2. Environmental Protection in the Arctic and Antarctica

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2.1 Introduction

If one compares the two poles, there seem to be many differences: 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 resemble each other in many respects. Both are exposed to extreme climatic conditions, receiving less radiation from the sun than other parts of the globe while their ecosystems have had to adapt to very cold and dark environments with short and bright growing seasons. In such conditions, the ecosystems are simple containing only a few key species. Both regions are also relatively inaccessible, given the extreme conditions, although this is rapidly changing in the context of ongoing climate change.

From the environmental protection point of view it is indeed significant that the Polar Regions are similar. Their ecosystems and environments share important characteristics and are deemed to be more vulnerable to human-induced pollution than other areas of the world. This would seem to suggest then that similar types of environmental protection measures may be called for to protect these unique environments.

Can we then tailor special environmental protection rules to protect the Polar Regions? This is one of the pertinent questions examined in this chapter. Presumably, the most important legal rules and principles applicable in the Polar Regions are contained in international environ-mental law (IEL). This branch of international law, notwithstanding its importance, nevertheless remains in its infancy given that it was only in 1972 at the Stockholm Conference on the Human Environment that the intensive regulation of international environmental problems by States was effectively launched.

Since international environmental law has grown to be a vast body of rules and principles, some of them legally binding on each and every State in the form of customary international law (CIL), these rules and principles apply also in the Polar Regions. There are also a plethora of near-universal multilateral environmental agreements (MEA) and re-
gional MEAs to consider here which are binding only on States party to these treaties. If Arctic States are parties to these treaties, they also apply in the Arctic, since the States are required to implement the MEAs throughout their jurisdiction. Since IEL applies across the planet, it is reasonable to examine some of the principles and MEAs that apply also in the Polar Regions. For these reasons, it is useful to have an overview of how IEL has evolved and what basic principles of IEL guide State behavior in section 2.

As the Polar Regions are large and indeed rather unique ecosystems it would be interesting to determine whether IEL has developed special rules for such unique conditions. Important work in this respect has already been done in the two Polar regimes – the Arctic Council and the Antarctic Treaty System (ATS).

One way of determining the applicable rules and instruments of environmental protection applying in the Polar Regions is by studying various sources of pollution or environmental problems regulated in IEL and comparing how these general rules and principles have been implemented in and/or adapted to the unique environments of the Polar Regions. It is important to note that, given the normal constraints on the space available, this chapter can only provide a brief overview of the international environmental regulations in place in the Polar Regions. Moreover, national systems of environmental law and European Environmental Law cannot be studied in this article, given that these systems of law include far too many individual rules and principles to be covered in one short chapter.

2.2 The Development of International Environmental Law

There are many ways to reconstruct the evolution of IEL with each necessarily being a simplification of the actual process. It is possible to discern at least three stages of evolution each raising certain core features of the way environmental protection developed, the identification of the major tasks and problems etc. To conclude this overview it is important to examine what the current principles of IEL are as well as identifying their current status and content.

With growing awareness of the importance of environmental issues in the industrialised world in the 1960s and 1970s environmental protection emerged as an important domestic policy issue. The real launch of IEL was, however, the UN 1972 Stockholm Conference on the Human Environment, which provided an action plan for the international community over international environmental protection and prompted the UN to establish the United Nations Environment Programme (UNEP). This first period (running approximately from the beginning of 1970s to the start of 1980s) was primarily geared towards protecting the marine environment, with oceans constituting most of the planet’s space and ocean ecosystems
already experiencing serious damage from human-induced pollution. States concluded universal treaties on the dumping of waste in the marine environment and on ship-based pollution as well as regionally on land-based pollution of the marine environment. During the United Nations Convention on the Law of the Sea negotiations, which lasted from 1973 to 1982, the international community laid foundational rules to protect the marine environment from all sources of pollution in part XII of that document.

The next significant period in the evolution of IEL ran approximately from the beginning of 1980s to the start of 1990s and saw the emergence of new environmental problems such as air and atmospheric pollution. The 1979 UN Economic Commission for Europe (UN ECE) Convention on Long-Range Trans-boundary Air Pollution (LRTAP), with its subsequent protocols over various substances negotiated during 1980s and 1990s, can be viewed as the beginning of this period. The 1985 Vienna Convention on Ozone Depletion was significant in that it was the first international treaty to combat a global environmental problem, depletion of the ozone layer, with the parties taking more stringent action with the 1987 Montreal Protocol and subsequent amendments and adjustments. The most difficult environmental problem ever confronted – global climate change – was first tackled by the 1992 United Nations Framework Convention on Climate Change (UNFCCC), which became one of the instruments adopted in the 1992 Rio Conference on Environment and Development.

