MPAs in the Southern Ocean under CCAMLR: Implementing SDG 14.5

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Abstract

In 2016 the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) designated the largest marine protected area (MPA) in the Ross Sea. Hailed as both a precedent and a prototype for MPAs in both Antarctica and in areas beyond national jurisdiction more generally, it has nevertheless proving challenging to implement. Moreover, further MPAs have yet to be designated in the region although a number are under negotiation. This paper will evaluate the contribution made by CCAMLR to the implementation of SDG 14.5 (the conservation of at least 20 percent of marine and coastal areas by 2020), its relationship to area-based protection under the 1991 Environmental Protocol, and highlight the challenges of establishing MPAs beyond the jurisdiction of states.

Introduction

In 2016, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) designated the world's largest high seas marine protected area (MPA) in the Ross Sea region.[1] Hailed as both a precedent and a prototype for MPAs in the Southern Ocean and in areas beyond national jurisdiction more generally, its protracted but ultimately successful negotiation has arguably come at significant cost to the future of conservation governance in Antarctica.[2] There remain disputes over the implementation of the Ross Sea region MPA – as well as the only other MPA established in the region, the South Orkney Islands Southern Shelf MPA, designated in 2009[3] - and no further MPAs have been established despite three further MPAs being at advanced stages of development. In a damning criticism, Brooks, Crowder and Curran et al have asserted that the institutional conflict over MPAs has caused 'CCAMLR member states to disregard the best available science, distort the foundational rules of their convention, break trust, and threaten the integrity of one of the world's most well-regarded science-based multinational governance efforts.'[4] The MPA process within CCAMLR is scientific, political and pragmatic in largely equal measure, and has publicly demonstrated the significant challenges in implementing area-based protection beyond national jurisdiction. This arguably has important lessons for states which are currently engaged in negotiations for an internationally legally binding instrument for the conservation and sustainable use of biodiversity beyond national jurisdiction (ILBI)[5] under the 1982 United Nations Convention on the Law of the Sea (LOSC).[6] One the other hand, CCAMLR is undoubtedly the global leader in establishing no-take zones in the global commons and the positive lessons it can offer should not be overlooked.

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[1] CCAMLR Conservation Measure 91-05 (2016) *Ross Sea region marine protected area.*

[2] See Cassandra M. Brooks, Larry B. Crowder, Lisa M. Curran et al, 'Science-based management in decline in the Southern Ocean' 364 (issue 6309) (14 October 2016) *Science* 185 – 187.

[3] CCAMLR Conservation Measure 91-03 (2009) *Protection of the South Orkney Islands southern shelf.*

[4] Brooks, Crowder, Curran et al, note 2, 185.

[5] The preparatory committee for the ILBI was established in 2015 (see General Assembly Resolution 69/292, *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*, A/RES/69/292 (19 June 2015) available at undocs.org) with negotiations being formally initiated in 2017 (see General Assembly Resolution 72/249, *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*, A/RES/72/249 (24 December 2017) available at undocs.org). The four scheduled negotiating sessions are due to conclude in 2020.

[6] *United Nations Convention on the Law of the Sea*, adopted 10 December 1982, 1833 UNTS 397 (entered into force 16 November 1994).

This chapter will examine the processes for establishing MPAs and other area-based conservation measures under CCAMLR with particular focus on the two MPAs established to date: the South Orkney Islands Southern Shelf MPA and the Ross Sea region MPA. It will highlight the progress (or lack thereof) of three other MPA proposals (in East Antarctica, the Weddell Sea and the Antarctic Peninsula) under CCAMLR and explore the relationship between CCAMLR and the 1991 Environmental Protocol in respect of their approach to area-based protection. Finally, this chapter will conclude with remarks as to the lessons that might be drawn from the experience of establishing the CCAMLR MPA network in the context of other global MPA networks and, specifically, the ILBI.

CCAMLR and Southern Ocean Conservation

The Southern Ocean comprises 9.6 percent of the world's oceans[7] and makes a significant contribution to global ocean health and processes though the transfer of heat and carbon dioxide to the deep ocean and primary production, including the export of nutrients.[8] It is classified as a 'distinct realm within the Earth's oceans' owing to a high degree of endemism of species and habitats.[9] Although like all other ocean regions, the Southern Ocean has witnessed over-exploitation – particularly with respect to seals and whales in the nineteenth and early twentieth century,[10] and it currently supports commercial fisheries for a number of species, including krill and toothfish, it also provides the location for some of the last unexploited populations of fish.[11] The Ross Sea region in particular has been labelled the 'last wilderness' being the 'least impacted of any open ocean, marine area of Earth'.[12] In part, this level of protection is a consequence of the remoteness of the region, but political will has also played a significant role in conservation to date.[13]

The 1980 Convention for the Conservation of Antarctic Marine Living Resources (CAMLR Convention)[14] is unique among regional fisheries management organisations (RFMOs) in terms of its origins, objectives and membership. It has been described as 'a conservation instrument with some of its provisions related to regulating fishing activities, rather than a fisheries management agreement that has conservation provisions.'[15] The CAMLR Convention comprises an integral component of the Antarctic Treaty System (ATS), and parties must not engage in any activities in the Antarctic Treaty area[16] contrary to the principles and purposes of the 1959 Antarctic Treaty,[17] and parties are bound by Articles IV and VI of the 1959 Treaty.[18] Specifically, Article IV of the

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[7] José C. Xavier, Angelika Brandt, Yan Ropert-Coudert et al, 'Future Challenges in Southern Ocean Ecology Research' 3 (2016) *Frontiers in Marine Science* Article 94, 1.
[8] Ibid.
[9] Lucinda L. Douglass, Joel Turner, Hedley S. Grantham et al, 'A hierarchical Classification of Benthic Biodiversity and Assessment of Protected Areas in the Southern Ocean' 9 (2014) PLOS ONE e100551, 1.
[10] See David G. Ainley and Daniel Pauly, 'Fishing down the food web of the Antarctic continental shelf and slope' 50 (2014) *Polar Record* 92 – 107.
[11] Cassandra M. Brooks, Larry B. Crowder, Henrik Österblom et al, "Reaching consensus for conserving the global commons: The case of the Ross Sea, Antarctica" *Conservation Letters* 2019e12676, 1.
[12] D.G. Ainley, 'A history of the exploitation of the Ross Sea, Antarctica' 46 (2010) *Polar Record* 233 – 243, 233. See also B. S. S. Halpern et al, 'A global map of human impact on marine ecosystems' 319 (2008) *Science* 948 – 951.
[13] Cassandra M. Brooks, Larry B. Crowder, Henrik Österblom et al, note 11, 1.
[14] *Convention on the Conservation of Antarctic Marine Living Resources*, adopted 20 May 1980, 1329 UNTS 47 (entered into force 7 April 1982) (CAMLR Convention).
[15] Anthony J. Press, Indi Hodgson-Johnston and 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 Organisation" in Nengye Liu, Cassandra M. Brooks and Tianbao Qin (eds), *Governing Marine Living Resources in the Polar Regions* (Edward Elgar, Cheltenham, 2019) 9 – 29, 9.
[16] The Antarctic Treaty area is defined as south of 60^0 South Latitude under Article VI of the 1959 Antarctic Treaty.
[17] *Antarctic Treaty*, adopted 1 December 1959, 409 UNTS 71 (entered into force 23 June 1961).
[18] 1980 CCAMLR, Arts III and IV.

