

Managing the Antarctic Environment: The Evolving Role of the Committee for Environmental Protection

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ABSTRACT. In this paper we discuss the evolution of Antarctic environmental management, seen from our perspective as the first three chairs of the Committee for Environmental Protection (CEP). This body was established under the Protocol on Environmental Protection to the Antarctic Treaty adopted by the Antarctic Treaty Consultative Parties (ATCPs) in 1991. The ATCPs have over time placed considerable emphasis on managing the Antarctic environment. The protocol followed years of developing environmental standards and practices and set out tough new rules on environmental protection. The concomitant establishment of the CEP demonstrated the high ambitions of the parties for protecting the Antarctic environment. Following the entry in to force of the protocol in 1998, the CEP needed to put in place procedures and practices to enable it to fulfil its mandate effectively and efficiently. In the 12 years that have passed since then, the context in which the CEP is undertaking its work has changed. The Antarctic environment has been subject to various pressures, including climate change, which has resulted in regional rises in temperature and loss of ice shelves; introduction of nonnative species; and rapidly increasing numbers of tourists. National program activities have also increased markedly. Air access to Antarctica has become more prevalent with many new ice runways giving access to parts of Antarctica that had previously been logistically difficult to access. The role that the CEP plays and its capacity to deal with such challenges now merits close attention. If the CEP is to continue to meet its mandate of providing timely and defensible advice to the Treaty Parties on environmental protection in the Antarctic Treaty area, it needs to address two key issues: managing a burgeoning workload and timely access to data and information.

CONSIDERATION OF ENVIRONMENTAL ISSUES PRIOR TO THE ENVIRONMENTAL PROTOCOL

The Washington discussions, culminating in the signing of the Antarctic Treaty in 1959, did not spend much time on environmental issues.¹ This lack of consideration was inevitable as the negotiators had their focus firmly on the difficult political issues of the time, there was little environmental awareness in the general public, and there were no environmental lobby groups as we see them today. The Antarctic environment is only obliquely referred to in the text of the Antarctic Treaty (but disposal of radioactive wastes is prohibited). The most important environmental reference is in Article IX, paragraph 1(f),

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which states that the Antarctic Treaty Consultative Meetings (ATCM) can consider “preservation and conservation of living resources.”²

Gradually the Treaty Parties’ attention to the Antarctic environment would change. Landmark work was done in 1964 when, within just three years of the Antarctic Treaty entering into force, the ATCM adopted the Agreed Measures for the Conservation of Antarctic Fauna and Flora (Agreed Measures).³

The Agreed Measures consisted of 14 articles that recognised the scientific importance and unique nature of the region’s fauna and flora and noted the parties’ desire to achieve protection, facilitate scientific study, and (notably) ensure rational use of Antarctic fauna and flora. The Agreed Measures established the need for permits to be issued for any killing, wounding, capturing, or molesting of any native mammals or birds (including for scientific purposes), as well as for the designation of “specially protected species.”⁴ They also provided for the establishment of “specially protected areas” for places of outstanding scientific interest, as well as controls on the importation of nonnative species into Antarctica.⁵

The Agreed Measures provided the foundation for managing the Antarctic environment for almost 30 years. Under the provisions of the Agreed Measures numerous specially protected areas were established in Antarctica. It was not until 1991 that the Agreed Measures were superseded by the more comprehensive Protocol on Environmental Protection to the Antarctic Treaty.⁶

Once the Agreed Measures were in place, the delegates from the 12 original signatory nations seem to have felt that this part of the management of Antarctica now was adequately covered. Until the negotiations started in 1978 on the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) there were no major new environmental initiatives from the ATCM.⁷ Admittedly, the Convention for the Conservation of Antarctic Seals was signed in 1972, but at that time there was no sealing industry in the Antarctic (indeed, there has never been commercial sealing since the adoption of that convention).⁸

It was, however, a major new development when CCAMLR entered into force in 1980. This convention, which has at its core “the Conservation of Antarctic marine living resources . . . [where] the term ‘conservation’ includes rational use” was groundbreaking in that it took an ecosystem approach to managing fisheries.⁹ This was far ahead of such conventions elsewhere in the world. It is a great credit to those involved in the negotiations that the convention was agreed: the commercial krill fishery was well established at the time by vessels from Eastern Europe.

At the same time that CCAMLR was established, interest was growing around how to regulate any future exploitation of Antarctic mineral resources. Mineral resources had been considered during the negotiation of the Antarctic Treaty but were not specifically addressed in 1959 for practical and political reasons. The subject of mining was on the agenda for the ATCM in 1972, and thereafter several expert meetings were held. The Scientific Committee for Antarctic Research (SCAR) established its Environmental Impact Assessment of Mineral Resource Exploration and Exploitation in Antarctica (EAMREA) group to provide advice to the ATCM on environmental, scientific, and technical issues related to mineral activities in Antarctica.¹⁰ The EAMREA would evolve in 1981 to become the group of specialists on Antarctic Environmental Implications of Possible Mineral Exploration and Exploitation (AEIMEE).¹¹

Right from the early stages of these discussions, environmental considerations were explicitly enunciated, and the ATCM in 1972 agreed to Recommendation VII-6, which paired “protection of the environment” with the “wise use of resources.”¹² Even though there was general agreement that no commercial mining activity would take place in Antarctica in the foreseeable future, the Antarctic Treaty Consultative Parties formally agreed in 1981 to negotiate a convention to regulate mining activities. Indeed, the motivation for starting this difficult process was to solve a potential future problem before it materialised as a concrete political issue.

