2, 25 March – 4 April 2019; IGC3, 19 – 30 August 2019; IGC4, 7 – 18 March 2022; IGC5.1, 15 – 26 August 2022; IGC 5.2, 20 February – 3 March 2023.
- [4] Article 1 (9), BBNJ Agreement.
- [5] STATUS AS AT: 12-05-2024, 09:15:35 EDT, UNTC.
- [6] In accordance with Article 68(1), "This Agreement shall enter into force 120 days after the date of deposit of the sixtieth instrument of ratification, approval, acceptance or accession".
- [7] Convention on the Conservation of Antarctic Marine Living Resources, 1980, p. 1329. UNTS 47.
- [8] Article I.1, CAMLR Convention.
- [9] CCAMLR, Conservation Measure 91-05 Ross Sea Region Marine Protected Area, 2016.
- [10] CCAMLR-41/34, submitted by Argentina and Chile, for a conservation measure establishing an MPA in Domain 1 (Western Antarctic Peninsula and South Scotia Arc); CCAMLR-41/27, submitted by Australia, the EU and its Member States, India, New Zealand, Norway, Korea, Ukraine, the UK, the USA and Uruguay, for an East Antarctic MPA; CCAMLR-41/28, submitted by the EU and its Member States, Norway, Uruguay, Australia, the UK, New Zealand, the USA, Korea, India and Ukraine, for a conservation measure establishing an MPA across the Weddell Sea region.
- [11] Membership of CCAMLR, (<https://www.ccamlr.org/en/organisation/who-involved-ccamlr>).
- [12] Brooks Cassandra M, et al., Reaching consensus for conserving the global commons: The case of the Ross Sea, Antarctica, *Conserv. Lett.* 13 (1) (2019) 8–9, e12676.
- [13] A. Atkinson, et al., A re-appraisal of the total biomass and annual production of Antarctic krill, *Deep Sea Res. Part I* 56 (5) (2009) 727–740.
- [14] Antarctic Treaty. Adopted 1 December 1959, entered into force 23 June 1961, 402 UNTS 71.
- [15] Haward, M., and D. Mason. 2011. "Australia, the United Nations and Question of Antarctica." in M. Haward, and T. Griffiths (eds), *Australia and the Antarctic Treaty System: 50 Years of Influence* (University of New South Wales Press, Sydney) 202–221.
- [16] Article 4, Antarctic Treaty.
- [17] J.J. Solecki, A Review of the U.S.S.R, *Fish. Ind. Ocean Manag.* 5 (1979) 98–102.
- [18] Antonello, A. (2019). *The Greening of Antarctica*. Oxford University Press, 114–116.
- [19] F.F. Litvinov, et al., The soviet krill fishery in the atlantic sector of the antarctic from 1977 to 1991: fishing effort distribution and international patterns, *CCAMLR Sci.* 10 (2003) 3.
- [20] For negotiation history of CCAMLR, see for example, Antonello, A. (2019). Chapter 4, Seeing the Southern Ocean ecosystem: enlarging the Antarctic community, *The Greening of Antarctica*. Oxford University Press.
- [21] Secretariat of the Antarctic Treaty, Report of the Eighth Consultative Meeting, Oslo, 9-20 June 1975, 40.
- [22] Secretariat of the Antarctic Treaty, Report of the Ninth Consultative Meeting, London, 19 September – 7 October 1977, 13-16.
- [23] Karl-Hermann Kock, Antarctic Marine Living Resources – exploitation and its management in the Southern Ocean, *Antarctic Science* 19 (2007) 231; M. Haward, Contemporary challenges to the Antarctic Treaty and Antarctic Treaty System: Australian interests, interplay and the evolution of a regime complex, *Australian Journal of Maritime and Ocean Affairs* 9 (1) (2017) 21–24.
- [24] B.A. Boczek, The protection of the Antarctic ecosystem: a study in international environmental law, *Ocean Dev. Int. Law* 13 (3) (1983) 376.
- [25] CCAMLR Conservation Measure 91-03 (2009), Protection of the South Orkney Islands Southern Shelf.
- [26] CCAMLR Conservation Measure 91-05 (2016), Ross Sea region marine protected area.
