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Environmental Protection in the Arctic and Antarctic: Can the Polar Regimes Learn From Each Other?

TIMO KOIVUROVA, LL.D.*

There has been increasing dissatisfaction with the way Arctic-wide cooperation under the Arctic Council operates. Scholars and non-governmental organizations (NGOs) have taken up the idea of finding a new direction for the work of the Council by drawing on the experience of the other pole, the Antarctic, and its well-established structures of governance. At first sight, this may seem like a misdirected idea, given that the two poles show more differences than similarities: the Arctic consists of ocean surrounded by continents, whereas the Antarctic is a continent surrounded by ocean; the Antarctic has no permanent human habitation, while the Arctic is inhabited by indigenous peoples and other local communities. Yet, the two polar areas also resemble each other in many respects. Both have extreme climatic conditions, receiving less radiation from the sun than other parts of the globe, and the ecosystems have had to adapt to very cold and dark environments with short and light-filled growing seasons. In such conditions, the ecosystems are simple, containing only a few key species, and are thus more vulnerable to human-induced pollution than those of more temperate areas.

The purpose of this article is to examine the differences and similarities between the polar governance systems, especially from the perspective of environmental protection, and analyse whether the two regimes can benefit from each other. Of particular interest here is whether the Arctic Council could benefit from the better-developed regime of the Antarctic Treaty System (ATS). Considerations of space require that the discussion proceed on a relatively general level and focus on the basic elements of the two regimes and the differences between them.

The Development of the Polar Regimes

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Before studying the development of the polar regimes it will be useful to outline the different ways the polar areas can be defined. There is no agreement on the exact definition of the two regions. In the Antarctic, the northernmost boundary can be either that adopted in the Antarctic Treaty, i.e., 60 degrees south, or the natural boundary known as the Antarctic convergence, a maritime zone where the warm waters of the northern seas meet the cool and less salt waters of the Southern Ocean.

The question of definition is even more complex in the Arctic, where several different criteria can be presented for drawing the southernmost boundary of the region. Possible natural boundaries are, for instance, the tree line, i.e., the northernmost boundary where trees grow, or the 10 C isotherm, i.e., the southernmost location where the mean temperature of the warmest month of the year is below 10 C. In Arctic-wide cooperation, the Arctic Circle has been used as a criterion for membership, with only those states invited to participate in cooperation who possess areas of territorial sovereignty above the Arctic Circle.¹

The Development of the Antarctic Treaty System (ATS)

The impetus for the development of the ATS was the International Geophysical Year (1957-1958).² By the time the Geophysical Year was declared, seven states had made claims of territorial sovereignty over the Antarctic continent.³ The Cold War had also started, and the two superpowers - the Soviet Union and the United States - had established scientific stations in the Antarctic, although they had not made any claims to territorial sovereignty or recognized the claims that had been made. The sovereignty situation was quite volatile and thus the states concerned – the United States, the Soviet Union, the seven claimant states, and a number of others that had scientific activity in the region - agreed to start negotiations on the prospects of resolving several problematic issues that had arisen regarding the governance of the Antarctic.⁴

¹ Iceland also has territorial sovereignty areas above the Arctic Circle, as its territorial sea extends above the Circle.

² Already before this, the International Council for Scientific Unions had established the Scientific Committee on Antarctic Research (SCAR), which plays an important role in the ATS.

³ These were Chile, Argentina, the United Kingdom, Australia, New Zealand, Norway and France. In one sector, the Antarctic Peninsula, the claims of Chile, Argentina and the United Kingdom overlap. One area of the Antarctic, that comprising Ellsworth Land and Marie Byrd Land, remains unclaimed by any state; it is the last area of unclaimed land on Earth.

⁴ These were Belgium, South Africa and Japan.

The Antarctic Treaty was concluded on 1 December 1959 and entered into force on 23 June 1961.⁵ Perhaps most importantly, the Treaty resolved the sovereignty question in the Antarctic through its famous “agreement to disagree.”⁶ By “freezing” the sovereignty question for the duration of the treaty, the states that negotiated the treaty were able to focus on demilitarizing the region and establishing it as a location for scientific research.