The Fourth Special Antarctic Treaty Consultative Meeting to discuss what would eventually become the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) met for the first time in Wellington in 1982 and concluded its work in 1988, after 12 formal meetings. During the 1980s the number of Antarctic Treaty Consultative Parties grew significantly. It is arguable that the main driver for this growth was the perception from those not active in Antarctica that there were riches in the Antarctic that a few select nations (the original 12 Antarctic Treaty Parties) were preparing to distribute among themselves. In the United Nations “The Question of Antarctica” was placed on the agenda and remained a periodic agenda item in the UN until the mid-2000s. Other nations became active in the Antarctic, carrying out scientific research programs and achieving the status of Consultative Parties (Figure 1).

The discussions of mining in the Antarctic also provoked the interest of environmental nongovernmental organizations (NGOs), which began to place Antarctica higher on their agendas. An umbrella organization of many NGOs, the Antarctic and Southern Ocean Coalition

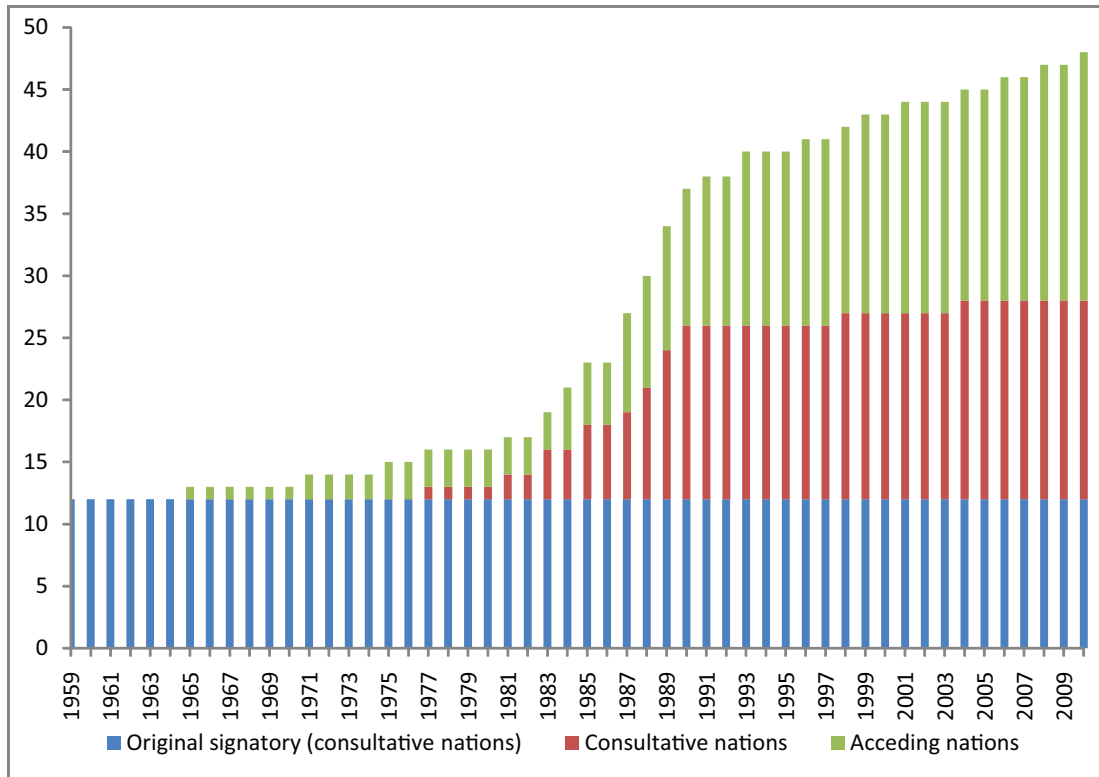


FIGURE 1. The number of Treaty Parties over time, divided into original signatory nations, consultative nations, and acceding (nonconsultative) nations. Note the growth in membership of the Antarctic Treaty during the 1980s.

(ASOC), was formed in 1978. As an observer to Antarctic Treaty Consultative Meetings, ASOC became increasingly active as the CRAMRA negotiations proceeded. The discussions provoked considerable passion, and on occasion, delegates to the ATCM had to pass lines of protesters on their way to meetings, a sight not seen before or after the CRAMRA negotiations.

The final negotiated text on CRAMRA was necessarily a compromise, and it raised difficulties for some Antarctic Treaty Parties.¹³ One major challenge was how to balance the political interests of claimants and nonclaimants. Another, which became the most strongly voiced criticism in the end, was that the convention would open Antarctica up for mineral activities which, in turn, would harm the environment.

In 1989 Australia and France announced that they would not sign CRAMRA, an announcement that would herald the most critical period in the history of the Antarctic Treaty. In 1977 the Antarctic Treaty Consultative

Parties had agreed to a voluntary moratorium on mineral activity, as long as progress was being made on an agreement to regulate such activities. The announcement by Australia and France had now disrupted this process, and the voluntary moratorium on mineral activities no longer applied. In theory, any party could now start such activities, a situation that would likely lead to conflict among the ATCPs. There was also a great deal of concern that the treaty itself could collapse.

There was much uncertainty about how nations would proceed in relation to Article XII, paragraph 2, of the Antarctic Treaty, which provided that 30 years after its entry into force (that is, in 1991), a party could ask for a meeting to review the operation of the treaty and thereby provide the opportunity for withdrawal from the treaty. How the parties would view the options provided by Article XII was not clear in 1989, and in the UN, there was much pressure on the Antarctic Treaty Parties from those countries not within the "Antarctic club."

ESTABLISHMENT OF THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY AND THE COMMITTEE FOR ENVIRONMENTAL PROTECTION

With all of these issues in the background, the 15th ATCM in Paris in 1989 was a difficult meeting. Nonetheless, it started a process that led to the successful adoption in Madrid only two years later of the Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol). The Antarctic Treaty Consultative Parties were conscious of the need to quickly find a way back to consensus, and it became clear that the only way to achieve this was by agreeing to legally binding rules for preserving the Antarctic environment and a ban on mineral activities.¹⁴ It is probable that the political pressures that had developed sped up the process of negotiating the Madrid Protocol.

