

CLIMATE CHANGE, POLAR BEARS AND INTERNATIONAL LAW

Nigel Banks
Faculty of Law
The University of Calgary
ndbankes@ucalgary.ca

1.0 INTRODUCTION

This paper addresses the linkages between climate change and selected international instruments¹ that apply to one key species of arctic wildlife, the polar bear. As a species that has adapted to living on sea ice and whose main prey species are similarly adapted and dependent, the polar bear is particularly vulnerable to global warming. The available scientific assessments all indicate that global warming will cause significant reductions in sea ice in arctic regions in the spring and summer months.² Global warming will cause earlier melting of sea ice in the spring and delay the formation of sea ice in the fall\autumn. Observers have already noted significant reductions in sea ice coverage.³ In 2006 the World Conservation Union (IUCN) reassessed the polar bear as vulnerable and added it to the Red List citing climate change as the most significant driver of the re-assessment.⁴ In addition, various groups in the United States seek to have polar bear listed as threatened under the *Endangered Species Act*⁵ because of climate change and COSEWIC (Committee on the Status of Endangered Wildlife in Canada) is currently engaged in a reassessment of the status of Canadian polar bear populations.

¹ [and domestic laws – current focus is international law but could cover the effect of US MMPA and possible ESA listing of bears]

² ACIA

³ IPCC WG I, Summary for Policy Makers, 2001, at 4, “Northern Hemisphere spring and summer sea-ice extent has decreased by about 10 – 15% since the 1950s. It is likely that there has been about a 40% decline in Arctic sea-ice thickness during late summer to early autumn in recent decades and a considerably slower decline in winter sea-ice thickness.”

⁴ Schliebe, S. Wiig, Ø., Derocher, A. & Lunn, N. 2006. *Ursus maritimus*. In: IUCN 2006. *2006 IUCN Red List of Threatened Species*. <www.iucnredlist.org>

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There are several reasons for focusing on polar bears in any legal analysis of the implications of climate change for the arctic. First, polar bears are the subject of a focused international agreement, the 1973 Agreement on the Conservation of Polar Bears. While that agreement was driven by a concern for overhunting, especially by sports hunters, the agreement also bound the parties to take appropriate action to protect the ecosystems of which polar bears are a part. Second, as a top predator of the arctic marine ecosystem, the polar bear provides a good indicator of the health of that ecosystem. And if we think about and implement the measures necessary to secure the long term health of polar bears we will likely also protect other aspects of that ecosystem.⁶ Third, since polar bears are of considerable cultural, spiritual and economic importance to some of the indigenous peoples in the Arctic it allows us to think about the responsiveness of international law to the interests of indigenous peoples in light of climate change. This is particularly important given the IPCC's recognition in its Third Assessment Report (TAR, 2001) that while the human systems of the Arctic nations of Europe and North America generally share a relatively high adaptive capacity to the implications of climate change, indigenous and northern communities generally are more vulnerable especially where dependent on climate-sensitive resources.⁷ IPCC's summative comment with respect to natural and social systems in the polar areas is especially telling:

Natural systems in polar regions are highly vulnerable to climate change and current ecosystems have low adaptive capacity; technologically developed communities are likely to adapt readily to climate change, but some indigenous communities, in which traditional lifestyles are followed have little capacity and few options for adaptation.⁸

[NB perhaps a fourth point; polar bears as charismatic mega fauna]

⁶ Just as Michael Glennon posed the rhetorical question "Has International Law Failed the Elephant?" (1990), 84 AJIL 1 – 43 part of the question here is "can international law save the polar bear"?

⁷ IPCC WG II, Climate Change 2001, Impacts, Adaptation and Vulnerability, Summary for Policy Makers at 15 – 16.

⁸ Id., at 16.

In thinking about the linkages between climate change law and other aspects of international environmental law it is important to bear in mind the distinction between mitigation measures and adaptation measures.⁹ “Mitigation measures” refers to measures taken to reduce emissions of greenhouse gases or enhance sinks for such gases. “Adaptation measures” refers to the steps that states or private actors may take to respond to the implications of global warming.

With respect to mitigation measures the relevant legal questions would seem to be along the following lines: does international wildlife law create additional normative reasons for taking mitigation measures? Does international wildlife law constrain the selection of mitigation measures? Does international wildlife law influence the interpretation of mitigation duties that may exist under other instruments such as the Framework Convention on Climate Change?

For adaptation measures the questions may be put somewhat differently. Do other elements of international environmental law and specifically international wildlife law, impose relevant obligations on states in their selection and implementation of adaptation measures? Does wildlife law constrain a state’s choice of adaptation measures? Might wildlife law require that a state adopt some adaptation measures rather than others?