According to the Treaty, Antarctic governance was to be implemented in Antarctic Treaty Consultative Meetings (ATCMs) by the original signatory states, known as Antarctic Treaty Consultative Parties (ATCPs). The Treaty was not intended to be an exclusive club for its 12 original signatories, however; it provided the possibility for other states to accede to it. If an acceding state wanted to become an ATCP with full rights under the Treaty, it needed to conduct “substantial research activity” in the Antarctic as described in Article IX (2); otherwise, the state could participate in the ATCMs as a non-Consultative Party.

Initially, the ATCPs conducted Antarctic policy through recommendations, as provided in the Treaty. These recommendations, which despite their name were perceived at the time as legally binding internationally, have been an important means for the ATCPs to develop the regime in many policy areas.⁷

A second approach has been to conclude international treaties in order to attract the participation of other than Consultative Parties, particularly in the management of the Southern Ocean. The rationale for this is straightforward. With sovereignty claims frozen by the Treaty, there were no coastal states in the Antarctic that could establish maritime sovereignty and jurisdiction over

⁵ Available on the World Wide Web at <http://sedac.ciesin.org/entri/texts/acrc/at.txt.html>.

⁶ According to Article IV of the Treaty: Nothing contained in the present Treaty shall be interpreted as: a. a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica; b. a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise; c. prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's rights of or claim or basis of claim to territorial sovereignty in Antarctica. No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.

⁷ For a discussion, see Donald Rothwell. *The Polar Regions and the Development of International Law* (Cambridge University Press, 1996), 96-100, 110-154.

the Southern Ocean, meaning that it could be regarded as a high seas area in the law of the sea, although not in the usual sense.⁸ If the whole Southern Ocean were deemed high seas, however, it would be open to economic exploitation by all the states in the world, including those who did not take part in the Treaty and whose behaviour the ATCPs could thus not control.

Three international treaties were concluded to address this situation:

1. The 1972 Convention for the Conservation of Antarctic Seals (CCAS).⁹
2. The 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).¹⁰
3. And the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA).¹¹

But these treaties have not always worked as originally planned, because it is mainly the ACTPs that have participated in them. Each of these conventions has an administering body of its own, and the Commission of the CCAMLR in particular has been influential.¹²

A third method used to implement Antarctic policy has been to conclude an international treaty directly connected to the original Antarctic Treaty. This occurred after France and Australia abandoned the CRAMRA as a solution to the mining issue and the need arose to find a new one. The outcome was the Madrid Protocol on Environmental Protection to the Antarctic Treaty, which prohibited mining indefinitely.¹³ The Protocol, which was adopted in 1991 and entered into force in 1998, is open only to the contracting parties of the Antarctic Treaty, and, according to its Article 4, is meant to supplement the Treaty, not to modify or amend it. Importantly, the Protocol explicitly defines the legal acts mentioned above that formed the ATS. For example, Article 1e states: “‘Antarctic Treaty system’ means the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and the measures in effect under

⁸ This is so because there were still potential coastal states that had only agreed not to consolidate their sovereignty claims for the duration of the Treaty. They have still adopted maritime zones for their Southern Ocean waters. For an analysis, see Vigni, Patrizia. “Antarctic Maritime Claims: “Frozen Sovereignty” and the Law of the Sea”. *The Law of the Sea and Polar Maritime Delimitation and Jurisdiction* (eds. Elferink, A. & Rothwell, D): 85-104. Kluwer Law International 2001.

⁹ Available on the World Wide Web at <http://sedac.ciesin.org/entri/texts/antarctic.seals.1972.html>.

¹⁰ Available on the World Wide Web at <http://sedac.ciesin.org/entri/texts/antarctic.marine.resources.1980.html>.

¹¹ Available on the World Wide Web at <http://sedac.ciesin.org/entri/texts/acrc/cramra.txt.html>.

¹² See the Commission’s website at <http://www.ccamlr.org/>.