Nature protection does not fit in with this chronology since instances of species protection can be traced back to the beginning of the 20th Century. Among the most important treaties here is the 1946 International Whaling Convention (with its administering body the International Whaling Commission), which adopted its famous moratorium on whaling in 1982. In addition, a number of other treaties adopted at the beginning of 1970s, such as the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat, the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the latter of which tries to influence species protection by establishing strict controls over the trade in species (or their body parts), and the still Arctic-only 1973 Agreement on Conservation of Polar Bears, could also be cited here. This type of species-specific or habitat-specific international regulation was given a more holistic foundation by one of the treaties signed during the 1992 Rio Conference, the Convention on Biological Diversity, which protects diversity within species, between species and of ecosystems.

The 1992 Rio Conference marks the beginning of the third period in international environmental protection. Before this Conference, environmental protection was not so clearly connected to other policy fields and was instead pursued through various treaties. The 1985 Brundtland Re-
port had however already paved way for the wholesale adoption of the concept of sustainable development, which was ultimately to dominate outcomes at the Rio Conference. The developing States asserted their right to develop while the industrialised north pursued environmental protection. The end result was a compromise to pursue sustainable development, which should take into account environmental concerns but also poverty alleviation, free trade, etc. What this meant for IEL was that the principle of common but differentiated responsibilities, namely, that all States bear some responsibility for environmental protection but that developed States must carry a heavier burden, very much dominated negotiations of the Rio conventions and other instruments, but also future conventions.

The follow-up conference to Rio, the 2002 Johannesburg World Summit on Sustainable Development – with its Declaration and Plan of Implementation – continued even more forcefully with the trend that is apparent today. All major global problems are tightly interlinked and hence to achieve sustainable development we need to pay attention to each of them. Poverty, overpopulation and major diseases each contribute to environmental degradation and vice versa. Another highlight of this third period of the establishment of IEL is the increasing emphasis placed on the implementation of international environmental treaties. From the 1972 Stockholm Conference onwards the speedy and steady adoption of international environmental protection treaties can be seen to have taken place. Yet, at the end of 1990s there was an increasing realisation that even with all of these treaties in force, the state of the environment keeps deteriorating further. With this recognition also came a shift in emphasis to ensuring that real implementation took place in respect of these treaties primarily via a focus on methods of national implementation, capacity-building, the dissemination of information and education.

2.2.1 Principles of International Environmental Law

What is important here is that even though we can distinguish a number of distinct stages in the development of IEL this does not mean that the older treaties are now without legal significance. On the contrary, it is better to see the development of IEL as a process of the accumulation of legally binding standards over how states are obligated to behave as regards the protection of the environment. There are currently in existence a large number of MEAs legally obligating the entire international community. In addition, with this fairly rapid legal development some significant principles have emerged binding all states legally on the basis of customary international law or at least politically, if the principle in question has not yet matured into a principle of CIL. These principles were articulated in the Declaration adopted at the 1992 Rio Conference on Environment and Development.
Only the so-called “no significant harm” (or due diligence) principle is clearly a part of general international law obligating all States. It reads as follows:

States have, in accordance with the Charter of the United Nations and the Principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. (Principle 2)

Another candidate for a CIL principle is the “precautionary principle” which was articulated in Rio principle 15 in the following way:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The principles of common but differentiated responsibilities (principle 7 of the Rio Declaration) and “polluter pays principle” (principle 16, i.e., that national authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should bear the cost of pollution) are still widely seen as political principles, but have clearly guided various treaty negotiation processes.

2.3 General Comparisons of the Polar Regions from the Perspective of Environmental Protection

Two starting-points are available to us when seeking to examine the environmental protection rules pertaining to the Polar Regions. First, as mentioned previously, there is good reason to examine whether similar environmental protection rules should exist in both Polar Regions. If their ecosystems and environments share important characteristics and are deemed to be more vulnerable to human-induced pollution than other areas of the world, this would indeed seem to suggest that similar types of environmental protection measures might be called for to protect these unique environments. Yet, this is more easily said than done.