The protocol itself is quite simple in its form. It set down a number of environmental principles governing all activity in the Antarctic, and it established a new institutional body, the Committee for Environmental Protection (CEP). The protocol built on the 1964 Agreed Measures, and it picked up environmental management concepts that had been developed during the CRAMRA negotiations, such as the requirement for environmental impact assessments of proposed activities.

The protocol designates Antarctica as a natural reserve, devoted to peace and science, and sets forth legally binding environmental protection principles applicable to human activities in Antarctica, including obligations to accord priority to scientific research. The protocol prohibits all activities relating to Antarctic mineral resources, except for scientific research, and provides that this prohibition cannot be amended by less than unanimous agreement for at least 50 years following the entry into force of the protocol. The protocol requires parties to protect Antarctic fauna and flora and imposes strict limitation on disposal of waste in Antarctica and discharge of pollutants into Antarctic waters. It also requires application of environmental impact assessment procedures to activities undertaken in Antarctica, including nongovernmental activities, for which advance notice is required under the Antarctic Treaty. Parties are further required to provide for response to environmental emergencies, including the development of joint contingency plans.

Detailed mandatory rules for environmental protection pursuant to these requirements are incorporated in a system of annexes, forming an integral part of the protocol. Specific annexes on environmental impact assessment,

conservation of Antarctic fauna and flora, waste disposal and waste management, and the prevention of marine pollution were adopted with the protocol. A fifth annex on area protection and management was adopted later in 1991 by the Antarctic Treaty Consultative Parties at the 16th Antarctic Treaty Consultative Meeting. Provision is also made for additional annexes to be incorporated following entry into force of the protocol. Accordingly the parties added in 2005 a sixth annex, “Liability for Environmental Damage.”

Tensions within the Antarctic Treaty System eased in 1991 when the negotiations of the Madrid Protocol were concluded. In the ensuing years, however, there was an increasing sense of impatience among many parties with the drawn out process of ratification. In the three Antarctic Treaty Consultative Meetings from 1995 to 1997, prior to the entry into force of the protocol in 1998, a weeklong meeting was set aside for what was termed the Transitional Environmental Working Group (TEWG). These meetings were held so that the provisions of the protocol could be informally implemented prior to its entry into force and to prepare the way for the CEP to start its work efficiently. Thus, the development of draft rules of procedure at the 1997 TEWG meeting in Christchurch allowed the CEP to start its work effectively in 1998 without a focus on procedural issues.

When the protocol finally entered into force in 1998, the first meeting of CEP was then held in Tromsø. At this meeting the parties demonstrated considerable will to make progress on substantial environmental issues. Procedurally, a number of matters relating to the rules of procedure also had to be clarified, such as which invited experts and observers were able to attend CEP meetings, the establishment of CEP subsidiary bodies, and submission of documents to the CEP.¹⁵ The committee had also to establish its own modes of work, and the ATCM and the CEP had to fine-tune their relationship. Both of these issues are discussed further below.

The arrival of CEP as a new body within the Antarctic Treaty System also meant clarifying its role in relation to other already established bodies, such as SCAR, the Scientific Committee for the Conservation of Antarctic Marine Living Resources (SC-CAMLR) established under CCAMLR, and the Council of Managers of National Antarctic Programs (COMNAP).

The SCAR was—and still is—the primary body for providing scientific advice to the ATCM. Over the years SCAR had also established a role of giving advice on environmental management issues through one of its groups of specialists, the Group of Specialists on Environmental

Affairs and Conservation (GOSEAC). Initially, there were some difficulties in the relationship between SCAR and the CEP, especially over the role of GOSEAC, but the rapid development of environmental management competence within the CEP saw SCAR gradually withdraw from its practice of providing environmental advice, and its role has become more focused on scientific advice.

The relationship between the CEP and COMNAP evolved more smoothly, aided by the considerable overlap between delegations to CEP meetings and staff employed by national Antarctic programs with environmental management responsibility. Over the past 12 years this has often seen the CEP and COMNAP develop common approaches to problem solving. The relationship between the CEP and SC-CAMLR is discussed below.

THE GROWTH OF WORK OF THE CEP

As the CEP matured over the first decade of the twenty-first century, its workload increased significantly (and continues to do so). It had become standard practice by then for the annual ATCM to be held over two weeks, with the CEP meeting in the first week, adopting its report on the last day, compiling, translating, and printing it over the weekend and reporting to the plenary of the ATCM at the beginning of the second week.

The number of working papers and information papers presented to the committee has grown significantly over the period of its operation, with just 12 working papers considered at its first meeting and some 48 at its most recent (Figure 2). The number of information papers