CAMLR Convention reiterates Article IV of the 1959 Antarctic Treaty, stipulating that neither the Convention nor activities undertaken while the Convention is in force shall constitute a basis for asserting, supporting or denying a claim or basis of claim, including a claim to exercise coastal state jurisdiction within the Convention area or prejudicing any party's recognition or non-recognition of any claim. Its situation as part of the ATS has led to a unique membership profile in that it is the only high seas RFMO that includes members not engaged in fishing and, at the time of its adoption, less than half its members were actively fishing in the region.[19]

The objective of CCAMLR is 'the conservation of Antarctic marine living resources'[20] with 'conservation' being defined to include 'rational use'.[21] The tension between 'conservation' and 'rational use' has been highlighted by the MPA debate within CCAMLR with some states interpreting 'rational use' as a right to fish.[22] Others have argued that 'rational use' is part of the overall objective of conservation and, moreover, is subsidiary to and 'does not have equal standing with conservation.'[23] In addition to prioritising conservation over exploitation, the CAMLR Convention is also notable for endorsing and implementing early articulations of ecosystem-based and precautionary management.[24] Notably, the scope of the Convention extends beyond the Antarctic Treaty area to the Antarctic Convergence, which forms part of the Antarctic marine ecosystem[25] and to populations of finfish, molluscs, crustaceans and all other species of living organisms, including birds found south of the Convergence.[26] The Antarctic marine ecosystem is described as 'the complex of relationships of Antarctic marine living resources with each other and with their physical environment.'[27] Thus CCAMLR has been rightly 'celebrated as a progressive leader in high seas management'[28] and, unsurprisingly, has also demonstrated leadership on the implementation of high seas area-based protection.

CCAMLR and Area-based Protection[29]

Although a small number of CCAMLR members have disputed CCAMLR's mandate to establish MPAs,[30] Article IX of the Convention permits the Commission to adopt conservation measures 'opening and closing of areas, regions or sub-regions for the purposes of scientific study or conservation, including special areas for protection and scientific study.' CCAMLR's early spatial

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[19] Cassandra M. Brooks, "Competing values on the Antarctic high seas: CCAMLR and the challenge of marine-protected areas" 3 (2013) *The Polar Journal* 277 – 300, 294 – 295.
[20] 1980 CAMLR Convention, Art II (1).
[21] 1980 CAMLR Convention, Art II (2)
[22] Cassandra M. Brooks, "Geopolitical complexity at the bottom of the world: CCAMLR's ongoing challenge of adopting marine protected areas" in Nengye Liu, Cassandra M. Brooks and Tianbao Qin (eds), *Governing Marine Living Resources in the Polar Regions* (Edward Elgar, Cheltenham, 2019) 43 – 64, 58.
[23] Anthony J. Press, Indi Hodgson-Johnston and Andrew J. Constable, note 15, 10 – 11 and 15.
[24] 1980 CAMLR Convention, Art II (3) (a) – (c).
[25] 1980 CAMLR Convention, Art I (1) and (4). The Antarctic Convergence extends between approximately 60^0 and 45^0 latitude.
[26] 1980 CAMLR Convention, Art I (2)
[27] 1980 CAMLR Convention, Art I (3)
[28] Cassandra M. Brooks, note 19, 280.
[29] See generally Karen N. Scott, "Marine Protected Areas in the Southern Ocean" in Alex Oude Elferink, Erik Molenaar and Donald R. Rothwell, *The Law of the Sea and Polar Regions: Interaction between Global and Regional Regimes* (Leiden/ Boston: Martinus Nijhoff, 2013) 113 – 137.
[30] For example, during the negotiations for the Ross Sea region MPA the Ukraine stated, in 2013, that '[t]he UN Convention on the Law of the Sea (ratified by Ukraine) provides the opportunity for establishing MPAs only within the coastal waters in the areas of jurisdiction of those countries. Therefore, at this stage we cannot see any legal possibility for establishing MPAs in the high seas of the World Ocean containing areas for which CCAMLR is responsible.' See *Report of the Second Special Meeting of the CCAMLR Commission* (Bremerhaven, 2013) at [3.26]. Russia has also disputed whether CCAMLR has a legal basis to establish MPAs. See V. V. Lukin, "Russia's current Antarctic policy" 4 (2014) *The Polar Journal* 199 – 222, 219.

management initiatives comprised the designation of CCAMLR Ecosystem Monitoring Program (CEMP) sites for the principal purpose of gathering data in order to compare fished and non-fished areas.[31] However, the CEMP mandate 'is too narrow to fully contribute to a Southern Ocean MPA system.'[32]

In order to respond to the global target to protect 10 percent of the marine environment by 2012[33] adopted by parties to the 1992 Biodiversity Convention,[34] subsequently temporally extended to 2020,[35] and reiterated in Sustainable Development Goal 14.5,[36] CCAMLR agreed, at a workshop held in 2005, to establish a harmonised regime for the protection of the marine environment across the ATS.[37] At a workshop held on bioregionalization of the Southern Ocean in 2007,[38] CCAMLR identified eleven areas deemed to be a priority for protection[39] and these were rationalised into nine planning domains in 2011.[40]

The first CCAMLR MPA and indeed the first MPA to be designated on the high seas was established in 2009 as the South Orkney Islands Southern Shelf (SOISS) MPA.[41] The SOISS MPA covers 94,000 km^2 and is designed to establish a scientific reference area, conserve important predator foraging areas and include presentative examples of pelagic and benthic bioregions.[42] All types of fishing other than scientific research as agreed by the Commission are prohibited within the MPA, and discharges and dumping from fishing vessels are also prohibited. Vessels transiting the MPA are encouraged to inform CCAMLR. The SOISS MPA has been designated for an indefinite duration but is reviewed every five years. As the first high seas MPA, the SOISS represented the vanguard of global oceans governance. Nevertheless, the basis of the SOISS is arguably politics and pragmatism over science. The scope of the MPA omits areas adjacent to the South Orkney Islands with the highest value for conservation[43] and, more fundamentally, Japan, Russia and South Korea acknowledged that they were only able to support the final proposal because 'the area where fishing activity is carried out has been excluded from the original proposal so as to avoid restricting the fishery.'[44] Unsurprisingly Japan, Russia and South Korea regard the SOISS MPA, under which conservation and fisheries management are in practice mutually exclusive, as a good precedent for future MPAs.[45] Other states disagreed with this position.[46] CM