In addition to these types of questions there is I think another set of questions which might be framed in terms of how other instruments accommodate or respond to climate change. For example, and in the context of the Convention on International Trade in Endangered Species, how does the listing process (i.e. the process of adding new species to the Appendices) take account of the implications of climate change?

The international laws examined here are the Agreement on the Conservation of Polar Bears and the Convention on International Trade in Endangered Species. The reason for focusing on the ACPB is self-evident, CITES perhaps less so. The polar bear is currently

⁹ This is the IPCC’s terminology. See WG III, Climate Change 2001: Mitigation at 3 “Mitigation is defined here as an anthropogenic intervention to reduce the sources of greenhouse gases or enhance their sinks.”

listed in Appendix II of CITES but there is some risk as climate change progresses that there will be pressure to uplist the species (and perhaps other key Arctic species) to Appendix I. Neither MEA has a particularly active agenda when it comes to the implications of climate change for the subject matter of its convention. It is easy to see why this is so for the ACPB since the ACPB lacks a secretariat and a conference of the parties, the institutional prerequisites for establishing an agenda. It is less obvious why this should be so for CITES.

[NB: do I also need to deal with the Bern Convention??]

By contrast, other multilateral environmental agreements and their various decision making bodies have invested considerable intellectual effort in thinking about the implications of climate change for the mandate and responsibilities of their own organizations. The more active MEAs include the Convention on Biological Diversity¹⁰, the Ramsar Convention on Wetlands of International Significance,¹¹ the Convention to Combat Desertification,¹² the UNESCO World Heritage Convention¹³ and even the International Whaling Convention.¹⁴ These agreements are not the focus of the current paper but I do offer some examination of the types of initiatives that these organizations have engaged in as a way of thinking about how the ACPB and CITES might respond [I still need to complete this or simply delete the sentence]. At least one other agreement is potentially relevant the Bonn Convention on Migratory Species but of the five range states for the polar bear the Convention has only been ratified by Norway and Denmark and Denmark's ratification does not extend to Greenland.¹⁵ In addition others have

¹⁰ See Meinhard Doelle, "Linking the Kyoto Protocol and Other Multilateral Environmental Agreements: From Fragmentation to Integration?" (2004) 14 J. Env. L and Prac 75 – 103.

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¹⁴ For discussion see William C. G. Burns, "From the Harpoon to the Heat: Climate Change and the International Whaling Commission in the 21st Century" (2001), Georgetown Int'l Env'tl L. Rev. 335 – 359.

¹⁵ See Bonn Convention website, http://www.cms.int/about/part_1st.htm pdf file, Application of CMS to Overseas Territories/Autonomous Regions, visited August 13, 2006.

canvassed the linkages between climate change and the law of the sea convention and other potentially relevant regimes.¹⁶

This paper is in part an example of the search for “the relevant applicable law”. While the Framework Convention on Climate Change¹⁷ and its Kyoto Protocol¹⁸ clearly constitute the relevant *lex specialis* when it comes to thinking about problems of climate change it does not follow that those two instruments are the only relevant instruments. A few examples may help make the point. The International Court of Justice *Advisory Opinion on the Legality of Nuclear Weapons*¹⁹ provides one example which is discussed below. A second example might be the MOX Plant dispute between Ireland and the United Kingdom. As Koskenniemi has written this disputes may be framed in one or more of three rule complexes, the universal rules of the law of the sea, the regional (environmental) rules of the OSPAR Convention or the rules of the European Community and Euratom.²⁰ A third example [discussed elsewhere in this volume?] is provided by the current efforts of the Inuit Circumpolar Commission to argue before the Inter American Commission on Human Rights that the United States, by failing to ratify the Kyoto Protocol or otherwise take measures to reduce emissions of greenhouse gases, is in breach of its obligations under the Declaration on the Rights and Duties of Man.²¹

The paper proceeds as follows. The next part of the paper, Part 2, deals with two preliminary matters offering some comments on the relevant applicable law and then some comments on the linked issues of the interpretation of international agreements (and especially the need to interpret instruments in light of “all relevant rules of international

¹⁶ See for example Doelle’s effort to assess the linkages between the climate change regime and the Law of the Sea, Meinhard Doelle, *From Hot Air to Action: Climate Change, Compliance and the Future of International Environmental Law*, Thomson, Carswell, Toronto, 2005 chapter 6.

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¹⁹ [1996] ICJ Rep

²⁰ Martii Koskenniemi (Chair of the Study Group), Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, 13 April 2006, A/CN.4/L.682, at para. 10. available on the ILC website.