¹³ Available on the World Wide Web at <http://sedac.ciesin.org/entri/texts/antarctic.treaty.protocol.1991.html>.

those instruments.” The Protocol also established an organ to administer it, the Committee on Environmental Protection (CEP), which reports annually to the ATCM.¹⁴

The driving force of the ATS has been the ATCMs, which at first took place biennially but since the adoption of the Madrid Protocol have been organized annually. At the most recent ATCM, the 27th, held in Cape Town, South Africa, at the beginning of June 2004, Ukraine was accepted as an ATCP. There are now 28 Consultative Parties to the Treaty with full voting rights and 17 non-Consultative Parties, making a total of 45 states in the ATS. At the same meeting it was decided that a permanent secretariat to the ATS would start its work in Buenos Aires, Argentina, at the beginning of September 2004.¹⁵

The Development of the Arctic Council

The initial idea of Arctic-wide cooperation was launched in 1987 in Murmansk by former Soviet Secretary-General Michail Gorbachev. The Soviet leader proposed that the Arctic states could initiate cooperation in various fields, one being protection of the Arctic environment.¹⁶ This idea was concretized in part when Finland convened a conference of the eight Arctic states - Canada, Denmark, Finland, Iceland, Norway, Sweden, the Russian Federation and the United States - in Rovaniemi in 1989 to discuss the issue. After two additional preparatory meetings - in Yellowknife, Canada, and Kiruna, Sweden - the eight Arctic states, as well as other actors, met again in Rovaniemi in 1991 to sign the Rovaniemi Declaration, by which they adopted the Arctic Environmental Protection Strategy (AEPS).¹⁷

The AEPS identified six priority environmental problems facing the Arctic (persistent organic contaminants, radioactivity, heavy metals, noise, acidification and oil pollution). It also outlined international environmental protection treaties that apply in the region and, finally, specified actions to counter the environmental threats. The eight Arctic states established four

¹⁴ See the Committee’s website at <http://www.cep.aq/>.

¹⁵ See the final report of the meeting, available on the World Wide Web at <http://168.83.9.25/27atcm/e/index.htm>.

¹⁶ Gorbachev proposed that a nuclear-weapon-free zone be declared in northern Europe; naval activity be limited in the seas adjacent to northern Europe; peaceful cooperation be the basis for utilizing the resources of the Arctic; scientific study of the Arctic has great significance for all mankind; the countries of the North co-operate in matters of environmental protection; the Northern Sea Route be opened by the Soviet Union to ice-breaker-escorted passage.

¹⁷ The history of the negotiation process is studied in Tennberg, Monica. *The Arctic Council. A Study in Governmentality*. University of Lapland 1998: 53-61. The AEPS is reproduced in 30 *International Legal Materials* 1624 (1991).

environmental protection working groups: Conservation of Arctic Flora and Fauna (CAFF), Protection of the Arctic Marine Environment (PAME), Emergency Prevention, Preparedness and Response (EPPR) and the Arctic Monitoring and Assessment Programme (AMAP). Three ministerial meetings (after the signing of the Declaration and the Strategy) were held in this first phase of Arctic cooperation, generally referred to as the AEPS process. The meetings were held in 1993 (Nuuk, Greenland), 1996 (Inuvik, Canada) and in 1997 (Alta, Norway). Senior Arctic Officials, normally officials from the foreign ministries of the eight Arctic states, guided the cooperation in between the ministerial meetings. The last ministerial of the AEPS was held after the establishment of the Arctic Council and thus focused on integrating the AEPS into the structure of the Arctic Council.

The Arctic Council was established in September 1996 in Ottawa, Canada, with the Arctic states signing a declaration creating the Council and issuing a joint communiqué to explain the newly created body.¹⁸ With the founding of the Council came changes in the forms of Arctic cooperation that had been based on the AEPS document, clearly extending the terms of reference beyond the previous focus on environmental protection. The Council was empowered to deal with 'common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic.'¹⁹ This yielded a very broad mandate, since "common issues" can include almost any international policy issue; however, in a footnote the declaration provides that "the Arctic Council should not deal with matters related to military security."²⁰ Environmental cooperation is now included as a principal focus within the mandate of the Council,²¹ with the four environmental protection working groups that had started already in the AEPS cooperation continuing under the umbrella of the Council.²² The second "pillar" of the Council's mandate is cooperation on sustainable development, whose terms of reference were adopted in the second ministerial meeting of

¹⁸ The 1996 Declaration on the establishment of the Arctic Council. The Declaration is reproduced in 35 International Legal Materials 1385-1390 (1996) and is available on the World Wide Web at <http://www.arctic-council.org/en/main/infopage/73/>.

¹⁹ *Ibid.*, Article 1 (a) of the Declaration.

²⁰ *Ibid.*, footnote at p. 3.

²¹ *Ibid.*, Article 1 (b).