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[31] CCAMLR Conservation Measure 91(01) (2004) *Procedure for according protection to CEMP sites.*
[32] Laurence Cordonnery, Alan D. Hemmings, Lorne Kriwoken, "Nexus and Imgroglio: CCAMLR, the Madrid Protocol and Designating Antarctic Marine Protected Areas in the Southern Ocean" 30 (2015) *IJMCL* 727 – 764, 740.
[33] CBD COP 7 Decision VII/28 'Protected Areas (Articles 8(a) to (e)', para. 18; CBD COP 7 Decision VII/5 'Marine and coastal biodiversity', paras. 18-31; CBD COP 7 Decision VII/30 'Strategic Plan: future evaluation of progress', Annex II, Goal 1.1.
[34] *Convention on Biological Diversity*, adopted 5 June 1992, 1760 UNTS 79 (entered into force 29 December 1993) (CBD).
[35] CBD Decision X/2 (2010) *The Strategic plan for biodiversity 2011 – 2020 and the Aichi Biodiversity Targets*, Target 11.
[36] General Assembly Resolution 70/1, *Transforming our world: the 2030 Agenda for Sustainable Development*, A/RES/70/1 (15 September 2015) available at undocs.org.
[37] Report of the CCAMLR Workshop on Marine Protected Areas (2005) reproduced in *Report of the XXIV Meeting of the Scientific Committee for the Conservation of Antarctic Marine Living Resources, Hobart, 24 – 28 October 2005,* Annex 7.
[38] *Report of the 2007 Workshop on Bioregionalisation of the Southern Ocean* reproduced in Annex 9 of the *Report of the Twenty-Sixth Meeting of the CCAMLR Scientific Committee,* Hobart, Australia, 22 – 26 October 2007.
[39] *Report of the Twenty-Seventh Meeting of the Commission*, Hobart, Australia, 27 October – 7 November 2008, [7.2(vi)].
[40] *Report of the Thirtieth Meeting of the Commission*, Hobart, Australia, 24 October – 4 November 2011, [7.4].
[41] CCAMLR Conservation Measure 91-03 (2009) *Protection of the South Orkney Islands Southern Shelf.*
[42] Ibid.
[43] Cassandra M. Brooks, note 19, 282.
[44] *Report of the Twenty-Eighth Meeting of the Commission,* Hobart, Australia, 26 October – 6 November 2009, [7.4] and [7.5].
[45] Ibid.
[46] Ibid, [7.7].

91-03 (2009) is distinguished by its brevity. 'The MPA was adopted without management, research or monitoring plans, leaving no mechanisms for implementation.'[47] In the decade since the adoption for the SOISS MPA two reviews have been undertaken but neither review report has been adopted by the Commission.[48] Furthermore, although in 2013 Norway and the UK put forward a proposal to harmonise the SOISS MPA with the general framework on MPAs adopted by CCAMLR in 2011,[49] this has yet to occur. A draft Research Monitoring Plan (RMP) for the SOISS MPA has been developed to strengthen harmonisation between these two measures but, even though such a Plan is not required under CM 91-03 (2009) (the general framework instrument), this was also not adopted by the Commission in 2019.[50] The relationship between CM 91-03 (2009) and CM 91-04 (2011) remains a constant source of tension, and discussion within the Commission reveals a clear failure by several member states to take ownership of the SOISS MPA as a *CCAMLR* MPA.[51]

The general framework measure – CM 91-04 (2011) – adopted after the designation of the SOISS MPA, is nevertheless intended to guide the establishment of all future CCAMLR marine protected areas. It endorsed the establishment of MPAs as an important mechanism to sustain ecosystem function and structure particularly in light of the effects of climate change, and highlighted the global target to establish a representative network of MPAs by 2012.[52] It also recognised the importance of establishing MPAs 'in accordance with Article II of the CAMLR Convention, where conservation includes rational use…' as well as the law of the sea.[53] MPAs must be established on the basis of best available scientific evidence and may be designated for the following purposes[54]:

> (i) the protection of representative examples of marine ecosystems, biodiversity and habitats at an appropriate scale to maintain their viability and integrity in the long term;
> (ii) the protection of key ecosystem processes, habitats and species, including populations and life-history stages;
> (iii) the establishment of scientific reference areas for monitoring natural variability and long-term change or for monitoring the effects of harvesting and other human activities on Antarctic marine living resources and on the ecosystems of which they form part;
> (iv) the protection of areas vulnerable to impact by human activities, including unique, rare or highly biodiverse habitats and features;
> (v) the protection of features critical to the function of local ecosystems;
> (vi) the protection of areas to maintain resilience or the ability to adapt to the effects of climate change.

An MPA measure must include specific objectives, clear spatial boundaries and identify activities that are restricted, prohibited or managed, including any temporal or spatial limits on activities.[55] Unless agreed otherwise, when adopted, the measure must include priority elements for a management plan, including any administrative arrangements, as well as the priority elements for a research and monitoring plan and information on any interim management required until the plans

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[47] Cassandra M. Brooks, Larry B. Crowder, Henrik Österblom et al, note 11, 3.
[48] *Report of the Thirty-Eighth Meeting of the Commission,* Hobart, Australia, 21 October – 1 November 2019, [6.29].
[49] CCAMLR Conservation Measure 91-04 (2011) *General Framework for the establishment of CCAMLR Marine Protected Areas*, discussed *infra.*
[50] *Report of the Thirty-Eighth Meeting of the Commission,* Hobart, Australia, 21 October – 1 November 2019, [6.31 – 6.32].
[51] Ibid,]6.33].
[52] CCAMLR Conservation Measure 91-04 (2011), preamble.
[53] Ibid, preamble and [1].
[54] Ibid, [2].
[55] Ibid [3(i), (ii) and (iii)].

are adopted.[56] Notably, CM 91-04 (2011) does not require an MPA to be designated for a particular period, but if there is a period of designation agreed, this must be set out in the relevant measure and must be consistent with the objectives of the MPA.[57] Surprisingly, CM 91-04 (2011) does not actually *define* an MPA for the purposes of CCAMLR.

Following the adoption of an MPA measure and a management plan for the MPA, the Commission must, on the advice of the Scientific Committee, adopt a research and monitoring plan (RMP) for the MPA.[58] The RMP will specify the research to be undertaken in the MPA including (but not limited to) scientific and other research pursuant to the specific objectives of the MPA and monitoring of the degree to which the specific objectives of the MPA are being met.[59] All members may undertake research and monitoring in accordance with a RMP, and data obtained as part of research and monitoring activities must be made available to all members, with research and monitoring data being complied in a report for review by the Scientific Committee every five years.[60] Research and monitoring activities within any MPA are governed by CCAMLR Conservation Measure 24-01 (2019) *The application of conservation measures to scientific research*.[61] Unless otherwise agreed, CCAMLR MPA measures must be reviewed every 10 years in order to evaluate if the specific objectives of the MPA are still relevant or being achieved and the delivery of the research and monitoring plan.[62]

Although the objectives of MPA conservation measures as set out in paragraph 2 of CM 91-04 (2011) are expressed in broad conservation terms, the scope of application of MPA measures is restricted to fishing vessels and vessels carrying out scientific research on Antarctic marine living resources in accordance with CCAMLR conservation measures.[63] Nevertheless, the Commission must endeavour to identify other measures that may be pursued by other elements of the ATS and other organisations, including the International Maritime Organisation (IMO), to support the objectives of the MPA once it has been established.[64] Finally, although CCAMLR MPAs are only binding on CCAMLR members, the Commission must make available those measures to any relevant international or regional organisation or non-state party, whose nationals or vessels may enter the Convention area.[65]

The adoption of CM 91-04 (2011) by consensus, notwithstanding the omission of a definition of an MPA, should, in theory, have alleviated concerns over CCAMLR's mandate to establish MPAs and facilitated the smooth development of a network of representative MPAs across the nine CCAMLR planning domains. In the event, this has not occurred and despite the adoption of the Ross Sea region MPA in 2016, the future of the CCAMLR MPA network is far from certain.