Secondly, however, it must be admitted that the Polar Regions remain highly differentiated when it comes to how environmental protection rules are enacted, implemented and applied. Of particular importance here is the issue of whether the regions concerned are part of the sovereign territory of a State or not. If a territory is under the sovereignty of a State, it is this State that has competence in enacting, implementing and applying rules in
respect of environmental protection, notwithstanding the fact that it has to observe all of the MEAs and other IEL rules and principles in the process.

Here the Arctic and the Antarctic differ greatly. In the Antarctic, the sovereignty question has been “frozen” and thus there are no territorial sovereigns on the continent. With sovereignty claims frozen by the Treaty, there are no coastal States in the Antarctic that could establish maritime sovereignty and jurisdiction over the Southern Ocean, meaning that the Southern Ocean can be regarded as a high seas area in respect of the law of the sea, although not in the usual sense (see below 4.2.). Seven States (see below) claimed parts of the Antarctic as their sovereign area before the conclusion of the 1959 Antarctic Treaty. Yet, with this legally binding convention, these “claimant States” agreed not to consolidate these claims into full sovereignty for the duration of the Treaty, which is likely to continue far to the 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 much of the Arctic waters now fall under their maritime jurisdiction. The core of the Arctic Ocean remains part of the high seas with three high seas areas clearly established, namely, the Barents Sea (loophole), the North Atlantic (banana hole) and the Bering Sea (donut hole).

Environmental protection is a complex issue in the Arctic because competence is divided between various levels of governance. The three federal States – the Russian Federation, the United States and Canada – exercise some powers in respect of environmental protection at the federal level and some at sub-unit level, e.g. Alaska in the USA or Nunavut in Canada. Even though the European Union (EU) is not a state in the eyes of international law, it is functionally very close to being one. As regards environmental protection the “federal level” of the EU can already be seen to have enacted a vast number of directives and regulations in respect of its Member States. The EU Arctic States are Finland, Sweden and Denmark. Yet, it is important to note that the Faroe Islands and Greenland are not part of the EU, while Greenland was recently elevated to the status of self-government (in contrast to its old Home-Rule status), with new powers in the area of environmental protection. The EU’s influence extends also to the European Free Trade Agreement (EFTA) States of Iceland and Norway, which, via the European Economic Area (EEA) agreement are obligated to implement much of the environmental protection rules enacted in the EU. Iceland has, however, applied for membership of the EU. The Svalbard Islands, even though they are under the sovereignty of Norway, are excluded from the EEA agreement, and are governed by an international treaty concluded in 1920 (Treaty Concerning the Archipelago of Spitsbergen). Nevertheless, Norway is competent to enact environmental protection rules for the Svalbard Islands, and in 2001 enacted strong environmental protection rules for the Islands.
It is thus easy to see that the Polar Regions are indeed Polar opposites from the perspective of environmental protection, the details of which will be surveyed when we examine the regional implementation of IEL. At this point, however, it is useful simply to note the basic differences. Since there are no territorial sovereigns in the Antarctica, international institutions have, historically, both enacted and overseen environmental protection efforts in the region. This has also led to the Antarctic Treaty System (ATS) devising and implementing its own environmental protection rules rather than implementing what IEL, and in particular MEAs require. This contrasts starkly with prevailing practice in the Arctic where it is the nation-States (and their sub-units) that primarily have competence in environmental protection, and are also required to implement and apply the obligations of IEL. Yet, if we want to understand international environmental protection rules in the Arctic it is of utmost importance to understand that there is no “Arctic” for these national systems of environmental law and policy: there is only the various States’ environmental policies and laws that also apply in their northern regions. Even if a soft-law body, it is the Arctic Council that enables us to see the Arctic as a specific region – a vulnerable and unique environment that needs to be protected.

For this reason, the way the chapter proceeds is by first giving a brief outline of how the Polar regimes – the Arctic Council and the Antarctic Treaty System – have evolved and how the region has been defined in the context of these regimes. It is interesting to note that even though the Polar Regimes are very different both have done most of their work precisely in the field of environmental protection. Thereafter, given that there are already a large number of environmental regulations and policies applicable in these regions, it is practical but still useful to take only a few examples of how environmental protection is undertaken in each region and compare them. In this way it is possible to clarify the differences which are manifest in the way in which environmental protection is undertaken in each. Finally, given the numerous environmental challenges both Polar Regions face it is imperative to examine some of these challenges and also to ponder whether the Polar regimes could learn from each other in the field of environmental protection.