²² *Ibid.* Article 1 (b) reads: "The Arctic Council is established as a high level forum to...b. oversee and coordinate the programs established under the AEPS on the Arctic Monitoring and Assessment Program (AMAP); Conservation of Arctic Flora and Fauna (CAFF); Protection of the Arctic Marine Environment (PAME); and Emergency Prevention, Preparedness and Response (EPPR)."

the Council, held in 2000 in Barrow, Alaska.²³ The cooperation is managed by the Arctic Council Sustainable Development Working Group (SDWG).²⁴

The declaration establishing the Arctic Council amends and greatly elaborates the rules on participation vis-à-vis those of the AEPS. It provides for three categories of participants: members, permanent participants and observers. The eight Arctic states are members; the three organizations which represent the indigenous peoples of the Arctic are permanent participants.²⁵ The declaration also lays down the criteria for observers.²⁶ It also establishes the criteria for the status of permanent participant and the decision-making procedure for determining that status.²⁷

The decision-making procedure of the Arctic Council, which had developed in AEPS cooperation, is made explicit in the declaration. Article 7 provides: "Decisions of the Arctic Council are to be by consensus of the Members." In Article 2, "member" is defined as including only the eight Arctic states. This decision-making by consensus is to be undertaken only after "full consultation" with the permanent participants, i.e., the organizations of the Arctic indigenous peoples.²⁸ Although these permanent participants do not have formal decision-making power, they are clearly in a position to exert much influence in practice on the decision-making of the Council.

²³ Ibid. Article 1 (c) reads: "The Arctic Council is established as a high level forum to...c. adopt terms of reference for, and oversee and coordinate a sustainable development program."

²⁴ The home page of the SDWG is available on the World Wide Web at <http://www.sdwg.org/>.

²⁵ Article 2 of the Declaration enumerates the following as permanent participants: "The Inuit Circumpolar Conference, the Saami Council and the Association of Indigenous Minorities of the North, Siberia and the Far East of the Russian Federation." Three organizations have since been accepted as permanent participants: the Aleut International Association, the Gwich'in Council International and the Arctic Athabaskan Council.

²⁶ Ibid. Article 3 of the Declaration reads: "Observer status in the Arctic Council is open to: a) non-Arctic states; b) inter-governmental and inter-parliamentary organizations, global and regional; and c) non-governmental organizations that the Council determines can contribute to its work."

²⁷ Ibid. Article 2 (2) reads: "Permanent participation is equally open to other Arctic organizations of indigenous peoples with majority Arctic indigenous constituency, representing: a. a single indigenous people resident in more than one Arctic State; or b. more than one Arctic indigenous people resident in a single Arctic state." Decisions by the Arctic states on whether this criterion is fulfilled must be unanimous. Article 2 also states: "the number of Permanent Participants should at any time be less than the number of members."

²⁸ Ibid., Article 2.

The function of the Arctic Council is much dictated by its chair states. The first was Canada (1996-1998), followed by the United States (1998-2000) and Finland (2000-2002), and Iceland (2002-2004), when Russia will take over. Since the Council has no permanent secretariat, the chair state has a great deal of freedom to choose its priorities during its tenure, which hinders the formation of long-term policies. The Arctic Council has also created certain programmes of its own, such as the Arctic Council Action Plan to Eliminate Pollution in the Arctic (ACAP) and the Arctic Climate Impact Assessment (ACIA).²⁹ In addition, it has increasingly taken action in international environmental protection processes, such as the negotiations on the Stockholm Convention on Persistent Organic Pollutants, which was adopted in 2001, and in the Johannesburg World Summit of Sustainable Development in 2002.

Comparison between the Polar Regimes

More substantial differences than similarities can be cited with respect to the politico-legal basis of the polar regimes and how they have dealt with environmental protection. First of all, the importance of territorial sovereignty differs enormously between the two. In the Antarctic, as discussed above, the sovereignty question has been “frozen” and thus there are no territorial sovereigns in the region. Seven states have claimed parts of the Antarctic as their sovereign area, but have agreed, in the Antarctic Treaty, not to consolidate these claims into full sovereignty for the duration of the Treaty, which is likely to mean the foreseeable future. The situation in the Arctic contrasts sharply with this. All of the land area - continents as well as islands - is firmly under the sovereignty of the Arctic states, and the Arctic waters now largely fall under their exclusive maritime jurisdiction. The core of the Arctic Ocean remains part of the high seas.