The Ross Sea Region MPA

The Ross Sea region MPA took five years of negotiation and, during this period (and beyond), has 'served as the focal point of the more general challenge to the designation of MPAs in areas beyond

[56] Ibid, [3(iv)].
[57] Ibid, [3(v)].
[58] Ibid, [5].
[59] Ibid, [5(i)].
[60] Ibid, [5(iii) – (v)].
[61] Ibid, [5(ii)].
[62] Ibid, [8].
[63] Ibid, [6]. The usual exemption for warships, naval auxiliary ships or other ships owned or operated by a state on non-commercial service applies although parties are encouraged to apply as far as reasonable and practicable with MPA conservation measures ([7]).
[64] Ibid, [10].
[65] Ibid, [9].

national jurisdiction.'[66] New Zealand and the United States proposed the MPA, but committed a major diplomatic error in failing to present an initial unified MPA proposal to CCAMLR in 2012. Rather, the two states presented separate proposals, unable to agree on whether the MPA should exclude a commercially lucrative toothfish fishery.[67] The compromise position of a joint proposal developed in the second half of the 2012 meeting was too late to facilitate meaningful progress, and valuable momentum was lost. Following a special CCAMLR meeting, held in Bremerhaven in 2013, significant concessions were made at the 2013 CCAMLR meeting, and the Ross Sea MPA proposal was revised to reduce its coverage by almost 40 percent (to 1.34 million km^2) and to include a sunset clause which limits the duration of the MPA unless a positive decision is taken to reaffirm it.[68] At the 2015 CCAMLR meeting the general protection zone (where no commercial fishing is allowed) was reduced and the special research zone (where controlled commercial fishing is permitted) was increased and a new krill research zone was introduced.[69] In 2016, the 50 year duration clause proposed by the US and New Zealand was reduced to 35 years at the insistence of Russia and Japan.[70]

At the 2012 CCAMLR meeting around half of CCAMLR members raised concerns over the Ross Sea region MPA proposal although fifty percent of concerns were raised by just two states: China and Russia.[71] In the latter stages of the negotiation, objecting states were largely confined to China, Russia and the Ukraine. Concerns related to the size and proposed boundaries of the MPA as well as procedural and scientific matters.[72] In a detailed empirical survey carried out by Cassandra Brooks, CCAMLR delegations identified a number of criticisms of the Ross Sea region MPA negotiation process including: a lack of transparency and failure to follow procedure; the failure to define an 'MPA' and confusion over the benefits of area-based protection; and fear that a precedent was being set that would restrict access to fish in the future, and concern that member's 'right to fish', as confirmed in CCAMLR's reference to 'rational use', was being undermined.[73] Russia, China and the Ukraine contested whether CCAMLR had a legal right to designate MPAs under the Convention or indeed the law of the sea more generally[74] and Russia and China articulated a suspicion that MPA proposals were being used as a means for so-called 'coastal states' to secure sovereign control over Antarctic waters or to privilege their fishing interests. [75]

Although the ATS is generally successful in isolating Antarctic governance from broader international geopolitical tensions there is little doubt that external politics influenced the progress

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[66] Karen N. Scott, 'Protecting the Commons in the Polar South: Progress and Prospects for Marine Protected Areas in the Antarctic' in Keyuan Zou (ed), *Global Commons and the Law of the Sea* (Brill Nijhoff, Leiden) (2018) 326 – 343, 333.

[67] Doc. CCAMLR – XXXI/16, New Zealand, *A proposal for the establishment of a Ross Sea region Marine Protected Area* (2012); Doc. CCAMLR – XXXI 40, USA, *A Proposal for the Ross Sea region Marine Protected Area* (2012). See also *Report of the Thirty-first Meeting of the Commission*, Hobart, Australia, 23 October – 1 November 2012 at [7.69 – 7.77]. New Zealand, having opened the toothfish fishery in the Ross Sea was in favour of excluding it from the MPA.

[68] Doc. CCAMLR XXXII/27, New Zealand and USA, *A proposal for the establishment of the Ross Sea Region Marine Protected Area* (2013). See also Doc. CCAMLR XXXII/BG/40 Rev. 1, New Zealand and USA, *Ross Sea Region Marine Protected Area: Explanation of Objectives supporting component areas* (2013) and Doc. CCAMLR XXXII/BG/38 Rev. 1, New Zealand and USA, *Reporting, review and period of designation in the Ross Sea Region MPA Proposal* (2013). See *Report of the Thirty-second Meeting of the Commission,* Hobart, Australia, 23 October – 1 November 2013, [7.4].

[69] *Report of the Thirty-fourth Meeting of the Commission,* Hobart, Australia, 19 – 39 October 2015, [8.41] and [8.107].

[70] *Report of the Thirty-fifth Meeting of the Commission,* Hobart, Australia, 17 – 28 October 2016, [8.39 – 8.44].

[71] Cassandra M. Brooks, Larry B. Crowder, Henrik Österblom et al, note 11, 3.

[72] Ibid, 4.

[73] Cassandra M. Brooks, note 22, 48 – 58.

[74] See for example the discussion in the *Report of the Second Special Meeting of the Commission* (Bremerhaven, 2013), [3.18] and [3.26]; *Report of the Thirty-second Meeting of the Commission*, Hobart, Australia, 23 October – 1 November 2013, [7.22]; *Report of the Thirty-third Meeting of the Commission*, Hobart, Australia, 20 - 31 October, 2014, [5.71]. See also V. V. Lukin, "Russia's current Antarctic policy" 4 (2014) *The Polar Journal* 199 – 222, 220.

[75] *Report of the Thirty-third Meeting of the Commission,* Hobart, Australia, 20 - 31 October, 2014, [7.53], [7.65], and [7.66].

(or lack thereof) of the negotiations. The tension between the US and Russia was generally unhelpful and the shift in China's role in international diplomacy following Xi Jinping taking office 'from one of low-key follower to that of an active player'[76] meant that China became a vocal rather than a silent opponent within the Commission. However, external factors also arguably played an important role in reconciling opponent states to the Ross Sea region MPA proposal in the final couple of years of negotiation. Russia's annexation of Crimea meant that the Ukraine was less vocal in support of Russia's objections from 2015 onwards. High level meetings held between the US and China in the run up to the adoption of the 2015 Paris Agreement helped to persuade China to drop its opposition to the MPA,[77] and US Secretary of State John Kerry, who was keen that his diplomatic legacy include the Ross Sea region MPA, directly liaised with his Russian counterparts in the final months of the negotiation.[78] Finally, the fact that Russian President Vladimir Putin had declared a 'Year of Ecology' in 2016 and that Russia was chairing the 2016 CCAMLR meeting may have contributed to Russia – by this point isolated in its opposition – joining the consensus to finally adopt the Ross Sea region MPA.[79]

At 1.55 million km^2 the Ross Sea region MPA comprises the largest high seas MPA and 72 percent of its waters are closed to commercial fishing although research fishing is permitted in the 'no take' zone.[80] CM 91-05 (2016) *Ross Sea region marine protected area* is designed to contribute the following 11 objectives[81]:

> (i) to conserve natural ecological structure, dynamics and function throughout the Ross Sea region at all levels of biological organisation, by protecting habitats that are important to native mammals, birds, fishes and invertebrates;
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> (ii) to provide reference areas for monitoring natural variability and long-term change, and in particular a Special Research Zone, in which fishing is limited to better gauge the ecosystem effects of climate change and fishing, to provide other opportunities for better understanding the Antarctic marine ecosystem, to underpin the Antarctic toothfish stock assessment by contributing to a robust tagging program, and to improve understanding of toothfish distribution and movement within the Ross Sea region;
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> (iii) to promote research and other scientific activities (including monitoring) focused on marine living resources;
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> (iv) to conserve biodiversity by protecting representative portions of benthic and pelagic marine environments in areas where fewer data exist to define more specific protection objectives;
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> (v) to protect large-scale ecosystem processes responsible for the productivity and functional integrity of the ecosystem;
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> (vi) to protect core distributions of trophically dominant pelagic prey species;

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[76] Nengye Liu and Cassandra M. Brooks, "China's changing position towards marine protected areas in the Southern Ocean: Implications for future Antarctic governance" 94 (2018) *Marine Policy* 189 – 195, 193.
[77] Cassandra M. Brooks, Larry B. Crowder, Henrik Österblom et al, note 11, 8.
[78] Ibid.
[79] Ibid.
[80] Julia Jabour and Danielle Smith, 'The Ross Sea Region Marine Protected Area: Can it be Successfully Managed?" 32 (2018) *Ocean Yearbook* 190 – 205, 192.
[81] CM 91-05 (2016) *Ross Sea region marine protected area*, [3].

(vii) to protect core foraging areas for land-based top predators or those that may experience direct trophic competition from fisheries;

(viii) to protect coastal locations of particular ecological importance;

(ix) to protect areas of importance in the life cycle of Antarctic toothfish;

(x) to protect known rare or vulnerable benthic habitats; and

(xi) to promote research and scientific understanding of krill, including in the Krill Research Zone in the northwestern Ross Sea region.

The Ross Sea region MPA is divided into three zones: the General Protection Zone; the Special Research Zone; and the Krill Research Zone.[82] Within the General Protection Zone any fishing is limited to research fishing and must be conducted in accordance with CCAMLR measures on scientific research fishing under CM 24-01. This provision also applies to research fishing in the Krill Research Zone for all species other than krill.[83] Commercial fishing for toothfish (*Dissostichus* spp.) may take place in the Special Research Zone in accordance with CM 41-09[84] on condition that the catch limit does not exceed 15 percent of the total catch limit for the relevant statistical area. CM 91-05 provides for rules relating to minor variations in this catch limit depending on whether the fishery was closed for the previous season or where a portion of the previous season's catch limit was unharvested.[85] Toothfish caught in the Special Research Zone must be tagged and released at a rate of at least three fish per tonne of green weight caught.[86] Commercial krill fishing may take place in the Krill Research Zone and the Special Research Zone in accordance with CM 51-04[87] and with the specific objectives set out in CM 91-04. No other fishing may take place in the Special Research Zone or the Krill Research Zone.[88] In addition to fishing restrictions, CM 91-04 also prevents transhipment activities (except in cases of emergency)[89] and stipulates that fishing and research vessels should avoid dumping or discharging wastes or other matter within the MPA.[90]

In order to comply with the CCAMLR general framework on MPAs, CM 91-04 requires members to report on their activities relating to the Ross Sea region RMP every five years and to share their data in a timely manner[91] and the conservation measure itself will be reviewed every ten years. As noted above, controversially, CM 91-04 is designated for 35 years and if the Commission does not reach consensus to reaffirm or modify the MPA or adopt a new MPA CM 91-04 will expire at the end of the 2051/52 fishing season.[92] It has been pointed out that 35 years is shorter than the life

[82] CM 91-05 (2016) *Ross Sea region marine protected area*, [5].
[83] Ibid, [6].
[84] CCAMLR Conservation Measure 41-09 (2019) *Limits on the exploratory fishery for Dissostichus mawsoni in Statistical Subarea 88.1.*
[85] CM 91-05 (2016) *Ross Sea region marine protected area*, [8].
[86] Ibid, [8(iii)].
[87] CCAMLR Conservation Measure 51-04 *General measure for exploratory fisheries for Euphausia superba in the Convention Area.*
[88] Ibid, [7].
[89] Ibid, [11].
[90] Ibid, [10]. CCAMLR Conservation Measure 26-01 *General environmental protection during fishing* must be applied as a minimum measure.
[91] Ibid, [15] and [16].
[92] Ibid, [20].

cycle of many of the Antarctic species it is seeking to protect and is thus arguably inconsistent with the objectives of the MPA.[93]

Whilst undoubtedly representing an important precedent in high seas area-based protection, it is unclear whether the Ross Sea region MPA provides a valuable prototype given the significant level of concessions made during its negotiation. Moreover, challenges to its legitimacy have not ceased post-adoption.

Following a workshop on the Ross Sea region MPA (RSRMPA) Research and Monitoring Plan (RMP) held in Rome in 2017, the CCAMLR Scientific Committee endorsed the RSRMPA RMP and described it as 'living document' that is regularly reviewed and updated.[94] Research and monitoring carried out in accordance with RSRMPA RMP should seek to address four questions:[95]

(i) Do the boundaries of the RSRMPA continue to adequately encompass the priority populations, features and areas?
(ii) What are the ecosystem roles of the identified habitats, processes, populations, life-history stages, or other priority features?
(iii) How are the priority features potentially affected by fishing, climate change, environmental variability, or other impacts?
(iv) Does the structure and function of the marine ecosystem differ between areas inside and outside the RSRMPA?

The CCAMLR Scientific Committee, in 2017, suggested that research efforts should extend beyond the 'key species' to include the full ecosystem and should include their full life-cycle distribution (rather than their core distribution) and studies should also be undertaken adjacent to and outside the boundaries of the RSRMPA in order to fully evaluate the MPA.[96] At the 2017 CCAMLR meeting there was disagreement as to whether the RSRMPA needed to be specifically adopted by the Commission (as advocated by China and Russia) or whether its endorsement by the Scientific Committee meant that it was in effect with no further action by the Commission required (as asserted by the US).[97] China and Russia also criticised the extent to which the Scientific Commission had provided 'advice' as required by CM 91-04[98] and Russia questioned the level of scientific information available to develop 'a scientifically based RMP in accordance with the aims and objectives of the MPA.'[99] This disagreement has yet to be resolved. In 2018, Russia continued its criticism of the monitoring requirements under the RSRMPA RMP, arguing that the proposed seven indicator species are insufficient and further disputed whether the catch limits for toothfish research within the MPA should be deducted from catch limits in the exploratory fishery outside the MPA.[100] China introduced a paper for the development of RMPs for CCAMLR MPAs,[101] which is notable in being the first ever paper developed by China and presented at CCAMLR. Controversially, a key proposal within the paper was that the *proponents* of an MPA would be responsible for