²¹ And see the discussion in Doelle, *supra* note, c. . See also efforts by various interested organizations to have UNESCO World Heritage Sites that are particularly threatened by global warming added to the list of World Heritage in Danger.

law applicable in the relations between the parties”²²), and the duty to implement agreements in good faith. Part 3 offers the necessary science background and considers the implications of climate change for polar bears. Parts 4, 5 and 6 deal with different aspects of the relevant applicable law: the Framework Convention, the Agreement on the Conservation of Polar Bears and CITES.

2.0 PRELIMINARY MATTERS

2.1 Relevant applicable law

In the *Advisory Opinion on the Legality of Nuclear Weapons* the General Assembly asked the International Court of Justice for its advice on the following question: “Is the threat or use of nuclear weapons in any circumstances permitted under international law?” In responding to this question the Court acknowledged as a preliminary matter that it “must decide after consideration of the great corpus of international law norms available to it, what might be the relevant applicable law.”²³ The Court eventually concluded that “the most directly relevant applicable law ... is that relating to the use of force enshrined in the United Nations Charter and the law applicable in armed conflict which regulates the conduct of hostilities, together with any specific treaties on nuclear weapons ...”.²⁴ But before reaching that conclusion the Court commented on arguments that the question was to be resolved by reference to other bodies of law including international human rights law and the right to life, the international law on genocide and international environmental law. Although the Court settled on other bodies of law as being “most directly relevant” it would be a mistake to conclude that it thought that these other bodies of law were somehow irrelevant. We can see this if we explore the court’s treatment of general environmental norms in a little more detail.

Some of those appearing before the Court argued that any use of nuclear weapons must be unlawful by virtue of the duty to safeguard and protect the environment. The Court

²² Vienna Convention on the Law of Treaties, Article 31(3)(c).

²³ At para 23.

²⁴ At para. 34.

accepted that such a duty existed and in a well known passage acknowledged the “existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment”.²⁵ But the court also held that such a duty was not an obligation of total restraint and could not be read so as to deprive a state of its right of self-defence. Nevertheless, the duty was not irrelevant to the matter at hand since “States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives. Respect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality.”²⁶

In other words the duty to respect the environment forms part of the interpretive context within which to construe the most directly applicable laws just as those directly applicable laws will also affect the interpretation of the more general norms.²⁷ In this way the *lex specialis* informs and is informed by the *lex generalis*. The court dealt similarly with other rules of law. For example, the Court emphasised that both the principles of humanitarian law and the principle of neutrality were all relevant and applicable to all international armed conflict whatever type of weapons might be used.²⁸

What conclusions can we draw from this examination of the Court’s Advisory Opinion? First, the concept of relevance is directly related to the question that is being asked and as I have suggested above the relationship between climate change and international wildlife law may give rise to a variety of questions. Second, the Court took a broad view of what was relevant. It did not, for example, confine itself to considering only those sources (e.g.

²⁵ At para. 29.

²⁶ *Id.*, at para 30. At this point in its judgement the court is considering a point of customary law but the same approach is mandated by Article 31(3)(c) of the Vienna Convention on the Law of Treaties in relation to treaty law. For recent discussions of the importance of this paragraph in the context of international environmental law see

²⁷ See at para 25 where the court observes in the context of the discussion of Article 6 of the ICCPR and the phrase “No one shall be arbitrarily deprived of his life” “the test of what is an arbitrary deprivation of life ... falls to be determined by the applicable *lex specialis*”.

²⁸ At para. 89.

treaties and General Assembly Resolutions) that pertained specifically and directly to the use of nuclear weapons. It emphasised that its search for the relevant law would also have to take account of the effects of using such weapons. Third, depending upon the question there may be more than one relevant body of law. Fourth, even if not the most relevant body of law, that other body of law may be used to interpret the most directly relevant law. These different bodies of law interact with each other; they are not hermetically sealed silos.

This suggests that following some more detailed discussion of the effect of climate change on polar bears that we should commence our examination of the relevant instruments by looking first at the Framework Convention on Climate Change before passing to the ACPB and then the more general CITES.

2.2 The interpretation and good faith implementation of international agreements

[I need to write this section: perhaps three\four subsections: (1) general approach Article 31 VCLT and the case law; (2) a sub-section on 31(3)(c) and evolutive interpretation (Gabcikovo, Iron Rhine, Ostar\MOX, writings of Higgins etc as well as the ILC work on “Fragmentation”), and (3) a section on good faith. Question: should this discussion be in this paper or should it be a separate co-authored chapter in the volume?]