The Antarctic was effectively non-militarized during the Cold War via the Antarctic Treaty. It had been agreed that the area would be used for peaceful purposes only, with all forms of military activities excluded from the continent, and this has been the case in practice.³⁰ The Arctic, in contrast, was one of the main sites of strategic confrontation between the two rival camps of the Cold War, led by the Soviet Union and the United States. The region was heavily militarized, which, as pointed out in the AMAP assessment reports, has led to problems of environmental pollution.³¹

²⁹ See the programmes of the Arctic Council, available on the World Wide Web at <http://www.arctic-council.org/en/main/infopage/5/>.

³⁰ Articles I and V of the Antarctic Treaty.

³¹ See the scientific reports of the AMAP programmes, available on the World Wide Web at <http://www.amap.no/>.

The Antarctic Treaty System has been in existence for a very long time: the Treaty dates back to 1959. In the Arctic, while there were some efforts to address polar issues even before the AEPS, in particular the 1973 Polar Bear Agreement between the five states that host polar bear populations, these were clearly not an attempt to create a general cooperation regime such as the AEPS process and the Arctic Council.³² Arctic-wide cooperation is thus of rather recent origin in comparison to the ATS, which has a 45-year history.

Another important difference between the Antarctic and Arctic is that the Arctic has human habitation in general and is home to indigenous peoples. A rough estimate, which naturally depends on how one defines the region, puts the number of people living in the Arctic at 10 million, of whom 1.5 million are of indigenous origin.³³ No permanent human habitation exists in the Antarctic, although there are, of course, many scientists working there part time. In addition, about 15,000 tourists visit the region annually. Both poles thus face different issues where environmental protection is concerned. With no permanent human habitation in the Antarctic, there is no need to take into account considerations such as the necessary balancing of human needs with the goal of environmental protection. In addition, as the Arctic is home to a large number of indigenous peoples, there is a need to take into account their special rights, which are developing in international and national law.³⁴

Environmental Protection

Environmental protection has a long history in the Antarctic even though there is only a single reference to it in the 1959 Treaty, Art IX (1) providing that one of the areas in which the ATCMs could make recommendations was “preservation and conservation of living resources in Antarctica.” Given that this is the only reference to environmental protection in the treaty, it is remarkable how quickly and extensively the entire ATS came to focus squarely on environmental protection.

Already in 1964, three years after the entry into force of the Treaty, the ATCMs adopted Agreed Measures for the Conservation of Antarctic

³² The Agreement on the Conservation of Polar Bears. The Agreement is reproduced in 13 International Legal Materials 13 (1974).

³³ The recently released Arctic Human Development Report (AHDR) by the Arctic Council applies the narrower definition of the Arctic, yielding a population of 4 million people for the region. Furthermore, the report highlights that it is extremely difficult to assess how many of these people are of indigenous origin, given the differing definitions adopted in census statistics in the Arctic countries. See the AHDR, 27-41. The report is available on the World Wide Web at <http://www.svs.is/AHDR/AHDR%20chapters/Chapters%20PDF.htm>.

³⁴ *Ibid.*, 101-118

Fauna and Flora (Agreed Measures).³⁵ These required the Consultative Parties to protect the fauna and flora in the region as well as establish special protected areas for the purpose. Most of the recommendations adopted in the ATCMs have concerned environmental protection, and much of the environmental regulation that was part of the 1991 Madrid Protocol had already been adopted earlier in the form of recommendations, e.g., Recommendation XIV-2 in 1987 implementing an environmental impact assessment procedure for the region.³⁶ Environmental protection has also been the main focus of the associated international treaties that have been concluded, such as the CCAS, the CCAMLR and the CRAMRA.

A similar focus on environmental protection can be seen in the Arctic. Of all the policy areas which Secretary-General Gorbachev enumerated, it was environmental protection that served as the basis for the Finnish initiative for Arctic-wide cooperation, a process that led to the signing of the 1991 Rovaniemi Declaration and the Strategy for the Protection of the Arctic Environment. Even after the creation of the Arctic Council, with its new emphasis on sustainable development issues, it has been the four environmental protection working-groups (CAFF, PAME, EPPR and AMAP) that have been the main agents of this cooperation. The Arctic Council has adopted action programmes of its own, such as the ACAP and the ACIA, which have also mostly addressed issues of environmental protection.