- [27] U.S-China Strategic and Economic Dialogue VII Strategic Track Select Outcomes. U.S. Department of State. 24 June 2015. Retrieved 12 September 2023 from (<http://2009-2017.state.gov/r/pa/prs/ps/2015/06/244203.htm>); Chinese version see Xinhua. 26 June 2015. Retrieved 12 September 2023 from (http://www.xinhuanet.com/world/2015-06/26/c_1115727263_5.htm).
- [28] The White House President Barack Obama. U.S. Fact Sheet for President Obama's Bilateral Meeting with President Xi Jinping. September 3 2016. (<https://ob>

- [amawhitehouse.archives.gov/the-press-office/2016/09/03/us-fact-sheet-president-obamas-bilateral-meeting-president-xi-jinping](https://www.americanwhitehouse.archives.gov/the-press-office/2016/09/03/us-fact-sheet-president-obamas-bilateral-meeting-president-xi-jinping).
- [29] It was originally proposed to be 2.27 million square kilometres and reduced to 1.55 million square kilometres. Apart from the 1.12 million square kilometres that make up the no-take zone, the Ross Sea region MPA allows "research fishing" in its Special Research Zone and Krill Research Zone. The Ross Sea region MPA is to remain for 35 years, which is a rare practice for protected areas. See Nengye Liu, *The Rise of China and Conservation of Marine Living Resources in the Polar Regions*, *Marine Policy* (2020) 121, 104181, 3.
- [30] CCAMLR-XXXVII/32, The Development of Research and Monitoring Plan for CCAMLR MPAs.
- [31] Sc-Camlr-38/20, The Development of Research and Monitoring Plan for CCAMLR MPAs.
- [32] State Council Information Office of P.R. China. October 2023. White Paper on Development of China's Distant Water Fisheries. Retrieved 1 February 2024, from http://www.scio.gov.cn/zfbps/zfbps_2279/202310/t20231024_775875.html.
- [33] Adam, D. (25 August 2021). Krill: the tiny creature with a huge ocean footprint, *China Dialogue* (<https://chinadialogueocean.net/en/conservation/18351-krill-tiny-creature-huge-ocean-footprint/>).
- [34] Nengye Liu, Geopolitical Changes and Futures of CCAMLR, in Shirley Scott, Tim Stephens and Jeffery McGee (eds), *Geopolitical Change and the Antarctic Treaty System: Historical Lessons, Current Challenges* (Springer).
- [35] Article XII(1) CAMLR Convention.
- [36] E.g., Third Special Meeting of CCAMLR, which was focused exclusively on the issue of MPAs, was hosted by the Government of Chile, 19-23 June 2023.
- [37] R.R. Frank, *The convention on the conservation of Antarctic marine living resources*, *Ocean Dev. Int. Law* 13 (3) (1983) 305.
- [38] Ibid.
- [39] Anthony J. Press, Ind Hodgson-Johnston, Andrew J. Constable, *The Principles of the Convention on the Conservation of Antarctic Marine Living Resources: Why its Commission is not a Regional Fisheries Management Organization*, in: Nengye Liu, Cassandra Brooks, Tianbao Qin (Eds.), *Governing Marine Living Resources in the Polar Regions*, 15, Edward Elgar, 2019.
- [40] CCAMLR Annual Report 2014, 57.
- [41] See for example, CCAMLR Annual Report 2014, 58; Para.8.97, CCAMLR Annual Report 2015, 54; Para.9.17, CCAMLR Annual Report 2016, 59; Para.8.36, CCAMLR Annual Report 2017, 48; Para.6.21, CCAMLR Annual Report 2018, 25; Para.6.56, CCAMLR Annual Report 2019, 34; Para.5.26, CCAMLR Annual Report 2022, 36.
- [42] CCAMLR-XXXVII/32, The Development of Research and Monitoring Plan for CCAMLR MPAs; Sc-Camlr-38/20, The Development of Research and Monitoring Plan for CCAMLR MPAs.
- [43] Para.9.17, CCAMLR Annual Report 2016, 59.
- [44] Preamble, International Convention for the Regulation of Whaling, adopted 2 December 1946, entered into force 10 November 1948. 161 UNTS 72 (ICRW).
- [45] Commercial Whaling, IWC, (<https://iwc.int/management-and-conservation/whaling/commercial/>).