3.0 POLAR BEARS AND CLIMATE CHANGE

There is considerable evidence to suggest that polar bears are particularly vulnerable to the implications of climate change. Polar bears are distributed at low densities throughout the circumpolar Arctic.²⁹ Scientists have identified 20 relatively discrete populations although there is overlap between these populations and genetic differences are small.³⁰

²⁹ Between 55% and 65% of the population is within Canada. Stirling and Taylor, *Update COSEWIC Status Report on the Polar Bear, Ursus Maritimus in Canada*, 1999. This paragraph draws extensively on this report.

³⁰ IUCN, Species Survival Commission, Polar Bear Specialist Group, “Status of the Polar Bear” in Lunn, Schliebe and Born (eds), *Proceedings of the 13th Working Meeting of the IUCN/SCC Polar Bear Specialist*

The 20 populations are as follows: East Greenland, Barents Sea (shared between Russia and Norway), Kara Sea, Laptev Sea, Chukchi Sea (shared between Russia and the USA), Southern Beaufort Sea (shared between USA and Canada), Northern Beaufort Sea, Queen Elizabeth, Viscount Melville Sound, Norwegian Bay, Lancaster Sound, M'Clintock Channel, Gulf of Boothia, Western Hudson Bay, Southern Hudson Bay, Kane Basin (shared between Canada and Greenland), Baffin Bay (shared between Canada and Greenland), and Davis Strait (also shared between Canada and Greenland) and the Arctic Basin population. The current boundaries between these populations are based upon geographic obstacles relating to patterns of break-up and freezing and it seems likely that changes in ice-cover that occur as a result of global warming will alter the delineation of boundaries between these populations. In some cases it may cause populations to merge and in other cases sub-populations may become more isolated.³¹ The state of knowledge of these populations varies but it seems likely that the effects of climate change on each of these populations groups will not be uniform and may be most severe for populations at the southern extremes of the range such as the western and southern Hudson Bay populations.

Polar bears have low reproductive rates and long generation spans. Female bears do not reach sexual maturity until 4 or 5 and then mate every 3 to 4 years. Scientists estimate that the doubling time of a typical population is about 24 years (assuming no limiting factors) and hence “a depleted population could be expected to require decades to recover—even with no harvest.”³² Most pregnant female polar bears den on land within 50 km of the coast and show considerable fidelity to particular sites. In some areas, such as the Beaufort, bears may locate maternity dens on multi-year ice floes. Most dens are constructed in snow drifts but in southern areas (e.g. Hudson Bay\James Bay) bears may dig dens in banks. Bear distribution is influenced by sea ice which in turn influences the

Group, 23 – 28 June 2001, Nuuk, Greenland, pp. 21 – 35. The PBSG identifies 20 sub-populations, the IUCN Red List reassessment in 2006 refers to 19 sub-populations.

³¹ Derocher, Lunn and Stirling, “Polar Bears in a Warming Climate” (2004), 44 *Integrative Comparative Biology* 163 – 176 at 172.

³² S and T at 18.

distribution of bears' key prey species, ringed seal and to a lesser extent bearded seal.³³ Bears are not well adapted to feeding on land. Bears that are required to spend time on land generally fast.

It is the dependence of polar bear on the availability and distribution of sea ice which largely explains the vulnerability of this species, and indeed its most significant prey species, to climate change and global warming. The ACIA Summary Report, *Impacts of a Warming Arctic*³⁴ projects a reduction in annual ice-cover of between 10% and 50% by 2100 with many models predicting a 50% decline in summer ice cover by 2100.³⁵ One consequence of loss of summer ice-cover with both later formation and later break-up of ice will likely be longer periods of annual fasting for female polar bear. Females in poor condition with smaller fat stores will have smaller litters and smaller cubs that are less likely to survive. Early spring break up may separate traditional denning sites from ice cover forcing young cubs to swim long distances. Increased shipping in the Arctic as sea ice retreats may further disrupt ice-covered areas and may create a greater risk of pollution.³⁶ Early spring rains might cause the collapse of dens. And commentators suggest that changes in distribution of bears may lead to increased bear\human conflict with resulting losses to the population.³⁷

Derocher et al also identify some of the implications of projected climate change for managing bear populations. These include: changes in the present boundaries of sub-populations and perhaps amalgamations leading to the need to manage formerly discreet populations as single units; where climate change alters survival and reproduction rates harvesting rates will need to be adjusted and perhaps eliminated with serious social and economic consequences for particular communities; populations will need to be more carefully monitored to identify changes and implement necessary responses, at the same time current mark and capture schemes may be more difficult to implement (more open

³³ Bears will also eat beluga, narwhal and walrus but to a much lesser extent. They will also feed on the carrion of larger whales such as bowhead.