2.4 Overview of the Two Polar Regimes

Before comparing the Polar regimes it will be useful to outline the different ways in which the Polar Regions can be defined. Already here we have clear differences. In the Antarctic, the northernmost boundary can be either that adopted in the 1959 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
salty waters of the Southern Ocean which was used in the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

While the two definitions of the Antarctic have been enshrined in legally binding treaties, there is no such definition of the southernmost boundary of the Arctic. As a matter of fact, several different criteria can be presented in the drawing of this boundary. Possible natural boundaries are, for instance, the tree line (the northernmost boundary where trees grow), or the 10 degree isotherm, i.e., the southernmost location where the mean temperature of the warmest month of the year is below 10 degrees. In Arctic-wide co-operation, the Arctic Circle has been used as a criterion for full membership, with only those States invited to participate in the co-operation that possess areas of territorial sovereignty above the Arctic Circle. Yet, it has been left for each State and working-group of the Council to define which southernmost boundary it wants to use.

2.4.1 The Arctic Council

The initial idea of Arctic-wide co-operation was launched in 1987, in Murmansk, by former Soviet Secretary-General Mikhail Gorbachev. The Soviet leader proposed that the Arctic States could initiate co-operation in various fields, one being protection of the Arctic environment. 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 Romanism 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). The AEPS identified in its introduction the reason for the strategy:

The Arctic is highly sensitive to pollution and much of its human population and culture is directly dependent on the health of the region’s ecosystems. Limited sunlight, ice cover that inhibits energy penetration, low mean and extreme temperatures, low species diversity and biological productivity and long-lived organisms with high lipid levels all contribute to the sensitivity of the Arctic ecosystem and cause it to be easily damaged. This vulnerability of the Arctic to pollution requires that action be taken now, or degradation may become irreversible.

The AEPS identified six priority environmental problems facing the Arctic – (persistent organic contaminants, radioactivity, heavy metals, noise, acidification and oil pollution), most of which can be traced either to prior environmental accidents having an effect in the region (the Exxon Valdez oil spill in Alaska and the Chernobyl nuclear reactor accident in the former Soviet Union) or increasing awareness of long-range transport of pollutants to the Arctic from southern centres. It also outlined interna-
tional environmental protection treaties that apply in the region and, finally, specified actions to counter these environmental threats.

The eight Arctic States established four 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 co-operation, 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 co-operation process 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. With the founding of the Council came changes in the forms of Arctic co-operation 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.”

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”. Environmental co-operation is now included as a principal focus within the mandate of the Council, with the four environmental protection working groups set up in the context of AEPS co-operation continuing under the umbrella of the Council.

The second “pillar” of the Council’s mandate is co-operation on sustainable development, whose terms of reference were adopted in the second ministerial meeting of the Council, held in 2000 in Barrow, Alaska. Co-operation here is managed by the Arctic Council Sustainable Development Working Group (SDWG). Recently, a sixth working group was established, the Arctic Contaminants Action Programme (ACAP).

The declaration establishing the Arctic Council amends and greatly elaborates on 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. The declaration also lays down the criteria for
observers, as well as the criteria for the status of permanent participant and the decision-making procedure for determining that status.

The decision-making procedure of the Arctic Council, which had developed in the context of AEPS co-operation, is made explicit in the declaration. Article 7 provides that: “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. 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.

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), Finland (2000–2002), Iceland (2002–2004) and Russia (2004–2006). Currently, the so-called Scandinavian chairs have taken over with their common priorities for the period 2006–2012. Norway being the first chair with Denmark now acting as the chair. Since the Council has no permanent secretariat, the chair State has a great deal of freedom to choose its priorities during its tenure. This does however undoubtedly hinder the formation of long-term policies (during the Scandinavian chair period, there is also a common secretariat in Tromsø, Norway).