[93] On average a toothfish will live for 50 years and most albatross species live for more than 50 years.
[94] *Report of the Thirty-sixth Meeting of the Scientific Committee* (SC-CCAMLR XXXVI), Hobart, Australia, 16 – 20 October 2017 [5.45(iii)].
[95] Ibid, [5.43].
[96] Ibid, [5.45(iv)].
[97] *Report of the Thirty-sixth Meeting of the Commission*, Hobart, Australia, 16 – 27 October 2017 [5.76 – 5.82].
[98] Ibid, [5.76 – 5.79].
[99] Ibid, [5.80].
[100] *Report of the Thirty-seventh Meeting of the Commission*, Hobart, Australia, 22 October – 2 November 2018, [6.7 – 6.8].
[101] CCAMLR-XXXVII/32, The development of Research and Monitoring Plan for CCAMLR MPAs (2018) (submitted by the People's Republic of China).

developing and introducing an RMP.[102] As the US pointed out, this mischaracterises the CCAMLR MPA process under which MPAs are 'owned and to be implemented by all Members.'[103] The RSRMPA RMP was not adopted in 2019, despite urging from various Members, although it was noted that research and monitoring is nevertheless taking place within the RSRMPA.[104]

Development of OECMs under CCAMLR: Special Areas for Scientific Study

In a distinct but related development, CCAMLR has established a process for establishing time-limited Special Areas for Scientific Study in areas newly exposed following ice-shelf retreat or collapse.[105] This is a precautionary initiative that is intended to respond to the most visible impact of climate change in the Polar regions, loss of ice, and the exposure of new marine habitats and consequential alteration of ecosystem dynamics, including biological colonization. Originally proposed in the context of area-based protection in 2012,[106] the Special Areas for Scientific Study (SASS) are better described as an 'other effective area-based conservation measure' (OECM) rather than an MPA. An OECM is included alongside protected areas in Aichi Biodiversity Target 11,[107] and has been recently described by the parties to the 1992 Biodiversity Convention as 'a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values.'[108]

CM 24-04 (2017) was initially adopted in 2016, and permits the designation of SASS in any newly exposed marine area in the Antarctic peninsula region[109] following the retreat or collapse of an ice shelf, glacier or ice tongue where the ice loss constitutes more than 10 percent of its areal extent within any 10 year period from 2016 onwards or where a feature breaks up or disintegrates over a period that may be shorter than 10 years.[110] Special Areas for Scientific Study may be designated in two stages. Stage 1 SASSs are established following the notification by the Commission of the retreat or collapse of any ice shelf, glacier or ice tongue to all members, and are designated for a maximum period of two years. Stage 2 SASSs may be established on agreement by the Commission following detailed review by the Scientific Committee and its working groups, and shall be designated for a period of 10 years.[111] Within SASSs fishing must be carried out according to CCAMLR CM 24-01 and, unless otherwise agreed, the annual catch for all taxa (finfish and non-finfish) combined shall

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[102] *Report of the Thirty-seventh Meeting of the Commission*, Hobart, Australia, 22 October – 2 November 2018, [6.10(iv)].
[103] Ibid, [6.11].
[104] *Report of the Thirty-eighth Meeting of the Commission*, Hobart, Australia, 21 October – 1 November 2019, [6.34 – 6.40].
[105] CCAMLR Conservation Measure 24-04 (2017) *Establishing time-limited Special Areas for Scientific Study in newly exposed marine areas following ice-shelf retreat of collapse in Statistical Subareas 48.1, 48.5 and 88.3.*
[106] See CCAMLR-XXXI/30 (2012) *EU proposal for spatial protection of marine habitats and communities following ice shelf retreat or collapse in Subarea 88.3, Subarea 48.1 and Subarea 48.5* (European Union).
[107] 'By 2020, at least 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and *other effective area-based conservation measures*, and integrated into the wider landscape and seascape. CBD Decision X/2 (2010) *The Strategic plan for biodiversity 2011 – 2020 and the Aichi Biodiversity Targets*, Target 11.
[108] CBD Decision 14/8 *Protected areas and other effective area-based conservation measures* (2018), [2].
[109] Statistical Subareas 48.1, 48.5 and 88.3.
[110] CCAMLR CM 24-04 (2017) *Establishing time-limited Special Areas for Scientific Study in newly exposed marine areas following ice-shelf retreat or collapse in Statistical Subareas 48.1, 48.5 and 88.3*
[111] Ibid, [3 – 7].

be limited to 1 tonne per Member in each designated stage 1 or stage 2 SASS.[112] Vessels carrying out research within SASSs must notify the CCAMLR Secretariat of their intention, and, preferably, vessels should also inform the Scientific Committee of their intended research plans and share the results of their research. Each vessel must carry at least one scientific observer appointed in accordance with the CCAMLR Scheme of International Scientific Observation.[113] In addition to the controls under 1973/78 MARPOL relating to discharges in the Antarctic Special Area,[114] CM 24-04 stipulates that no discharging and no dumping of any type by any fishing vessel can take place within the MPA.[115] Transhipments (other than in an emergency) are prohibited,[116] and transiting fishing vessels are encouraged to inform the Secretariat of their intended transit prior to entering an SASS and provide details of their flag state, size, IMO number and intended course.[117] In 2017, the Larsen C Special Area for Scientific Study was established as a Stage 2 SASS[118] and, in 2019, the marine area adjacent to the Pine Island Glacier was designated a Stage 1 SASS.[119]

Future Prospects for MPAs under CCAMLR

There are three substantive proposals for MPAs that have been considered at CCAMLR meetings on a regular basis since 2012: the East Antarctic MPA (EAMPA); the Weddell Sea MPA (WSMPA) (covering domains 3 and 4); and the Antarctic Peninsula MPA in Domain 1 (D1MPA). All have broad support from CCAMLR members and, in 2019, the US articulated a general (but not universal) view that the 'proposals reflect best available science and should be established without further delay.'[120]

The EAMPA, proposed by Australia and the EU, was originally presented as the East Antarctic System of Representative MPAs in 2012 as a proposed network of seven MPAs,[121] revised to 4 and then 3 MPAs in 2013[122] and 2015[123] respectively. The proposal was changed from a closed system with multiple activities requiring Commission approval to an open system whereby activities are permitted until restricted or prohibited by CCAMLR.[124] Specific management provisions were removed from the proposal in favour of managing activities through existing CCAMLR processes.[125] Further revisions were made in 2017, including a change of name to ensure consistency with CM 91-04[126] and, in 2019, the proposal was revised yet again and modelled on the format of the RSRMPA.[127] Nevertheless, China and Russia have consistently raised concerns relating to the quality of available baseline data, the question of whether conservation measures relate appropriately to the objectives of