³⁴ *Impacts of a Warming Arctic*, November 2004 ? at <http://amap.no/acia/> esp. at 58.

³⁵ At 30.

³⁶ Derocher, Lunn and Stirling, "Polar Bears in a Warming Climate" (2004), 44 *Integrative Comparative Biology* 163 – 176 at 173.

³⁷ Derocher et al at 169 – 170.

water) and perhaps more risky (animals may be stressed); the potential need to address the impacts of greater shipping traffic including disruption of ice-covered areas and the risks of dumping and accidents.

The ACIA Report's summative statement with respect to polar bears indicates that "Polar bears are unlikely to survive as a species if there is an almost complete loss of summer sea-ice cover, which is projected to occur before the end of this century by some models. The only foreseeable option that polar bears would have is to adapt to a land-based summer lifestyle". The ACIA Report's assessment of ice-living seals and especially ringed seals is at least as pessimistic.³⁸

The IUCN's justification for upgrading polar bears to vulnerable echoes much of the ACIA conclusions. The assessment suggests that the polar bear should be listed as vulnerable since the bear population can be expected to be reduced by at least 30% within three generations (45 years) due to a decline in the bear's area of occupancy, the extent of occurrence and habitat quality. The assessment concludes that while polar bears have adapted to past climate changes the speed of current warming trends makes it unlikely that the species will be able to adapt with the implication that "If climatic trends continue polar bears may be extirpated from most of their range within 100 years."

In addition to climate change the literature as well as species assessment reports such as the IUCN and COSEWIC assessments also refer to other factors that may have a negative impact on recruitment or survival including toxic contaminants (as a result of long range transport and bioaccumulation), oil and gas exploration (threats to denning habitat and increased risk of oil spills), consumption of foreign compounds (polar bears are highly inquisitive and will consume foreign substances that may cause death) and the potential risk of over-harvest due to increased quotas, excessive quotas or no quotas.³⁹

³⁸ *Id.*, at 59.

³⁹ Pretrud and Stirling at 114 and 122; COSEWIC at 19 – 20 and on the harvest issue see esp. at 28 – 29 (the 2002 addendum).

Given this general assessment of the implications of environmental change generally and global warming specifically for the polar bear and the species on which it depends we should now look at the relevant law.

4.0 FRAMEWORK CONVENTION ON CLIMATE CHANGE

One of the premises of Convention recognized in the Preamble is the concern that anthropogenic emissions of greenhouse gases will result in additional warming that “may adversely effect natural ecosystems and humankind.” The Convention in turn has its principal objective:

... to achieve ... stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

The objective therefore stipulates both a level and a time frame for achieving that level.

The level or stabilization target is fixed by reference to the “climate system”. Stabilization should be at a level that prevents dangerous anthropogenic interference with that system. The IPCC has been reluctant to provide a definitive answer to what this might mean in terms of a stabilization target. Essentially the IPCC has stated that what constitutes a dangerous interference represents a value judgement and furthermore that the answer will vary among regions depending upon both local effects and adaptive capacity.⁴⁰

The time frame within which the target is to be achieved is fixed by reference to three other factors or conditions: (1) the natural adaptive capability of ecosystems, (2) food production, and (3) (sustainable) economic development. The drafting suggests that the stabilization target must be reached within a timeframe that allows each of these conditions to be met. The text does not suggest an obvious hierarchy amongst these three

⁴⁰ TAR, *Summary for Policy Makers* at 2.

conditions and it does not indicate what happens if, say, two of the conditions militate in favour of one time frame whereas the third condition militates in favour of a different, perhaps longer timeframe. There is one basis however for arguing that a conflict between the first and the second or third conditions should be resolved in favour of the first and that is that the capacity of an ecosystem to adapt while continuing to provide ecosystem services may be argued to be a precondition to each of the second and third conditions.

The Convention did not establish binding targets for any Contracting Party and, despite considering the vulnerabilities of some countries and ecosystem types, makes no mention of the particular vulnerability of arctic ecosystems.⁴¹ The Kyoto Protocol makes some progress in establishing emission reductions targets for Annex I parties to the Convention both individually (the pledge based quantified emission limitations of Annex B to the Protocol) and collectively (an overall 5% reduction of 1990 levels) but the Protocol does not create additional obligations for developing countries. In sum, total global emissions of greenhouse gases will continue to grow and given past, current and projected emissions we continue to be committed to continued global warming.

[I probably need to add material here especially with respect to stabilization targets but much may depend upon other chapters in the volume.]