The Arctic Council has in recent years focussed most of its energy on making large-scale scientific assessments, starting with the 2004 Arctic Climate Impact Assessment (ACIA), which established the Arctic as a barometer of climate change. Given the projected intense change in the Arctic, many scientific assessments have been produced with more already underway dealing with the consequences of climate change in the Arctic for oil and gas activities (assessment finalised in 2008 but released in 2009), shipping (2009) and biodiversity (2011). In addition, the Council 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 on Sustainable Development in 2002.

2.4.2 The Antarctic Treaty System

The impetus for the development of the Antarctic Treaty was the International Geophysical Year (1957–1958). By the time the Geophysical Year was declared, seven States (Chile, Argentina, the United Kingdom, Australia, New Zealand, Norway and France) had made claims for territorial sovereignty over parts of the Antarctic continent. 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 for territorial sovereignty or recognized the
claims that had been made by others. 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 begin negotiations on the prospects of resolving several problematic issues that had arisen regarding the governance of the Antarctic.

The Antarctic Treaty was concluded on 1 December 1959 and entered into force on 23 June 1961. Perhaps most importantly, the Treaty resolved the sovereignty question in the Antarctic through its famous “agreement to disagree” (article IV). All States could hold to their legal positions as to the sovereignty claims: those who had made them, agreed not to consolidate them during the duration of the Treaty and Soviet Union and the USA did not have to recognise such claims. 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 only participate in the ATCMs as a non-Consultative Party.

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

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 proper in the Antarctic that could establish maritime sovereignty and jurisdiction over the Southern Ocean, meaning that it could be regarded as a high seas area in respect of the law of the sea, although not in the usual sense (since some of the claimant States have adopted maritime zones for their Southern Ocean waters). If the whole Southern Ocean were deemed high seas, however, it would be open to economic exploitation by all States, including those that had not taken part in the Treaty and whose behaviour the ATCPs could thus not control.

Three international treaties were concluded to address this situation – the 1972 Convention for the Conservation of Antarctic Seals (CCAS), the 1980 Convention on the Conservation of Antarctic Marine Living Re-
sources (CCAMLR) and the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) – but these have not worked as originally planned, because it is mainly the ATCPs that have participated in them.

A third method used to implement Antarctic policy has been to conclude an international treaty 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. 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. 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 those instruments.” The Protocol also established an organ to administer it, the Committee on Environmental Protection (CEP), which reports annually to the ATCM.

The driving force of the ATS has been the ATCMs, which at first took place biennially but since 1994 have been organized annually. There are now 28 Consultative Parties to the Treaty with full voting rights and 19 non-Consultative Parties, making a total of 47 States in the ATS. In 2004, the permanent secretariat to the ATS commenced its work in Buenos Aires, Argentina.

2.5 Environmental Protection: Similarities and Differences in the Polar Regions

It is important to note that both of the Polar regimes have focused their work on environmental protection though this work began in the Antarc
tica much earlier than in the Arctic. The 1959 Treaty already provided in Art IX (1) that one of the areas in which the ATCMs could make recommendations was in the “preservation and conservation of living resources in Antarctica.” Already in 1964, three years after the entry into force of the Treaty, the ATCMs adopted Agreed Measures for the Conservation of Antarctic Fauna and Flora. These required the Consultative Parties to protect the fauna and flora in the region as well as to establish special protected areas for this 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., Rec-
ommendation XIV–2 in 1987 implementing an environmental impact assessment procedure for the region. Environmental protection has also been the main focus of the associated international treaties that have been concluded, i.e., the CCAS, and the CCAMLR.

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 co-operation, 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 co-operation.

From the perspective of environmental protection, a clear difference between the Antarctic and the 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. No permanent human habitation exists in the Antarctic, although there are, of course, many scientists working there part-time. In addition, increasing number of tourists visits 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 account of their special rights and interests in environmental protection, which are developing in international and national law.

This difference can well be illustrated in the way marine mammals are conserved and managed in the Polar Regions, particularly whales. As is well-known, the International Whaling Commission – established via the 1946 International Convention for the Regulation of Whaling – set up a moratorium against all whaling in 1982, which entered into force in 1986. This controversial decision is still in force, even though the scientific committee has recommended its partial revision. The Antarctic Treaty System – in particular the CCAMLR and Annex II of the Madrid Protocol – ensure that the global whaling regime functions also in the Southern Ocean. However, the situation is very different in the Arctic. First of all, two of the Arctic States withdrew from the Whaling Convention and its Commission because of the moratorium on all whaling: Canada and Iceland. Even though Iceland returned in 2002, it made a reservation to the effect that it could commence – on the basis of sound science – commercial whaling after 2006. Norway objected to the moratorium and is thus not legally bound by it and has continued whaling. It has set its national catch limits for its coastal whaling operations over minke whales. Abo-
riginal subsistence hunting is provided for in the Whaling Convention, and thus the indigenous peoples of Alaska, Greenland and Russia continue hunting on that basis. There is then a stark contrast between how whaling is regulated in the Polar Regions.