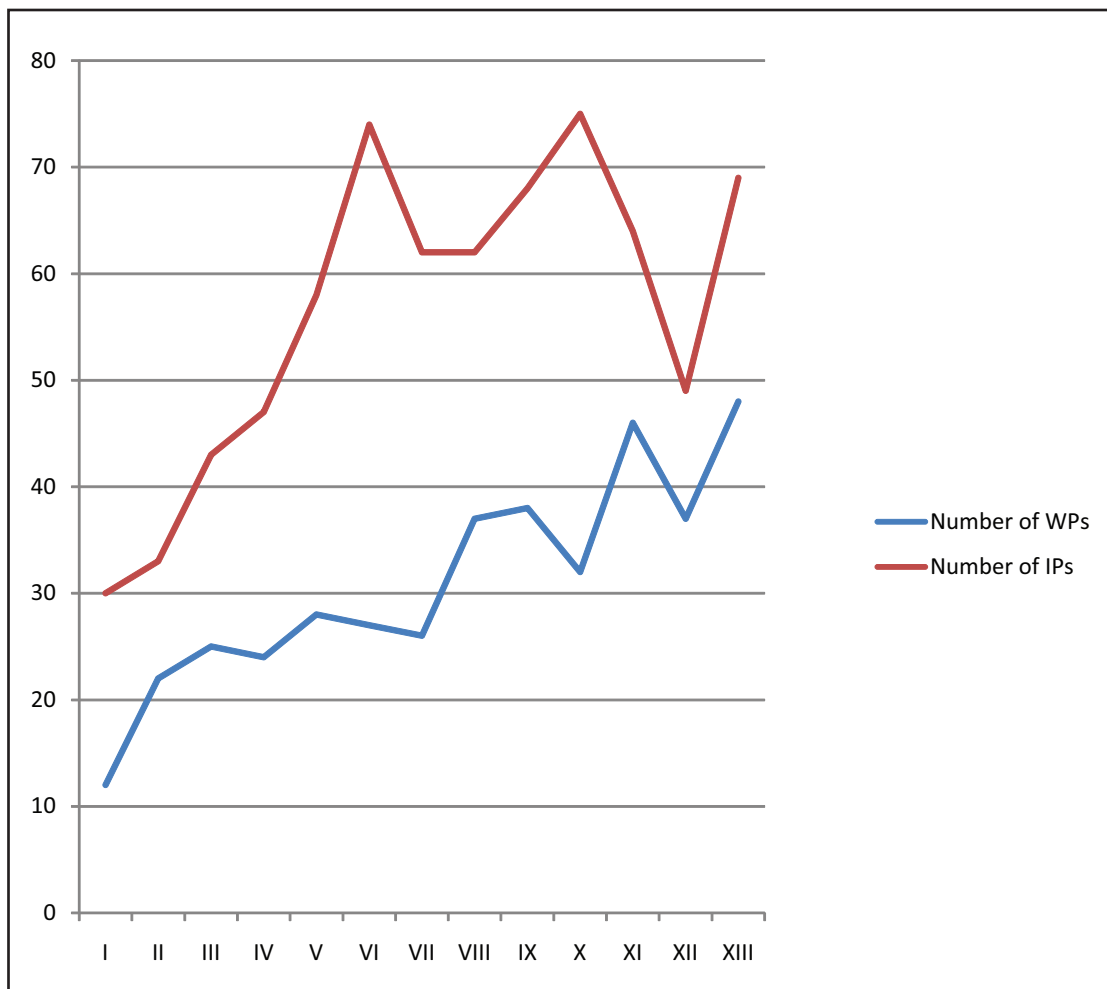


FIGURE 2. The number of working papers (WPs) and information papers (IPs) presented to each meeting of the CEP.

has always exceeded the number of working papers, but these too have grown in number. The committee's practice has been to consider all working papers because they contain matters of substance on the committee's agenda or required discussion on issues on which the committee was able to provide recommendations to the ATCM. Although the committee was not necessarily required to do more than "note" information papers, the practice of many members and committee observers remains to introduce and speak to most (if not quite all) of their submitted papers.

This growth in the number of papers has also affected the scale of the CEP report. The number of paragraphs in its report might be taken as a simple measure of the amount of work undertaken by the committee at its annual meetings (Figure 3). This in itself takes up time in that each of the paragraphs of the CEP's report has to be agreed by the committee before it closes its business each year. Adoption of the CEP's report now takes close to one full day of its weeklong meeting.

As a result, managing the business of CEP meetings has become increasingly complex and, to an extent, has limited the committee's ability to make progress on

intractable issues or provide adequate time for discussion of high-priority issues (see below for discussion of the CEP's informal workshop in 2006 in Edinburgh, which, among other things, recommended streamlining the business of CEP meetings and prioritising matters for its future consideration).

ENVIRONMENTAL IMPACT ASSESSMENTS

A significant area of work for the committee emerged as parties began to fulfil their obligations under Article 8 and Annex 1 of the protocol, and the CEP established its practice for consideration of draft comprehensive environmental evaluations (CEEs; and other matters related to environmental impact assessment).

Article 8 of the protocol requires parties to ensure that "activities [to be undertaken in Antarctica] . . . shall be subject to the procedures set out in Annex I for prior assessment of the impacts of those activities on the Antarctic environment or on dependent or associated ecosystems according to whether those activities are identified as having: (a) less than a minor or transitory impact; (b) a minor or transitory impact; or (c) more than a minor or transitory



FIGURE 3. The total number of paragraphs in each of the CEP's annual reports.

impact.” If an activity is determined to have “more than a minor or transitory impact,” the party is required to prepare a draft CEE, which is to be circulated to all parties and at the same time forwarded to the CEP. Annex I provides that “no final decision shall be taken to proceed with the proposed activity in the Antarctic Treaty area unless there has been an opportunity for consideration of the draft Comprehensive Environmental Evaluation by the Antarctic Treaty Consultative Meeting on the advice of the Committee.”

This provision is (like other elements of the protocol) open to interpretation. Having the “opportunity for consideration” does not *necessarily* mean that the committee must spend time at its meeting discussing a draft CEE that has been circulated.