- [46] Nengye Liu, Alexander Proelss, Valentin Schatz, *Regulating Exceptions for Research and Exploratory Fishing in the Southern Ocean Marine Protected Areas: A Comparative Analysis on Balancing Conservation and Commercial Use*, *Ocean Dev. Int. Law* 53 (1) (2022) 75.
- [47] Detailed analysis see Vito De Lucia, *Regime Interaction Through Concepts: The BBNJ Process as a Critical Juncture in the Relation Between the Convention on Biological Diversity and the Convention on the Law of the Sea*, in: Nele Matz-Lück, Øystein Jensen, Elise Johansen (Eds.), *The Law of the Sea Normative Context and Interactions with other Legal Regimes*, Routledge, 2023, pp. 44–67.
- [48] According to Article 2 of the BBNJ Agreement: "The objective of this Agreement is to ensure the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, for the present and in the long term, through effective implementation of the relevant provisions of the Convention and further international cooperation and coordination."
- [49] James Harrison, *Making the Law of the Sea: A Study in the Development of International Law* (Cambridge University Press, 2011), p.85.
- [50] Preamble, BBNJ Agreement.
- [51] See for example, Mariana Caldeira, Heliana Teixeira and Aan Hilario, *Negotiations to implement area-based management tools beyond national jurisdiction: the scientific community's view*, *Frontiers in Marine Science* (2023) DOI 10.3389/fmars.2023.1173682; Sarah Lothian, *The BBNJ Preamble: More than just window dressing*, *Marine Policy* 153 (2023) 105642.
- [52] Third Preamble Paragraph, the BBNJ Agreement.
- [53] Regarding how science became the dominant Antarctic currency, see for example, Peder Roberts, *Does the science criterion rest on thin ice?* *The Geographical Journal* (2023) 189 (1) 19-20.
- [54] Preamble, The Antarctic Treaty.
- [55] Article I.1., The Antarctic Treaty.
- [56] A. Antonello, Chapter 4, *Seeing the Southern Ocean ecosystem: enlarging the Antarctic community, the greening of Antarctica*, Oxford University Press, 2019, pp. 119–126.
- [57] Science in CCAMLR, (<https://www.ccamlr.org/en/science/science>). See also Antonello, *ibid*, 126-131.
- [58] Article IX1(f), CAMLR Convention.
- [59] Article IX 4, CAMLR Convention.
- [60] Para.2, Conservation Measure 91-04 (2011) General Framework for the Establishment of CCAMLR Marine Protected Areas.
- [61] Para.2 Conservation Measure 91-904 (2011).
- [62] For example, see Para.7.35, Report of the Thirty-Second Meeting of the Commission, CCAMLR-XXXII, 2013.
- [63] See, Para.7.69, Report of the Thirty-Third Meeting of the Commission, CCAMLR-XXXIII, 2014.
- [64] Cassandra Brooks et.al., Science-based management in decline in the Southern Ocean, The burden of proof is being turned upside down, *Science* 354 (6309) 185-187.
- [65] Ibid.
- [66] Lynda Goldsworthy, Best available science' approach to management decisions by the commission for the convention on the conservation of Antarctic living resources: consistent or selective? *Aust. J. Marit. Ocean Aff.* 14 (1) (2022) 70.
- [67] Mihalis Kritikos, Book Review: *Philosophy and the Precautionary Principle: Science, Evidence, and Environmental Policy*, by Daniel Steel (Cambridge University Press) 2014; *Science and the Precautionary Principle in International Courts and Tribunals: Expert Evidence, Burden of Proof and Finality*, by Caroline E. Foster, (Cambridge University Press) 2011, *Transnatl. Environ. Law* 4 (2) (2015) 451–455.
- [68] Kenneth R. Foster, et al., *Science and the Precautionary Principle*, *Science* 288 (5468) (2000) 979–981.
- [69] Article 6 (1), "States shall apply the precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment." Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (New York, 4 December 1995, in force 11 December 2001) 2167 UNTS 3.
- [70] Article 6 (2), Fish Stocks Agreement.
- [71] Article 7 (e), BBNJ Agreement.
- [72] Article 7 (i), BBNJ Agreement.
- [73] Article19 (3), BBNJ Agreement.