There is even a special co-operative body (Commission) to conserve and manage cetaceans (whales and dolphins) and pinnipeds (seals and walruses) in the Arctic, established via the Agreement on Cooperation in Research, Conservation and Management of Marine Mammals in the North Atlantic (NAMMCO Agreement). The NAMMCO Commission is an international body for cooperation on the conservation, management and study of marine mammals in the North Atlantic. The agreement was signed in Nuuk, Greenland on 9 April 1992 by Norway, Iceland, Greenland and the Faroe Islands and aims to provide a mechanism for cooperation on the conservation and management of all cetaceans and pinnipeds found in the region.

2.5.1 Differences between the Environmental Protection Approaches of the Polar Regimes

The approaches to environmental protection in the two Polar regimes have differed markedly. 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 that 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, e.g. the high seas and deep sea-bed.

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 soft-law in effect, have had to be ratified by the ATCPs and were considered by many States as legally binding already at the start of the ATS.

Arctic co-operation, in contrast, has been based on instruments that are widely regarded as soft-law instruments. AEPS co-operation 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: e.g., 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 are damaging the environment. Sometimes these programmes have made a difference, but outright failures have also occurred. The problem is made more difficult by the fact that the Arctic Council does not regularly evaluate whether these projects and guidelines it has produced actually attain their goals.

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 whereas the Arctic Council has focused on sponsoring vast scientific assessments rather than trying to regulate the issues. The ATS approach can be demonstrated in reference to a number of examples. 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 level of krill fishing, 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 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, as mentioned earlier, 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.
The 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. For example, the Council actors were 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 “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.”

2.6 Similarities between the Environmental Protection Approaches of the Polar Regimes

It is also important to note that the most pressing environmental problems in respect of the Polar Regions are not generated from within the regions themselves, but rather emanate from the outside. It is the commercial centres of North America, Europe and Asia that contribute most to Polar environmental problems primarily through the emission of persistent organic pollutants, heavy metals, greenhouse gases and chlorofluorocarbons. Some of these pollutants travel long-distances from the mid-latitudes to the Polar Regions by prevailing wind patterns and the ocean circulation system causing, ultimately, various environmental and human health problems in the Polar Regions. Yet, even though both regions can be seen as victims of global environmental problems – in the sense that the regions do not really contribute to these problems but suffer from them – it has only been the Arctic Council that has been able to make a difference on how these global problems are tackled, not the Antarctic Treaty System.

As was mentioned above, the Arctic Council actors made a concerted effort to influence the negotiations over what became the 2001 Stockholm POPs Convention. It was the successful AMAP compiled information over how the POPs end up in the Arctic, and the way the region’s indigenous peoples could give a human face to the problem that made a difference in the negotiations. The Inuit could show on the basis of science that because they still eat traditional foods, POPs end up in their body, and for instance cause harm to the human embryo. The Arctic Council has been able to influence only indirectly the problems of ozone depletion and climate change caused by chlorofluorocarbons and greenhouse gases respectively. By sponsoring the Arctic Climate Impact Assessment (ACIA), it was able to feed regional scientific information to the respective global regimes tackling these problems.
Biodiversity protection is undertaken, to some extent, similarly in each of the Polar Regions. Evidently the difference referred to above that the ATS system has drawn up its own rules for biodiversity protection and not simply tried to implement the Convention on Biological Diversity in the Antarctica is important here. Seven of the eight Arctic States are parties to the Biodiversity Convention so except for the U.S. the main work related to biodiversity is focused on the implementation of this Convention in the Arctic. Yet, there are some similarities in biodiversity protection. Both Polar Regions have a conservation treaty for the unique species of the region.