At its first meeting in Tromsø in 1998, one of the significant issues discussed was the role of the CEP in considering CEEs and the interplay between the party providing the draft CEE, the CEP, and the ATCM. The report of the committee’s first meeting records at paragraph 25 the following:

The majority of delegations expressed the view that given the potential environmental significance of major activities the CEP should provide advice to the ATCM on all draft CEEs. The US was of the view that the CEP should take the opportunity to review draft CEEs only when a member of the Committee believed that there was a particular scientific, technical, or procedural matter requiring consideration. Chile was concerned with the need for the future practice of the CEP in this matter to conform strictly with the provisions of the Protocol and its Annex I. The Committee agreed that the Protocol gives the CEP the opportunity to consider and give advice on scientific, technical or procedural issues on draft CEEs. Furthermore, as laid down in Article 3(4) of Annex I, the Committee recognized that draft CEEs are to be forwarded to the CEP at the same time as they are circulated to the Parties, and at least 120 days before the next ATCM for consideration as appropriate.¹⁶

At the second meeting of the CEP in Lima in 1999 the committee agreed to formalise an agenda item: “Consideration of Draft CEEs forwarded to the CEP in accordance with Paragraph 4 of Article 3 of Annex I to the Protocol.” From these early deliberations arose the standard practice of the CEP considering all draft CEEs provided by parties and then preparing formal advice to the ATCM on these draft CEEs. Thus, the CEP began its process of formal evaluation of the environmental impacts of activities in Antarctica subject to a CEE, and at its third meeting in The Hague in 2000, the CEP provided formal advice

to the Special ATCM on a draft CEE from Germany for “recovering a deep ice core in Dronning Maud Land, Antarctica.”¹⁷

We note in passing that there was no regular ATCM in The Hague in 2000, so this was a time when there were two years between regular ATCMs, a situation that existed in the past and could exist again in the future. Instead of the regular ATCM, a Special ATCM, the 12th, was arranged to follow the end of CEP meeting to consider the CEP report and the draft CEE. In this way a practice was instituted that overcame the problem of a year without a regular ATCM, which could have caused corresponding delays in planning Antarctic activities. Since 2000 there have been annual regular ATCMs, so this situation has not arisen again.

Consideration of the German CEE was followed by the more controversial proposal of the Russian Federation to penetrate Lake Vostok by drilling more than 3,500 m below the surface of the ice in East Antarctica. At the 2002 meeting in Warsaw the Russian Federation presented a working paper containing a draft CEE for their proposed drilling, but it had not been circulated in conformity with Annex 1 of the protocol. Although discussion on the proposal took place at CEP V, formal consideration was deferred until the following meeting in 2003 in Madrid, where the CEP considered not only the draft CEE of the Russian Federation but also a draft CEE from New Zealand for sedimentary rock drilling at Cape Roberts in the Ross Sea region and a draft CEE for a new station to be built by the Czech Republic (which had not yet ratified the protocol, and was therefore not legally bound to comply with its provisions).

The requirement of the protocol for the CEP to give advice on a draft CEE is one of the core functions of the committee. Consideration of draft CEEs took a considerable portion of the time allocated to the CEP’s agenda, and concern continued to grow about the workload of the CEP. As the procedures of the CEP evolved, it instituted mechanisms that allowed for initial consideration of draft CEEs between meetings, through the formation of an Intersessional Contact Group, with formal consideration in the annual committee meeting.¹⁸ By the time of the Baltimore meeting in 2009 (CEP XII), nine draft CEEs had been formally considered by the CEP.

Although consideration of CEEs provided the highest level of scrutiny by the CEP of proposed activities in Antarctica, parties began the practice of also submitting initial environmental evaluations to the committee as a means of providing information and guidance on environmental impact procedures and evaluation. Annex I of the protocol

provides that “unless it has been determined that an activity will have less than a minor or transitory impact, or unless a Comprehensive Environmental Evaluation is being prepared . . . , an Initial Environmental Evaluation shall be prepared. It shall contain sufficient detail to assess whether a proposed activity may have more than a minor or transitory impact . . . If an Initial Environmental Evaluation indicates that a proposed activity is likely to have no more than a minor or transitory impact, the activity may proceed.” At its first meeting in Tromsø in 1998, the CEP considered a number of papers providing guidance on preparing environmental impact assessments under the protocol. In its second meeting in 1999 the CEP recommended, and the ATCM adopted, “Guidelines for Environmental Impact Assessment in Antarctica,” and these were revised by the CEP in 2005.¹⁹

MANAGEMENT PLANS FOR PROTECTED AREAS

Another significant area of “statutory” work conducted by the CEP, which also grew significantly during the first decade of the twenty-first century, was the consideration of management plans under Annex V, “Area Protection and Management.” Management plans are required for all Antarctic Specially Protected Areas (ASPAs; Article 3 of Annex V of the protocol) and Antarctic Specially Managed Areas (ASMAs; Article 4 of Annex V of the protocol), and all management plans are required to be reviewed every five years. By the end of 2009 there were 71 ASPAs and 7 ASMAs declared under the provisions of the protocol.

In 2000 the parties adopted “Guidelines for the Implementation of the Framework for Protected Areas Set Forth in Article 3, Annex V of the Environmental Protocol” to assist parties in developing management plans for the CEP’s consideration.²⁰ With the growing maturity of the CEP and the parties’ compliance with the provisions of the protocol, interest grew in designating ASMAs and developing management plans for them.

The first ASMAs to be formally designated by the ATCM (in 2004) were for the Dry Valleys in Southern Victoria Land and at Cape Denison, Commonwealth Bay (although the designation “ASMA 1” was reserved for the proposed ASMA at Admiralty Bay, which had been under development for almost a decade and which was eventually designated in 2006). With this increased interest in designating ASMAs and the need to refine the CEP’s consideration of protected area management plans, the parties adopted in 2008 the “Guide to the Presentation of Working Papers Containing Proposals for Antarctic Specially

Protected Areas, Antarctic Specially Managed Areas or Historic Sites and Monuments.”²¹

The requirement to not only consider plans of management for new protected areas but also to review all management plans every five years resulted in a significant growth in work for the CEP. Ultimately, this led to the CEP developing its first formal subsidiary body tasked with the consideration of management plans developed under Annex V to the protocol (see discussion below).