The approaches to environmental protection in the two polar regimes have differed markedly, however. From the outset, environmental protection in the Antarctic has been regulated by international law, simply because the “freezing” of the sovereignty question meant there were no territorial sovereigns in the region who would have their environmental protection systems operating in various parts of the continent. These international environmental regulations have then been incorporated into the national legal systems of the ATCPs. In the Arctic, the situation is the reverse in that national environmental laws apply to most of the region, except for the international areas.

In the Antarctic, the institutional structure and the regulations have been adopted in internationally legally binding forms – the so-called “hard-law” approach. The Antarctic Treaty and its Protocol, as well as the associated agreements, have all been adopted using the conventional treaty format. Even the recommendations, which are easily associated with so-called “soft-law” already in effect, have had to be ratified by the ATCPs and were considered legally binding already at the start of the ATS. Arctic cooperation,

³⁵ Available on the World Wide Web at <http://sedac.ciesin.org/entri/texts/acrc/aff64.txt.html>.

³⁶ Rothwell, 110-121.

in contrast, has been based on instruments that are widely regarded as “soft-law” instruments, although there is no general consensus as to what soft-law status means.³⁷

AEPS cooperation was implemented through the signing of a declaration and the Strategy for the Protection of the Arctic Environment, and even the Arctic Council was established through a declaration. Since it is the national environmental laws of the eight Arctic states that apply in their Arctic areas, the most the Arctic Council has been able to do - as a soft-law organization - has been to adopt guidelines and recommendations on how the Arctic states should apply their regulations in those areas. Within these limits, the Council has done lot of useful work. For example, it has reviewed the international environmental laws and treaties applicable to the Arctic region, produced guidelines and manuals on various fields of environmental protection where application in the Arctic would require special measures, made an inventory of existing nature protection areas, and studied the environmental problems that damage the environment. Sometimes these programs have made a difference, but often the outcome has been somewhat disappointing.³⁸

The two polar regimes also differ with respect to the basic approach they have adopted in their environmental protection work. The Antarctic approach could be loosely characterized as one of precaution or prudence. For example, the CCAS established protection measures for Antarctic seals at a time when there was no major pelagic sealing but only fears that it might become a reality, and many of the protective measures had already been implemented in the 1964 Agreed Measures. The CCAMLR applied the same precautionary approach to the conservation of marine living resources. The main motivation for negotiating the Convention was the increasing krill fishery, krill being a key species in the Antarctic marine food chain. Yet, even though there had been a clear increase in the krill catch during the 1970s, there was still no fear of the krill stock being overexploited. The Convention was thus put in place even before any serious likelihood of damage to the environment existed.

A more dramatic example of this precautionary approach can be seen in the way the ATCPs negotiated on mineral exploitation in the Antarctic. Even though no minerals had been mined in the Antarctic, the ATCPs decided

³⁷ For an analysis of the different views, see Timo Koivurova, *Environmental Impact Assessment in the Arctic: a Study of International Legal Norms* (Ashgate Publishing 2002): 69-127.

³⁸ For an analysis of one of these failures, see Timo Koivurova, “Environmental Assessment of Natural Resource Exploitation in the Arctic: Towards Strategic Environmental Assessment”. *Circumpolar Connections; Proceedings of the 8th Circumpolar Universities Cooperation Conference 2003*: 32-37.

that since there was potential for exploitation, mineral development should start only after an international convention had been concluded to regulate mining activities, and especially their environmental impacts. They also decided, in Recommendation IX-1, that before such a convention could be concluded, there should be a moratorium on all mining activity in the region. The outcome of the negotiations between the ATCPs on the minerals issue was the 1988 CRAMRA, which in principle permitted mineral resource development but also established very strict controls on mining. Even this proved to be too little, however, because, under the lead of France and Australia, the CRAMRA was rejected. This prompted a new set of negotiations between the ATCPs, the outcome of which was the 1991 Madrid Protocol, which prohibited mining indefinitely and established tight regulation on all kinds of human activities in the Antarctic.