5.0 AGREEMENT ON THE CONSERVATION OF POLAR BEARS

5.1 Background to the Agreement

The Agreement on the Conservation of Polar Bears⁴² is an early example of a modern wildlife treaty. The range states of the polar bear (Canada, Denmark, Norway, the USSR⁴³ and the USA) concluded the treaty in 1973 and it entered into force in 1976

⁴¹ Bankes, Fenge and Kalf, "Towards Sustainable Development in Canada's Arctic: Policies and International Relations", in Hampson and Maule (eds), *Canada Among Nations 1993-94, Global Jeopardy*, Carlton University Press, 1993, pp. 170-189.

⁴² Oslo, 15 November 1973

⁴³ Russia is the succeeding party.

following ratification by the first three parties.⁴⁴ While the Agreement provided for an initial term of five years, Article X (5) also provided that it continue in force thereafter unless one of the parties requested termination within that initial term. No party so requested and the Agreement continues in force subject only to the right of each Party to denounce the treaty on 12 months notice. While the Agreement provides for continuing consultation between the parties in order to accord further protection to polar bears (Article IX) it does not provide a dispute resolution clause.⁴⁵

In addition to this regional agreement there is a recent bilateral agreement between the United States and Russia in relation to the Alaska-Chukota Bear Population⁴⁶ Furthermore, there is a long-standing agreement between the Inupiat of Alaska and the Inuvialuit of Canada in relation to the southern Beaufort population.⁴⁷ There are no bilateral agreements in relation to other shared populations of bears although there are ongoing discussions between Canada and Greenland in relation to those shared populations.

According to Prestrud and Stirling the impetus for the treaty came as a result of the rapid increase in the recorded number of polar bears killed especially during the 1960s.⁴⁸ Other concerns included the use of planes (especially in Alaska) and large boats (especially in Svalbard) to facilitate a sport hunt for trophy animals. In addition, there was some concern that ships and citizens of non-range states might engage in polar bear harvesting in international waters.⁴⁹ While some jurisdictions such as the Soviet Union had long controlled bear harvest (the former Soviet Union had prohibited the taking of bears from 1956 onwards because of concerns that populations were depleted as a result of

⁴⁴ Fikkan et al, "Polar Bears: The Importance of Simplicity" in Young and Osherenko, *Polar Politics: Creating International Environmental Regimes*, Cornell UP, 1993, pp. 96 – 151 at 98.

⁴⁵ In his analysis of climate change and the Law of the Sea Convention Doelle emphasises the availability of compulsory dispute resolution under UNCLOS: see Doelle, *supra* note, chapter xx.

⁴⁶ Washington, October 16, 2000.

⁴⁷ The first version of this agreement was signed January 1988 and superceded by the current agreement of June 4, 1999. A copy of the current agreement is found in [Nuuk PBSG] at 105 – 107.

⁴⁸ Pal Prestrud and Ian Stirling, "The International Polar Bear Agreement and the current status of polar bear conservation" (1994), 20 *Aquatic Mammals* 113.

⁴⁹ Fikkan et al, "Polar Bears: The Importance of Simplicity" in Young and Osherenko, *Polar Politics: Creating International Environmental Regimes*, Cornell UP, 1993, pp. 96 – 151

overhunting) other states had very little regulation in place. For example, Alaska residents enjoyed an unlimited bag on polar bears until 1971 when it was restricted to three bears and the use of set guns was still permissible in Svalbard until 1971.⁵⁰ The concerns that informed the negotiation of the treaty also informed changes made to the domestic laws of many of the range states at around the same time. For example, the United States adopted the Marine Mammal Protection Act in 1972 which transferred responsibility for polar bear management from the state to the federal government and imposed a moratorium or prohibition on the harvest of all marine mammals including polar bears.

In addition to the range states, the IUCN and its Polar Bear Specialist Group (PBSG) (which had been formed earlier in 1968 and was composed of polar bear scientists from the five states) made an important contribution to the negotiation of the Agreement and provided drafting assistance to the parties during the early stages of those negotiations.⁵¹ As we shall see the PBSG has continued and while not acknowledged in the treaty continues act as an international research forum and to monitor the domestic implementation of the agreement and the health of the different populations.

5.2 The General Obligations of the Contracting Parties

The Agreement comprises a short, four clause, preamble and ten operative articles. In the preamble the parties recognize their “special responsibilities and special interests” for “the protection of the fauna and flora of the Arctic Region.” The preamble goes on to recognize that within the Arctic Region the polar bear is a significant resources which “requires additional protection” which is to be achieved through “co-ordinated national measures” taken by the Arctic States. These broad ideas inform the object and purpose of the Agreement and therefore the interpretation of the operative clauses of the agreement.