A ROLLING REVIEW OF THE ANNEXES TO THE PROTOCOL

At the CEP’s fourth meeting in Saint Petersburg in 2002, 11 years after the adoption of the protocol, the CEP decided to conduct a rolling review of the annexes to the protocol: “The CEP noted that its work, most recently the intersessional considerations of Specially Protected Species, had shown that improvements could be made to the Annexes of the protocol. The Committee therefore decided to conduct a rolling review of the Annexes, starting at CEP V with Annex II.”²² This was endorsed by the ATCM. Article 12 of the protocol outlines the functions of the committee, and Article 9 provides the framework for amendments to the annexes to the protocol. In good faith, the CEP set out to instigate a process whereby the annex would be reviewed by the committee and recommendations forwarded to the ATCM to amend the annex and improve the operation of the annexes in light of new information or experience in implementation or changes in best practice approaches to environmental management. It was initially thought that each review would take two years.²³

The reality of amending the annexes is borne out by the fact that it was not until 2009 in Baltimore that the parties finally accepted the CEP’s recommendations to amend Annex II to the protocol (Measure 16 [2009], “Amendment of Annex II to the Protocol on Environmental Protection to the Antarctic Treaty: Conservation of Antarctic Fauna and Flora”).²⁴ What was accepted in Baltimore was a much-refined and reduced set of proposed amendments to the annex than had originally been presented by the CEP to the ATCM in 2004.

What had been envisaged as a practical look at how the CEP and the Antarctic Treaty Parties could meet their obligations under the protocol became a very highly politicised and complex negotiation over the scope not only of the annex but of the protocol itself. The most intense discussions and negotiations were over the name of the annex and definitions of flora and fauna for the purposes of the annex.

How marine species were to be dealt with, whether microbes should be covered and how, and what was covered by accidental or deliberate introduction (and many other matters), all became the subject of intense and long deliberation, first in the CEP (to 2004) and subsequently in the ATCM (to 2009). Some parties felt that reviewing the annexes amounted to a renegotiation of the protocol itself (despite its explicit facility for review), and others were concerned that amendments to the annexes required complicated domestic legal actions, which they felt were not warranted. Perhaps, in hindsight, it was unwise to begin the rolling review with Annex II, which intersects with other parts of the Antarctic Treaty System and with other international instruments.

Sanchez and McIvor considered that after the conclusion of deliberations on Annex II the most likely candidates for further review would be Annex I (“Environmental Impact Assessment”) or Annex V (“Area Protection and Management”), for which a considerable amount of practice has developed among parties and within the CEP.²⁵ Although this suggestion remains apposite, at the time of writing this paper, the CEP had not discussed the issue of making any further amendments to the protocol’s annexes. Although there are several elements of the annexes that might merit attention and improvement, the political appetite to begin amending another annex is unlikely to return for some time.

A GROWING MATURITY

After more than a decade of operation, the role of the CEP, and to an extent the importance of the role it plays, is worthy of some attention. As has been noted in this paper, the Antarctic Treaty Parties have, over time, placed considerable emphasis on managing the Antarctic environment. Negotiation of and agreement on the Environmental Protocol could be regarded as a zenith in this regard: the culmination of years of development of environmental standards and practices synthesised into a single agreement that set out tough new rules on environmental protection. The concomitant establishment of the CEP with its advisory role to the Treaty Parties on the effectiveness of implementation of the protocol was also a clear demonstration of the importance that the parties place on setting high standards of protection for the Antarctic environment.

As a new body, it was important for the CEP to establish itself and put in place procedures and practices that allowed it to fulfil its mandate effectively and efficiently. The

means and the success by which the CEP has established itself have been covered earlier in this paper.

However, since the Environmental Protocol was agreed in 1991 and even since the CEP first met in 1998, the context in which the CEP has undertaken its work has changed. The Antarctic environment has experienced significant change and has been subject to additional pressures. Such pressures are becoming more evident and arguably more urgent in their need for attention.

Since 1991 shipborne tourists making landings in Antarctica have increased from 6,704 to 32,198.²⁶ The average annual mean temperature on the Antarctic Peninsula has increased by more than 2.5°C over the past 50 years.²⁷ There has been a significant loss of ice shelves,²⁸ and nonnative species have been identified in Antarctica.²⁹ National program activities have also increased, with eight new bases being established around the continent.³⁰ Air access to Antarctica has become more prevalent, with approximately 11 new ice runways (permanent and temporary) constructed.³¹

These environmental pressures are very real and likely only to become more intense over time. As a result, the role that the CEP plays and its capacity to deal with the challenges being faced by the Antarctic environment merit close attention. If the CEP is to continue to meet its mandate of providing timely and defensible advice to the ATCM, it must continue to address two key issues: the capacity of the committee to manage a burgeoning workload and its access to timely and defensible data and information.

PRIORITISING THE CEP’S WORKLOAD

Over the decade or so of the CEP’s operation, it has evolved a number of means to facilitate its work. These include establishing ad hoc informal discussion groups among those parties wishing to be involved that communicate by e-mail between meetings (these are known as Intersessional Contact Groups), the holding of workshops (usually immediately ahead of annual CEP meetings to ensure maximum attendance), and the development of an online discussion forum. The Intersessional Contact Groups and online discussion forums have provided useful mechanisms to progress the work of the CEP. However, having no formal status, their recommendations and deliberations still require the committee’s endorsement, a fact that sometime leads to prolonged and often repetitious discussion.

In June 2006, immediately prior to its ninth meeting in Edinburgh, the committee held an informal Workshop

on Antarctica's Future Environmental Challenges.³² Informal workshops such as these have provided useful and productive mechanisms for exchanging ideas and generating initiatives for the committee's further consideration.