One final difference that may be noted between the environmental protection agendas of the two polar regimes is their stance on international environmental protection efforts. The ATCPs have not found it necessary to try to influence the negotiation processes that aim to combat global environmental problems, whereas the Arctic Council has been active in this regard, especially during Finland's tenure as chair (2000-2002). For example, the Council was active in negotiating what was to become the 2001 Stockholm Convention on Persistent Organic Pollutants, a role readily apparent in the preamble to the Convention.³⁹ The Council also played a prominent role in the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, as can be seen in the Plan of Implementation.⁴⁰

Future Prospects. Can the Polar Regimes Learn from Each Other?

As the foregoing discussion has shown, there are many interesting similarities – but, more importantly, there are noticeable differences - between the two polar regimes. The major question is whether the polar regimes have enough in common for the Arctic Council to benefit from the long-standing high-quality environmental protection regime created by the ATS and whether there might be something that the ATS could learn from the Arctic Council.

³⁹ The text of the Convention is available on the World Wide Web at http://www.pops.int/documents/convtext/convtext_en.pdf. Paragraph 3 of the Preamble reads as follows: “Acknowledging that the Arctic ecosystems and indigenous communities are particularly at risk because of the biomagnification of persistent organic pollutants and that contamination of their traditional foods is a public health issue.”

⁴⁰ The Plan of Implementation is available on the World Wide Web at http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm.

There has been increasing dissatisfaction with the way in which the Arctic Council functions. At the forefront of the criticism have been two observers in the Arctic Council:

1. the World Wide Fund for Nature (WWF), an NGO.⁴¹
2. And, the World Conservation Union (IUCN), an international organization.⁴²

But many scholars have also criticized how the Council operates at present.⁴³

The problems that have been pointed out by the observers and scholars are manifold, but only some can be reviewed here. First, the structure of the Arctic Council is becoming increasingly complex: new programmes and projects are being adopted as part of the Council's activities, but without their having a clear relationship to its existing programmes. Second, the work of the Council lacks a long-term perspective; with no permanent secretariat to provide guidance, its chair states endeavour to implement their own priorities during their two-year tenures. Third, there seems to be a general lack of enthusiasm for the work of the Council, evidenced in part by the fact that the last ministerial meeting in Inari was attended by only three minister-level representatives from the eight Arctic states. Clearly, there exists a need to evaluate whether the forms of cooperation could be improved.

One way to counter these negative developments would be to strengthen the Arctic Council and, more specifically, its environmental protection capability. According to Linda Nowlan, who did her study for the IUCN project on the topic, one might borrow ideas from the more developed polar regime, the ATS, and especially the 1991 Madrid Protocol.⁴⁴

⁴¹ See the editorial by the director of the WWF's Arctic Programme, Samantha Smith, in WWF Arctic Bulletin No. 1 (2004), available on the World Wide Web at http://www.panda.org/news_facts/publications/arctic/index.cfm.

⁴² The difference between the WWF and the IUCN is that the IUCN is a hybrid organization whose membership consists not only of states (78) and government agencies (113) but also of international and national NGOs. For statistics on the various members, see the IUCN website on the World Wide Web at <http://www.iucn.org/members/Mem%20Statistics.htm>.

⁴³ For a critical scholarly view, see, for instance, Vanderzwaag, David et al., "The Arctic Environmental Protection Strategy, Arctic Council and Multilateral Environmental Initiatives: Tinkering While the Arctic Marine Environment Totters." *The Law of the Sea and Polar Maritime Delimitation and Jurisdiction* (eds. Elferink, A. & Rothwell, D): 225-248. Kluwer Law International 2001.

⁴⁴ Linda Nowlan. *Arctic Legal Regime for Environmental Protection*. IUCN Environmental Policy and Law Paper No. 44. This publication can be downloaded from the World Wide Web at <http://www.iucn.org/themes/law/info04.html>. See parts V and VI. Philippe Sands has also argued in this direction in his widely read textbook on international environmental law: "The adoption of the Arctic Environmental Protection Strategy and the establishment of the Arctic Council provide a useful opportunity to develop new legal arrangements and institutions to govern an

One possibility Nowlan outlines is to formalize Arctic cooperation through an international treaty. The treaty would contain principles, substantive legal obligations, and some innovative features. The core of the proposal would be to have the five annexes to the Madrid Protocol - Impact Assessment, Conservation of Antarctic Flora and Fauna, Waste Disposal and Waste Management, Prevention of Marine Pollution and Area Protection and Management - transposed to become the main substantive obligations of what would be an Arctic regional treaty. Although Nowlan has put forward these possibilities, she also correctly points out the problems in such an approach.⁴⁵