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112 Ibid [13, 14(i)].
113 Ibid, [14 (ii) and (iii)].
114 The Antarctic (defined as south of 60^0 South is a Special Area under Annexes I, II and V of the 1973/78 MARPOL. *International Convention for the Prevention of Pollution from Ships*, adopted on 2 November 1973 as modified by the Protocol of 1978 Relating Thereto 1340 UNTS 62 (entered into force 2 October 1983) (MARPOL 73/78).
115 CCAMLR CM 24-04 (2017) *Establishing time-limited Special Areas for Scientific Study in newly exposed marine areas following ice-shelf retreat or collapse in Statistical Subareas 48.1, 48.5 and 88.3* [16].
116 Ibid [17].
117 Ibid, [18].
118 Ibid, Annex B.
119 *Report of the Thirty-eighth Meeting of the Commission,* Hobart, Australia, 21 October to 1 November 2019, [6.6 – 6.14].
120 Ibid, [6.57].
121 *Report of the Thirty-first Meeting of the Commission,* Hobart, Australia, 23 October – 1 November 2012, [7.78 – 7.85].
122 *Report of the Thirty-second Meeting of the Commission*, Hobart, Australia, 23 October – 1 November 2013, [7.2].
123 *Report of the Thirty-fourth Meeting of the Commission,* Hobart, Australia, 19 – 39 October 2015, [8.42].
124 *Report of the Thirty-fifth Meeting of the Commission,* Hobart, Australia, 17 – 28 October 2016, [8.74].
125 Ibid.
126 *Report of the Thirty-sixth Meeting of the Commission*, Hobart, Australia, 16 – 27 October 2017, [8.74].
127 *Report of the Thirty-eighth Meeting of the Commission*, Hobart, Australia, 21 October – 1 November 2019, [6.41].

the proposal, and Russia has most recently argued that each area within the EAMPA proposal should[128] be managed by individual conservation measures rather than a single measure for the entire East Antarctic.[129] As Argentina pointed out, in 2018, the balance between the need to preserve the Antarctic ecosystem and rational use of marine living resources 'is being biased by going beyond the concept of best available science in requiring increasing amounts of scientific information – even when not available – to support decisions ensuing conservation, while very little is being required to authorise the use of those resources.'[130]

The WSMPA and D1MPA have been subject to less strident criticism within the Commission, but are nevertheless struggling to gain traction against Russian and Chinese general hostility to CCAMLR MPAs. In 2019, the EU and Norway presented a two phase WSMPA proposal (that has also been in development since 2012), which focused on the establishment of an initial MPA in Domain 3 and the western parts of Domain 4 with an extension, in phase 2, to the rest of the Domain 4 region.[131] This was unsuccessful despite the EU reminding CCAMLR members that the Scientific Committee concluded that the 2016 WSMPA proposal reflected best available science.[132] Although work began on D1MPA in 2014, a preliminary proposal was only presented by Argentina and Chile in 2017[133] so this proposal is at a somewhat earlier stage of development but the proponent states nevertheless expressed disappointment at the failure to adopt it at the 2019 meeting after failing to persuade China and Russia to join a consensus.[134]

The outlook for future MPAs within the CCAMLR Convention area is thus somewhat bleak. Owing to the consensus model of decision-making proposals can be blocked on the objection of one (or in this case, two) states notwithstanding the otherwise strong support from the Commission. This means that concessions are constantly being made and politics and pragmatism is in practice prioritised over science, to the detriment of CCAMLR conservation governance more generally.

MPAs Across the ATS

CCAMLR is a unique quasi-RFMO in its close legal and institutional relationship with the equivalent of the relevant regional seas convention for the region: the 1991 Environmental Protocol to the 1959 Antarctic Treaty[135]. This provides, at least in theory, an opportunity for close coordination in MPA policy and the management of multiple activities across the mandates of both instruments, and an initial joint workshop between the CCAMLR Scientific Committee and the Committee on Environmental Protection (CEP)[136] on MPAs was held in 2009.[137] However, in practice, the development of mutually supportive measures under the ATCM is proving challenging to achieve.

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[128] See for example ibid, [6.43] and *Report of the Thirty-seventh Meeting of the Commission*, Hobart, Australia, 22 October – 2 November 2018, [6.19 – 6.21].
[129] *Report of the Thirty-eighth Meeting of the Commission*, Hobart, Australia, 21 October – 1 November 2019, [6.42].
[130] *Report of the Thirty-seventh Meeting of the Commission*, Hobart, Australia, 22 October – 2 November 2018, [6.23].
[131] *Report of the Thirty-eighth Meeting of the Commission*, Hobart, Australia, 21 October – 1 November 2019, [6.47].
[132] Ibid, [6.50].
[133] *Report of the Thirty-sixth Meeting of the Commission*, Hobart, Australia, 16 – 27 October 2017, [5.63 – 5.69].
[134] *Report of the Thirty-eighth Meeting of the Commission*, Hobart, Australia, 21 October – 1 November 2019, [6.51 – 6.55].
[135] *Protocol on Environmental Protection to the Antarctic Treaty*, adopted 4 October 1991, 30 ILM 1461 (entered into fore 14 January 1998) (Environmental Protocol).
[136] Established by Article 11 of the 1991 Environmental Protocol.
[137] See SP 6 (2011) *Summary of the Work of the CEP on Marine Protected Areas* (ATS) (submitted to the 2011 ATCM).

Under Annex V of the 1991 Environmental Protocol protected areas can be designated in the form of Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs). Both may be designated in the marine environment (south of 60° South Latitude),[138] and CCAMLR CM 01-02[139] stipulates that CCAMLR contracting parties must ensure their fishing vessels are aware of the location and relevant management plan of all designated ASPAs and ASMAs. The prior approval of CCAMLR is a pre-requisite to designating any protected area with a marine component under CCAMLR.[140] ATCM Decision 9 (2005)[141] clarified that only ASPA/ ASMA proposals that affect or have the potential to affect marine harvesting or other CCAMLR activities or which have implications for CEMP sites must be submitted to CCAMLR for prior approval. In practice however, the Antarctic Treaty Consultative Meeting (ATCM) has largely delegated the development of a network of representative MPAs to CCAMLR. Nevertheless, as noted above, CM 91-04 encourages CCAMLR to cooperate with the ATCM in order to identify other relevant management measures to support CCAMLR MPAs.

Following the designation of the RSRMPA by CCAMLR in 2016 the profile of MPAs has risen significantly on the ATCM agenda. In 2017, the ATCM endorsed the CEP's recommendation that the Committee 'consider and discuss means and opportunities to look at the connectivity between ocean and land and to consider if and how complementary Measures within the framework of the Environmental Protocol, in particular Annex V, could support and strengthen marine protection initiatives.'[142] Cooperation between the CEP and CCAMLR on marine spatial protection and management was identified as a priority 2 action in the 2017 CEP Five-year Work Plan.[143] Most importantly, the ATCM adopted ATCM Resolution 5 (2017),[144] encouraging parties which are not CCAMLR members to comply with the terms of CM 91-05, and inviting the Committee on Environmental Protection to consider any appropriate action within the competence of the ATCM to contribute to the achievement of the objectives of the RSRMPA, including research and monitoring activities. However, over the last two years little progress has been made on implementing this resolution. At the 2018 ATCM, New Zealand introduced a working paper on harmonisation of marine initiatives across the ATS,[145] which recommended the establishment of an Intersessional Contact Group (ICG) to identify options to contribute to the RSRMPA as well as addressing harmonisation more generally.[146] There was no consensus to establish an ICG however, with some parties raising concerns as to 'the independent procedure and role of the ATCM from CCAMLR, the nature of MPAs as a tool to achieve CCAMLR objectives and principles, and the differences between conservation and protection.'[147] It was also suggested that an IGC should only be established after the RSMPA is adopted by CCAMLR.[148] New Zealand led informal intersessional work between 2018 and 2019[149] but