A central issue of the Edinburgh workshop was the CEP's workload and the committee's ability to address high-priority and emerging environmental issues. A number of potential options for managing this issue were proposed, including means to prioritise the CEP's work and making better use of the CEP's informal subsidiary bodies.

Although it seemed clear to participants in the workshop that there was a need to manage the burgeoning workload of the CEP and provide focus on priority environmental issues, the adoption of a clear prioritised work plan has taken time to emerge. In its consideration of the outcome of the workshop, CEP IX agreed to develop a prioritised five-year work plan. Following intersessional consultation, a draft prioritised work plan was presented to CEP X, at which the committee agreed to implement it on a trial basis.

An important principle that emerged during the development of the CEP's work plan was that prioritising issues on the CEP's agenda needed to be based on the severity of actual or perceived threats to the Antarctic environment and its biota. Although this would appear to be an obvious approach to take, it did require a deliberate shift in the approach to the work being taken by the committee. Up to that point the committee had simply been adding new issues to its meeting agendas as they arose, an approach that resulted in the CEP attempting to address a growing raft of issues at every meeting, irrespective of the actual threat posed to the Antarctic environment.

The act of recognising that some issues demanded more immediate attention than others has had two results. First, the higher-priority issues have received greater and more focussed attention, including greater discussion time at the CEP's annual meetings. Second, issues considered to be of a lesser threat to the environment (for example, waste management, which national Antarctic programs largely have in hand) have been removed from the CEP's agenda (though they can be reinstated as required).

The CEP's prioritised five year work plan should provide two additional benefits. First, it allows the CEP's observers and invited experts to see in advance when the CEP is likely to tackle issues in which they have an interest and thus plan their own contributions to the CEP's work. The work plan should also allow the ATCM to anticipate when it might receive advice from the committee on key issues. Concomitantly, such an approach should also provide the ATCM with an opportunity to comment on and influence

the prioritisation of the CEP's work in accordance with the ATCM's own interests and priorities. The interaction between the CEP and the ATCM will be discussed later in this paper.

To date, the five-year work plan has been used somewhat tentatively by the CEP, and options for a more rigorous approach to setting the CEP's work priorities through the five-year plan need to be explored. These might include allocating more time to discussing the matter of work prioritisation at the CEP's annual meeting and making the work plan more widely available to CEP members and observers through the CEP's Web site (rather than the current practice of simply appending the work plan to the CEP's annual report).

The second option for tackling the CEP's workload, on which some action has recently been taken, involves the establishment of topic-related working groups. The CEP's rules of procedure provide for the establishment of subsidiary bodies with the ATCM's approval, though there has been an element of reluctance to do so.³³ Arguably, the principle reason for the CEP and ATCM being reluctant to establish formal subsidiary bodies has been the requirement in the CEP's rules of procedure for such bodies to operate in the four official languages of the Antarctic Treaty.³⁴ The perceived impediment has been the substantial costs involved in having interpretation and translation facilities available for intersessional meetings of these subsidiary bodies.

In somewhat characteristic fashion, albeit after a few years of consideration, the CEP found a practical solution to this challenge. In 2009 the CEP recommended to the ATCM the establishment of a subsidiary body to manage the consideration of protected and managed area management plans (Subsidiary Group on Management Plans, SGMP). As discussed above, consideration of management plans for such areas had for some time dominated meetings of the committee. By delegating this work to a permanently established subgroup with a dedicated convenor, the CEP anticipated freeing up a substantial amount of time at its annual meeting for other discussions. In presenting this case to the ATCM, the CEP overcame the issue of interpretation and translation by suggesting that all intersessional work be conducted by e-mail and use of the CEP online discussion forum in one common language (English), with the product of its work, i.e., its report to the CEP, being translated into the four languages of the treaty sufficiently well in advance so that all participants had the opportunity to view it in their preferred language, prior to its consideration by the CEP. The SGMP has been in operation for the last two years,

and the anticipated benefits have already been realised in the committee's work.

These are perhaps the most substantive examples of how the CEP has had to adapt in order to ensure it is giving adequate attention to issues of high priority for the Antarctic environment. But in the opinion of the authors the CEP cannot afford to rest there. Additional measures need to be pursued, including the establishment of additional subsidiary bodies or experts groups on issues considered to be a high priority.

AVAILABILITY OF DATA AND INFORMATION

Although the prioritisation of its agenda will hopefully continue to ensure that the CEP is addressing those matters most critical to the Antarctic environment, there remain additional constraints that the CEP has recognised need further attention. Unlike the SC-CAMLR established under the Convention on the Conservation of Antarctic Marine Living Resources (arguably the CEP's "sister committee" within the Antarctic Treaty System), the CEP does not have dedicated resources that it can draw on. The SC-CAMLR can seek, with the commission's endorsement, dedicated funding for intersessional work, such as the holding of workshops and subsidiary scientific meetings. The SC-CAMLR also has dedicated support within the CCAMLR Secretariat, including a science officer and data management support. The CEP has no access to such resources. There is no "environmental officer" within the Antarctic Treaty Secretariat's staff and no dedicated data management resources (although secretariat staff spend a considerable proportion of their effort on CEP business). Yet the expectation remains (appropriately) that the CEP provide the ATCM with timely, scientifically defensible advice on the management of the Antarctic environment.

At present, the CEP does not routinely review or consider a prescribed set of data or information or summary reports on aspects that would support its policy advisory role. It would be expected of a fully functioning committee that it routinely have access to a range of environmental information for its review and on which it can base its advice. This might include, for example, status and trends of key species, trends in tourism numbers (e.g., at key locations), nonnative species data, and climate change reports (e.g., regional climate trends and environmental responses). At present, no mechanisms exist for the CEP routinely to have such information made available to it.