On the basis of Nowlan's study, the IUCN convened an expert meeting in Ottawa on 24-25 March 2004 to discuss whether the ATS could provide the needed input for the development of environmental protection in the Arctic.⁴⁶ The expert meeting was divided over the way environmental protection should and could be developed. The main approach to Arctic governance identified at the meeting was not to borrow from the Antarctic experience but to study which environmental protection issues should be addressed at which level, that is, universal (global treaties and processes), regional (the Arctic Council), bilateral, national, and sub-national.

It is no wonder that the Expert Group did not find the Antarctic experience very convincing when considering how to strengthen the way the Arctic Council conducts its environmental protection mandate. The biggest difference, one reflected in most of the differences found in the two regimes, relates to the basic structure of cooperation. As the claims for territorial sovereignty over the Antarctic continent were "frozen" by the Antarctic Treaty, environmental protection of the Treaty area was not based on each territorial state's establishing its own environmental protection system but on the ATCMs laying down international environmental protection rules for the whole region. National legislation serves only to implement what is required by international legislation.

ecosystem which transcends national boundaries and requires international cooperation for its adequate protection to be assured. The soft law approach currently envisaged provides a first step; ultimately, it will be necessary to establish appropriate institutional arrangements and substantive rules, perhaps similar to those applied in the Antarctic, to ensure that agreed obligations are respected and enforced." Philippe Sands. *Principles of International Environmental Law* (second edition). Cambridge University Press 2003: 731.

⁴⁵ Nowlan, part VI.

⁴⁶ The present author was invited to this meeting. The expert meeting was attended by scholars, representatives of Arctic indigenous peoples and government officials. The IUCN recently decided to establish a permanent Arctic Specialist Group.

The situation is totally different in the Arctic. The eight Arctic states have established territorial sovereignty and sovereign rights over all of the land areas and much of the waters as well, with the rest of the waters being part of international areas, the high seas and the deep sea-bed. Accordingly, the states have established their own environmental protection systems governing the way the Arctic environment is protected, within the limits of international environmental law of course. This structural difference clearly manifests itself in the way environmental protection has been managed at both poles and prevents any easy borrowing from one to the other.

On balance, the present author sees only a limited possibility to use elements directly drawn from the ATS when considering the form that the Arctic Council might take. Yet this is not to say that the two regimes cannot benefit from each other. Arctic cooperation could benefit from the successful regional model that has been used in the Antarctic. If Arctic cooperation can transform itself for a third time – after the AEPS and the present Arctic Council – through an international treaty, there will be much to learn from the ATS about successful regional environmental management. The best time to take up the future form of the Arctic Council would be the fourth International Polar Year, which will start in March 2007 and run until March 2009.⁴⁷ During this period, there will be enormous media attention focused on the polar areas, highlighting the common problems the two regions face, and this will certainly increase the possibility of using Antarctic inspiration in the development of the Arctic Council.

On the other hand, the ATS could follow the lead of the Arctic Council in participating more in global environmental protection processes. This is rather urgent as both polar areas are major victims of global environmental problems. The Inter-Governmental Panel on Climate Change (IPCC) has estimated that the most immediate and intensive effects of climate change have begun to appear in the polar areas, a fact documented in the recently released ACIA scientific assessment.⁴⁸ Ozone depletion has been most acute above the both polar areas, especially the Antarctic. Both poles are sinks for persistent organic pollutants, which end up there due to atmospheric circulation and ocean currents. With many global environmental problems increasingly haunting both poles, it would seem to be a good strategy for both the Arctic and the Antarctic to try to influence the management of such problems.

⁴⁷ This International Polar Year (IPY) will be the fourth of its kind, the most recent being organized fifty years ago (1957-1958). It is not a single year but a two-year period, although not even the two mentioned in the name (2007-2008). The IPY will start in March 2007 and end by March 2009 to allow for two summer field seasons at both poles. See the IPY home page at <http://www.ipy.org/>.

⁴⁸ IPCC reports are available on the World Wide Web at <http://www.ipcc.ch/>; the ACIA report can be accessed at <http://www.acia.uaf.edu/>.