⁵⁰ Both of these examples are taken from Prestrud and Stirling at 116 (USSR) and 114 (Alaska).

⁵¹ Fikkan et al caution at 144 – 145 that while the PBSG played an important role there was no epistemic community with a common view of the problem and its solution.

The ACPB⁵² imposed eleven main obligation on the parties: (1) the duty to prohibit the taking⁵³ of polar bears (Article I) subject to five listed exceptions (Article II), (2) the duty to take appropriate action to protect the ecosystems of which polar bears are a part (Article II), (3) the duty to afford special attention to various elements of polar bear habitat in giving effect to the duty to protect the ecosystem of which bears form a part, (4) the duty to manage polar bear populations in accordance with sound conservation practices based on the available scientific data, (Article II), (5) the duty to prohibit the use of aircraft and large motorized vessels for the purpose of taking polar bears (Article IV), (6) the duty to prohibit the export or import of polar bears or parts thereof taken in violation of the agreement (Article V), (7) the duty to take the necessary domestic measures to give effect to the agreement (Article VI), (8) the duty to conduct national research programmes on polar bears and to coordinate that research with that other Parties (Article VII), (9) the duty to consult on the management of migrating bear populations and to exchange information on research and bears taken (Article VII), (10) the duty to take appropriate actions to promote compliance with the Agreement by the nationals of non-Parties, and (11) the general duty to continue to consult with each other “with the object of giving further protection to polar bears” (Article IX).

Beyond the stipulation of duties the Agreement also recognizes the right of each Party to take additional measures to provide more stringent controls than those required by the Agreement (Article VI(1)).⁵⁴

While many of these duties relate to the “taking” of bears and are therefore of lesser interest here it is also clear that some of the duties go far beyond the taking\hunting issue and deal with more general procedural obligations as well as obligations to manage the population and protect the ecosystem of which the bear is a part. The next two sections

⁵² The most sophisticated analysis of the agreement is Donald C. Baur, “Reconciling Polar Bear Protection Under United States Laws and the International Agreement for the Conservation of Polar Bears” (1996), 2 Animal Law 9 – 99. See also Baur’s earlier analysis prepared for the US Marine Mammal Commission

⁵³ The definition of “taking” is narrower than that found in some domestic legislation such as the US Endangered Species Act or Canada’s Species at Risk Act or Migratory Birds Convention Act The definition in the ACPB while not exhaustive (it uses the term “includes” rather than “means”) refers to “hunting, killing and capturing”.

⁵⁴ And see the similar clause in CITES.

examine in more detail the compound set of obligations embraced by Article II and the duty to consult in order to identify possible implications for climate change.

Article II establishes three separate but linked obligations.⁵⁵ The clause is important enough to merit quoting in its entirety.

Each Contracting Party shall take appropriate action to protect the ecosystems of which polar bears are a part, with special attention to habitat components such as denning and feeding sites and migration patterns, and shall manage polar bear populations in accordance with sound conservation practices based on the best available scientific data.

The first element is the broadest and requires that parties shall take “appropriate action” to protect the ecosystems of which polar bears are a part. The same duty, that is to say the duty “to take appropriate action to protect”, also governs the second and more specific element of Article II which requires that parties afford specific attention to various habitat components. The third part of the clause is governed by the more prescriptive “shall manage”.

5.2.1 The duty to protect the ecosystems of which polar bears are a part

The duty imposed by Article II is a mandatory duty to take action to protect. The word “appropriate” qualifies this duty by affording discretion to each party as to how it goes about fulfilling this duty but it cannot empty the duty of its content. That is to say, if there is credible evidence that suggests that the ecosystems of which the polar bear is a part are subject to threats then “no action” could hardly be “appropriate”. While the term “appropriate” affords each contracting party some discretion, that discretion cannot be unlimited and subjective.

⁵⁵ See also

The term “appropriate” must be read in the context of the entire clause and in the context of the object and purpose of the treaty. Here it bears emphasizing that the first clause of the preamble to the treaty recognizes the special interest and special responsibility of the Arctic states to protect not only polar bears but also “the fauna and flora of the Arctic Region” as a whole. Furthermore, there is good reason for thinking that this term should be interpreted in light of developments in general customary international law which might include the precautionary approach.⁵⁶ Finally, it is apparent that the duty to protect the ecosystem is not exhausted by taking the specific steps to protect critical elements of polar bear habitat. If that were the case the Article would have spoken only to the habitat requirements of bears.⁵⁷ Instead, as Baur puts it, the obligation “applies to all components of the Arctic environment”.⁵⁸