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138 1991 Environmental Protocol, Annex V, Art 2.
139 CCAMLR CM 91-02 (2012) *Protection of the values of Antarctic Specially Managed and Protected Areas.*
140 1991 Environmental Protocol, Annex V, Art 6(2).
141 ATCM Decision 9 (2005) *Marine Protected Areas.*
142 *Final Report of the Fortieth Antarctic Treaty Consultative Meeting*, Beijing, China, 22 May – 1 June 2017, [62]
143 *Report of the Twentieth Meeting of the Committee for Environmental Protection (CEP XX)*, Beijing, China, 22 – 26 May 2017, Appendix 1, CEP Five-year Work Plan 2017.
144 ATCM Resolution 5 (2017) *Establishment of the Ross Sea Region Marine Protected Area.*
145 Belgium, Chile, France, Germany, Netherlands, New Zealand, United States, WP 12 (2018), *Harmonisation of Marine Protection Initiatives across the Antarctic Treaty system (ATS)*.
146 *Report of the Twenty-first Meeting of the Committee for Environmental Protection (CEP XXI)*, Buenos Aires, Argentina, 13 – 15 May 2018, [154].
147 Ibid, [156].
148 Ibid.
149 See New Zealand WP 48 (2019), *Harmonisation of Marine Protection Initiatives across the Antarctic Treaty System*.

the proposed ICG was also not established in 2019.[150] Nevertheless, there are some positive signs of synergistic collaboration. The draft management plan for a new ASPA on Inexpressible Island in the Ross Sea and in the GPZ of the RSRMPA as developed by China, Italy and Korea was given prior approval by CCAMLR in 2019[151] and Ukraine has committed to proposing an ASPA in the Argentine Islands and is planning to harmonise the ASPA with D1MPA.[152]

Concluding Remarks

As states come together in New York to negotiate one of the most ambitious agreements in recent times, which has a significant area-based protection component, the experience of CCAMLR in establishing MPAs and other OECMs is instructive.

CCAMLR has undoubtedly led the way in developing a general framework for the establishment of MPAs beyond national jurisdiction and is at the early stages of implementing that framework. Its MPA initiatives are innovative with a strong focus on climate change resilience, and its protection of new ecosystems arising from the loss of Antarctic ice constitutes an important precedent for precautionary climate-focused area-based measures. Equally significant – although yet to be fully realised – is the cooperative partnership between CCAMLR, the ATS and potentially other organisations (such as the IMO), which establishes a platform on which mutually supportive synergistic measures can be developed allowing for the implementation of truly multi-functional MPAs.

On the other hand, after fifteen years of consistent work, CCAMLR 'lacks systematic MPA representation over the range of marine biogeographic regions'[153] and the general MPA framework 'remains under-developed, unsystematic and inconsistently applied by the parties.'[154] CCAMLR's consensus-based decision-making system allows for MPAs to be continuously blocked by (currently) two members, and annual revisions to the three proposals on the table and multiple concessions to China and Russia have failed to achieve the consensus needed for adoption. The first MPA to be adopted by CCAMLR, the SOISS, unfortunately set a poor precedent in that it deliberately excluded the local fishery and was understood by several members to support the notion that fisheries management and conservation were mutually exclusive activities. Although CM 91-04 (2011) establishes the purposes for which an MPA may be established as well as detailed process requirements, it does not define an MPA for the purposes of CCAMLR or set out criteria for selection. This omission has been a consistent source of criticism from states hostile (and indeed less hostile) to MPAs, and arguably has led to confusion, with multiple MPA proposals, different 'in design, philosophy, scientific approach, objectives and even terminology', being negotiated simultaneously.[155] The lack of clarity – at least from the perspective of some states – around how MPAs can contribute to fisheries management and their value beyond mere no-take measures has led to some suspicion as to the motives of proponent states, suggesting that MPAs could be used as a means to acquire or consolidate sovereign control in disputed

[150] *Report of the Twenty-second Meeting of the Committee for Environmental Protection (CEP XXII)* Prague, Czech Republic, 1 – 5 July 2019, [149 – 154]
[151] *Report of the Thirty-eighth Meeting of the Commission*, Hobart, Australia, 21 October – 1 November 2019, [6.3].
[152] Ibid, [6.5].
[153] Laurence Cordonnery, Alan D. Hemmings, Lorne Kriwoken, note 32, 731. See also Lucinda L. Douglass, Joel Turner, Hedley S. Grantham et al, 'A hierarchical Classification of Benthic Biodiversity and Assessment of Protected Areas in the Southern Ocean' 9 (2014) PLOS ONE e100551.
[154] Kevin A. Hughes and Susie M. Grant, "The spatial distribution of Antarctica's protected areas: A product of pragmatism, geopolitics or conservation need?" 72 (2017) *Environmental Science & Policy* 41 – 51, 42.
[155] Cassandra M. Brooks, Larry B. Crowder, Henrik Österblom et al, note 11, 4 – 5.

waters. Although there is little evidence that proponent states are motivated by such concerns, the remarkable coincidence between the MPAs proposed by states and the geopolitical interests of those states is clear to all.[156]

Perhaps the most important lesson to be learned by the negotiators of the ILBI and indeed other organisations engaged in developing MPA networks beyond national jurisdiction is that, inexpertly handled, bold new initiatives can challenge an institution's political equilibrium, leading to unintended consequences. In the case of CCAMLR, the establishment of an MPA network has brought to the forefront of debate the nature of CCAMLR as an institution. Is CCAMLR an RFMO with strong conservation attributes or is it a conservation organisation with a mandate to manage fisheries? What is the relationship between 'conservation' and 'rational use' for the purposes of the Convention? Engaging in robust debate around these questions need not be a divisive exercise as long as members maintain trust in the institution. The dysfunctional nature of the International Whaling Commission provides the clearest example of an institution in which members have lost trust and are unable to debate questions around its role and functions constructively. CCAMLR is far from dysfunctional. Yet the loss of trust by some members around the RSMPA process is concerning and all members bear a responsibility to try to address concerns through transparent processes and frank debate.

The adoption – which at the time of writing is far from certain – of the ILIB, establishing a global framework for the designation of MPAs, should assist in easing the concerns of some CCAMLR members relating to the legality and legitimacy of MPAs as a tool for marine conservation. However, if, as expected, the ILBI excludes the application of area-based management tools to fisheries, this may strengthen rather than ameliorate China and Russia's objection to using MPAs as a fisheries management tool within CCAMLR. Ultimately, this division of opinion stems from the extent to which fisheries management is viewed as part of or separate from marine environmental governance. This is a question that continues to divide policy and law-makers and fishers alike at all levels of governance – international, national, regional and local – and is unlikely to be answered by the ILBI or indeed by CCAMLR in the near future.

[156] This is not just an issue that affects CCAMLR MPAs, Hughes and Grant have found that two-thirds of ASPAs and ASMAs designated under Annex V of the 1991 Environmental Protocol have a claimant state as a proponent. See Kevin A. Hughes and Susie M. Grant, note 154.