- [74] Christine Gaebel, et al., Institutionalizing science and knowledge under the agreement for the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction (BBNJ): Stakeholder perspective on a fit-for-purpose Scientific and Technical Body, *Mar. Policy* 161 (2024) 105998.
- [75] Article 20, BBNJ Agreement.
- [76] Article 21.7, BBNJ Agreement.
- [77] Article 19 (4) f, BBNJ Agreement.
- [78] Emily S. Nocito, Cassandra Brooks, *The influence of Antarctic governance on marine protected areas in the Biodiversity Beyond National Jurisdiction Agreement negotiation*, *npj Ocean Sustain.* 7 (2023) 13.
- [79] Article26 (3), BBNJ Agreement.
- [80] United Nations Juridical Yearbook 2005, 457.
- [81] Robbie Sable, *Procedure at International Conferences, A Study of the Rules of Procedure at the UN and at Inter-governmental Conferences*, Cambridge University Press, 2006, p. 342.
- [82] Myron H. Nordquist, *United Nations Convention on the Law of the Sea 1982, A Comment. vol. I* (1985) 104.
- [83] Article161 (7) e, UNCLOS.
- [84] Robbie Sable, note lxxxi above, 338.
- [85] Ibid.
- [86] Ibid.
- [87] Lynda Goldsworthy, Consensus decision-making in CCAMLR: Achilles' heel or fundamental to its success? *Int. Environ. Agreem.: Polit., Law Econ.* 22 (2022) 433.
- [88] Nocito and Brooks, n. lxxviii above, 4.
- [89] The State Council Information Office of the People's Republic of China, Development of China's Distant Water Fisheries, October 2023, (<https://english.news.cn/20231024/d60bd0b187464ab0aeac24f6ca56446/c.html>).
- [90] Nocito and Brooks, n. lxxviii above, 5.
- [91] Qualified Majority, EUR-Lex, (<https://eur-lex.europa.eu/EN/legal-content/glossary/qualified-majority.html>).
- [92] Article 23 (2), BBNJ Agreement.
- [93] Rules of procedure of the Third United Nations Conference on the Law of the Sea Conference, UN Doc. A/CONF.62/30/Rev.3, 1981.
- [94] Article 21, BBNJ Agreement.
- [95] Article21 (5), BBNJ Agreement.
- [96] Marcus Haward, Andrew Jackson, *Antarctica: geopolitical challenges and institutional resilience*, *Polar J.* 13 (1) (2023) 33.
- [97] Brooks et.al., n. xii above, 6.
- [98] Seth T. Sykora-Bodie, Tiffany H. Morrison, *Drivers of consensus-based decision-making in international environmental regimes: Lessons from the Southern Ocean*, *Aquat. Conserv.: Mar. Freshw. Ecosyst.* 29 (12) (2019) 2147–2161.
- [99] See for example, Xinhua, 7 August 2023, China urges U.S. to stop utilizing South China Sea issue to sow discord, (<https://english.news.cn/20230807/4a19d5f6ee9d4c7ea6c7cd5d6ace1b3f/c.html>).
- [100] US-China relations are entering a dangerous period, *The Economist*, July 30 2020.
- [101] China Ministry of Foreign Affairs, Joint Statement of the People's Republic of China and the Russian Federation on Deepening the Comprehensive Strategic Partnership of Coordination for the New Era, 22 March 2023, available at (http://www.fmprc.gov.cn/zyxw/202303/t20230322_11046188.shtml) (in Chinese).
- [102] Geopolitics is defined by McGee, Edmiston and Haward as "the investigation of the intersection between power, authority and space in rivalry between states." in McGee, Edmiston and Haward (2022). *The Future of Antarctica: Scenarios from Classical Geopolitics* (Springer Nature, Singapore) p.9.

- [103] [Nengye Liu, Australia-China environmental cooperation in a hyperconnected world, Asialink \(3 May 2022\)](#).
- [104] [B.A. Boczek, The Soviet Union and the Antarctic Regime, Am. J. Int. Law 78 \(4\) \(1984\) 858](#).
- [105] Target 3 of Kunming-Montreal Global Biodiversity Framework: “Ensure and enable that by 2030 at least 30 per cent of terrestrial and inland water areas, and

of marine and coastal areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures.” CBD/COP/DEC/15/4, 19 December 2022.