The 1973 Agreement on Conservation of Polar Bears and the 1971 Convention for the Conservation of Antarctic Seals both aim to protect the species in their Polar environments. Both regions have, in their own way, special legal regulations and programmes focusing on certain plants and animals. Annex II of the Madrid Protocol to the Antarctic Treaty on Environmental Protection focuses on the conservation of Antarctic fauna and flora and has, as one of its protective measures, the designation of specially protected species. The CAFF set up its flora and seabirds group to advance biodiversity in a programmatic manner, mobilising already existing resources from the Member States to do this work. Both regions have – at least on the surface – protected area systems in place, which are one of the main means to conserve biodiversity. Annex V of the Madrid Protocol established a system of three classes of protected areas. In a similar vein, even though a soft-law process, the CAFF commenced in the early years of the AEPS the Circumpolar Protected Area Network (CPAN). Yet, such a system is currently non-functioning in the Arctic Council, given that no country is willing to take the lead over the CPAN.

Article 8 of the Madrid Protocol and its Annex I governs the way environmental impact assessment (EIA) is to be undertaken in Antarctica. The trigger for different levels of EIA is to evaluate whether the proposed activity is likely to produce less or more “minor or transitory impact.” As part of the final ministerial meeting of the AEPS in 1997 in Alta Norway, Guidelines for Environmental Impact Assessment in the Arctic were adopted together with another document – Arctic Offshore Oil and Gas Guidelines. The EIA Guidelines instrument provides important guidance for Arctic EIAs, but as independent research has shown, the instrument has not been used and very few are even aware that it exists. The Arctic Offshore Oil and Gas Guidelines, which also contain strict EIA procedures for these particular types of activities, were revised for the third time in the Arctic Council ministerial meeting of April 2009, but it is difficult to say whether it has actually been made use of since the Arctic Council does not evaluate the effectiveness of the instruments it produces.

The only legally binding Article that recognizes the special vulnerability of the Arctic environment (not the Antarctica) is Article 234 of the LOS Convention:
Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.

This provision mandates those Arctic coastal States that control sea areas under the ice-coverage for most part of the year to adopt and enforce non-discriminatory “regulations for the prevention, reduction and control of marine pollution from vessels” within the limits of their exclusive economic zones. Two Arctic States have made use of this provision, namely Canada and Russia, and have availed themselves of stronger powers to control ship traffic partly for the reason of protecting the marine environment. The International Maritime Organisation adopted non-legally binding Guidelines for shipping that applied only in the Arctic (as had been the case for Article 234). These Guidelines provide important guidance for construction requirements for ships entering Arctic waters, similar to those adopted by International Association of Classification Societies (IACS). They also recommend equipment standards, various types of operational measures and environmental protection and damage control. Recently, the IMO Assembly has adopted such Guidelines to apply in both Polar Regions and the IMO has a process in motion to consider making these legally binding by 2012.

Even if it was the Antarctic Treaty Consultative Meeting (ATCM) that adopted the Practical Guidelines for Ballast Water Exchange in Antarctic waters – which were then later adopted by IMO – these contain procedures for vessels that operate in both Polar Regions. The Guidelines aim to ensure that vessels operating in both the Arctic and the Antarctic handle ballast water responsibly and in such a way that invasive marine organisms are not transported between these regions.

2.7 Emerging Issues and Conclusions

As the discussion above has shown, there are some similarities – but, more importantly, noticeable differences – between the two Polar regimes. The major question then 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 for the Antarctica and whether there might be something that the ATS could learn from the Arctic Council. It may also be useful here to discuss some of the emerging issues in environmental protection in respect of the Polar Regions.
It is important to stress that even though the differences between the two regions are stark from the viewpoint of governance, we should not underestimate their similarity in the minds of the general public and governments. After all, regime formation is not always a rational process, and thus the imagined commonality of the poles may enable the Polar regimes to draw lessons from each other, even in designing an Arctic environmental protection treaty. In addition, in many countries, for one reason or another, polar issues are dealt with together, and many of the Arctic States (e.g. the USA, Norway, Sweden, Finland and the Russian Federation) are also Consultative Parties in the ATS (and Denmark and Canada non-consultative ones). In recent years the Polar regimes themselves have started to oversee each others actions, this culminated in the joint Antarctic Treaty – Arctic Council meeting at the end of the International Polar Year 6 April 2009, which also served by marking the 50 year celebration for the Antarctic Treaty. The meeting also issued the Washington Declaration on the International Polar Year and Polar Science.