Perhaps part of this problem lies more in the fact that the CEP has not yet been able to agree on what its information requirements are, rather than the means of accessing it. This has been and remains to a large extent a fundamental challenge for the CEP and is a matter deserving of priority attention by the committee.

In the absence of its own data and information management resources, the CEP has been required to seek the advice of, as well as data from, other sources and organisations. Key among the organisations with which the CEP has needed to forge a relationship is SCAR. The Protocol on Environmental Protection to the Antarctic Treaty recognises SCAR's expertise and advisory role (to both the CEP and the ATCM) in a number of its articles.³⁵ The SCAR has played a significant advisory role to the ATCM since the early 1960s, including in the development of the Agreed Measures of 1964, the negotiations of CCAMLR, and the development of other ATCM recommendations and initiatives.³⁶

Notwithstanding this central role played by SCAR for several decades, the establishment of the CEP in 1998 has forced a reassessment of the various relationships within the ATS. The establishment of the CEP usurped much of the advisory position that SCAR had maintained since the entry in to force of the Antarctic Treaty. It has been necessary for both the CEP and SCAR to adjust to a new way of working. This has been in large part tempered by the time it has taken for the CEP to establish itself and begin to stand on its own feet.

However, SCAR also has limited resources and relies on its membership to provide their support to SCAR's work mostly on a voluntary basis. The SCAR's ability to respond to and support the CEP's needs is limited and needs to be carefully managed, and it is far from ideal for the CEP to be wholly dependent upon others for making progress on its work. It remains important for the CEP to continue to examine its own data and information needs and how these might be met.

EMERGING OPPORTUNITIES

Opportunities are emerging that may help improve the situation. Over the last few years there has been a proliferation of online Antarctic databases and information. Examples include the SCAR-Marine Biodiversity Information Network (SCAR-MarBIN),³⁷ SCAR's biodiversity database (maintained by the Australian Antarctic Division),³⁸ and the Agreement on the Conservation of Albatross and Petrels' species summary reports.³⁹ Such resources have so

far been underutilised by the CEP and need to be more routinely used to support the CEP's work, both at its annual meetings and in its intersessional work.

The SCAR's *Antarctic Climate Change and the Environment* (ACCE) report also represents a further opportunity for the CEP to have access to rigorous information on climate change in the Antarctic region (as do, of course, the reports of the Intergovernmental Panel on Climate Change and other scientific reports on the Antarctic region).⁴⁰ The CEP needs to use this as a basis for consideration of where its own effort should be placed. But regular updates on elements of the ACCE (for example, by means of a "report card" approach) would be useful for the CEP.

Furthermore, the component parts of the treaty system also need to give consideration to how they interact with regard to data and information gathering and sharing. The two key bodies in this regard are SC-CAMLR and the CEP. The effective scope of both these bodies overlap, particularly on species protection, protected area management, and environmental monitoring. Greater cooperation and joint effort in areas of common interest can only be of benefit to both the CEP and SC-CAMLR. The recent joint workshop between the CEP and the SC-CAMLR (held in Baltimore in April 2009) was a significant achievement and successful in sharing information and ideas, clarifying lead roles on key matters, and clarifying what is and what is not of shared interest.

Other organisations with which the CEP has established good working relationships include the International Union for the Conservation of Nature (IUCN), the United Nations Environment Programme (UNEP), ASOC, and the International Association of Antarctica Tour Operators (IAATO). Good progress has been made in these relationships, but further effort is required to make information and data exchange between these bodies and the CEP effective and useful.

THE RELATIONSHIP BETWEEN THE CEP AND THE ATCM

It is self-evident that the CEP has an important relationship with the ATCM. That relationship merits closer scrutiny.

In its Article 10, the protocol makes it clear that the primary decision- and policy-making role in respect of managing the Antarctic environment remains squarely with the ATCM. Article 10 also states that the ATCM, in making its decisions, shall review the work of the committee and draw upon its advice. Article 11 of the protocol

requires the CEP to report to the ATCM, and Article 12 states that "the functions of the Committee shall be to provide advice and formulate recommendations to the Parties in connection with the implementation of this Protocol, including the operation of its Annexes, for consideration at Antarctic Treaty Consultative Meetings, and to perform such other functions as may be referred to it by the Antarctic Treaty Consultative Meetings." Article 12, paragraph 1(j), specifically requires the CEP to advise the ATCM on the state of the Antarctic environment.

It is therefore clear that the committee is an advisory body to the ATCM and subservient to it. This then places a responsibility upon both bodies. The CEP needs to ensure that it is providing timely, relevant, and scientifically based advice to the ATCM. In turn, the ATCM needs to be responsive to the advice of the committee and provide adequate direction to the committee to ensure that it is working on issues that are important and of benefit to the ATCM. Our experience shows that this is a role that not always has been given priority by the ATCM.

FUTURE CHALLENGES

The point of suggesting improvements and highlighting the issues in this paper is that managing the Antarctic environment has arguably never been more pressing. Significant challenges remain with a changing Antarctic climate, most immediately on the Antarctic Peninsula, affected species, and the implications of increasing human activity (both through tourism and the activities of national programs).

Although it is up to the parties to appoint their representatives and experts to the CEP, the work load and diversity of issues at considered by the CEP has become larger and more complex, and the burden on those attending CEP has increased. More than ever, the CEP needs a broad range of skills and competence, and representatives need to be well prepared for the agenda of the meetings. There is, unfortunately, a tendency to allow some parties to carry a disproportionate share of the work load of the CEP. This trend is probably not sustainable in the long term.

The pace of change in Antarctica is beginning to demand a more responsive and proactive system of management. To that end, the CEP is likely to play an increasingly important advisory role to the ATCM. The CEP needs to be adequately supported and resourced, and it needs to develop and maintain strong partnerships with key organisations to ensure it fulfils its mandate in the future.

NOTES

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