With this as a background, we can ask whether the vulnerable Arctic environment would be best protected by borrowing from the long-standing high-quality environmental protection regime created for the Antarctica, the ATS. The World Conservation Union (IUCN) – a type of hybrid international organisation, given that it has a vast number of states and governments as members – initiated a project on this possibility at the beginning of 2000. The project, however, did not come to any clear conclusions. The most recent attempt to revive the Antarctic model for the Arctic governance was made by the European Parliament, in its October 2008 resolution which:

[...] suggests that the Commission should be prepared to pursue the opening of international negotiations designed to lead to the adoption of an international treaty for the protection of the Arctic, having as its inspiration the Antarctic Treaty, as supplemented by the Madrid Protocol signed in 1991, but respecting the fundamental difference represented by the populated nature of the Arctic and the consequent rights and needs of the peoples and nations of the Arctic region; believes, however, that as a minimum starting-point such a treaty could at least cover the unpopulated and unclaimed area at the centre of the Arctic Ocean.

Nevertheless, serious obstacles remain to any attempt for the Arctic to directly borrow from the ATS, particularly in relation to environmental protection. As all claims in respect of territorial sovereignty over the Antarctic continent were “frozen” by the Antarctic Treaty, environmental protection of the Treaty area was and is not based on each territorial State establishing its own environmental protection system but on the ATCMs laying down of international environmental protection rules for the whole region. National legislation serves only to implement what is required by international legislation.

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. 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.

The growing challenge to both regions however comes from global climate change and economic globalisation. The Polar regimes affirmed in their 2009 Washington Declaration that scientific information from the Polar Regions should feed into our overall understanding of the climate science, and in particular the findings produced in the context of the Inter-Governmental Panel on Climate Change (IPCC). Climate change will clearly be the biggest challenge to the Polar Regions in the years to come, and for the Polar regimes that try to keep their development sustainable. In response to the rapid changes now being experienced in the Polar areas various new kinds of economic activities are increasingly being developed. This clearly presents a formidable challenge to the Polar regimes. In the Antarctic, the ATS is well equipped to conserve the environment as well as the region’s fauna, flora and ecosystems, but it will face increasing pressures from economic activities particularly from tourism and biological prospecting. The challenge for the ATS then is how it could become active internationally, especially in the climate regime, since together with the Arctic Council they have the potential to deliver a strong message to the global community in respect of the already damaging consequences of climate change in the Polar Regions. Joint international policy encompassing both the Arctic Council and the ATS will also be important in influencing the way the Stockholm Convention on POPs develops as both poles are sinks for persistent organic pollutants which end up there due to atmospheric circulation and ocean currents.

The Arctic is arguably facing very serious development pressures in the near and mid-term future. Given the melting sea ice and warming waters, shipping, offshore oil and gas exploitation, fisheries and tourism are increasing in prominence presenting difficult governance challenges for the Arctic Council. With the rapid environmental and economic changes, discussion over the need for stronger Arctic environmental governance has commenced among various Arctic constituencies, in particular those of the Arctic States and the European Union. It is to be expected however that the principles and rules of IEL and MEAs will continue to play an important role in meeting the challenges faced in respect of environmental protection in the Polar Regions.
Further reading:


Websites:

The Arctic Council home page, at (http://www.arctic-council.org/), see also individual working-group web sites, at AMAP (http://www.amap.no/), PAME (http://www.pame.is/), EPPR (http://eppr.arctic-council.org/), ACAP (http://www.ac-acap.org/), CAFF (http://caff.arcticportal.org/), SDWG (http://portal.sdgw.org/)
ECOLEX (database providing comprehensive, global source of information on environmental law. ECOLEX is operated jointly by FAO, IUCN and UNEP, at http://www.ecolex.org/start.php

WWF International Arctic Programme, at http://www.panda.org/what_we_do/where_we_work/arctic/WWF Arctic.

Questions:

1. In what way do you think that the principles of international environmental law are relevant in the Arctic and the Antarctic?
2. How does the task of environmental protection change when humans are living in a region needing such protection measures?
3. What is the biggest environmental threat to the Polar Regions? Can the Polar legal regimes contribute in any way to mitigating climate change and adapting to its consequences?