The duty to protect is a duty to protect “the ecosystems of which polar bears are a part”. Polar bears are top predators within the Arctic marine ecosystem. This ecosystem is a relatively simple system in which eponic algae are eaten by zooplankton which are eaten by fish, principally arctic cod. The cod in turn are eaten by seals which in turn are consumed by polar bears. It is this ecosystem that the parties to the ACPB have committed to take appropriate steps to protect. Furthermore, while over-hunting might have provided the most serious threat to polar bears and the ecosystem of which they formed a part when the agreement was originally negotiated in the early 1970s, and while other environmental issues have given rise to concerns about the health of polar bear populations and the arctic marine ecosystem generally, it is apparent that the most serious threat to the ecosystem of which polar bears are a part is climate change.

In assessing the extent to which the language of Article II should be interpreted as discretionary or mandatory it is useful to have in mind several comparators. One set of comparators will come from the agreement itself since these comparators show the range

⁵⁶ Add references as to the meaning and status of the approach/principle.

⁵⁷ And see in this context Article IV of the Agreement between the United States of America and the Russian Federation on the Conservation of the Alaska-Chukota population of polar bears, Washington D.C., October 16, 2000. This agreement does not include a duty to protect the ecosystems of which bears are a part.

⁵⁸ Baur, *supra*, note at 30.

of expressions that the negotiators were dealing with most immediately.⁵⁹ A second set of comparators might come from other cognate agreements.

With respect to the first set of comparators the Agreement generally uses the mandatory “shall”. In some cases (e.g. the prohibition on export, import or traffic of bears and the management standard prescribed in Article II itself) this is not further qualified. In one case (Article IV), the mandatory language is almost nullified by a domestic carve-out exception (i.e. a duty to prohibit the use of aircraft and certain vessels “except where the application of such prohibition would be inconsistent with domestic laws”). The Agreement uses the qualifier “appropriate” in one other case, Article VIII, but there the actual language is “*as appropriate*” which suggests some discretion to decide whether any action is appropriate.⁶⁰ In conclusion, the linguistic choices made by the negotiators of this agreement suggest that on a spectrum of discretion or auto-interpretation the duty to protect the ecosystem lies more towards the mandatory\objective end of the spectrum rather than the permissive\subjective end of the spectrum.

With respect to the second category of cognate agreements the language of the ACPB contrasts markedly with the language adopted in much of the CBD. To take one example, each of Articles 8 and 14 of the CBD dealing respectively with in situ conservation and impact assessments commences with the language “Each Contracting Party, as far as possible and as appropriate, shall”. In some cases the specific “obligations” that follow are further qualified by the choice of verb (e.g. promote) or by reference to the content of national legislation.

In sum, while the word “appropriate” as used in Article II of the ACPB offers a Contracting Party a degree of discretion and auto-interpretation in the manner in which it meets its obligation the word cannot be used to negate that obligation.

⁵⁹ For support for this approach see *Ospar Arbitration, Final Award*, 2 July 2003 at paras 129 – 130 noting that the framers of the Ospar Convention “carefully applied differential language to provide for stipulated levels of engagement of treaty obligation to achieve these objectives. There is a cascading standard of expression providing for the particular obligations imposed on a Contracting Party.”

⁶⁰ “Each Contracting Party shall take action, as appropriate to promote compliance with the provisions of this Agreement by nationals of States not party to this Agreement.”

5.2.2 The duty to protect critical components of bear habitat

In addition to the general duty to protect ecosystems of which bears are a part, Article II imposes the more specific duty (similarly qualified) to afford special attention in protecting those ecosystems to critical habitat components. While the article uses denning, feeding and migrations routes as examples (and these are clearly broad) the obligation presumably extends beyond that to other components that might be identified as important.⁶¹

5.2.3 The duty to manage polar bear populations

As noted above each state has a duty to manage polar bear populations in accordance with two standards: (1) sound conservation practices and (2) based on the best available science. This compound duty is expressed in more absolute terms since it is not qualified by the phrase “appropriate action”. The term “sound conservation practices” is clearly a term that lends itself to an evolutive interpretation as our understanding of bear biology and habitat and the structure of bear populations and sub-populations change. The same is true of best available science with the added possibility that this term should now be interpreted to include not only the western science of bear biologists but also the traditional ecological knowledge of indigenous peoples and potentially other local communities.⁶²

The duty to manage bear populations based on sound conservation practices is principally significant for those jurisdictions that continue to permit the harvesting of bears within

⁶¹ See also Article IV of the Alaska-Chukota Agreement, *supra* note . While this Agreement does not refer to the duty to protect ecosystems it does provide that the Contracting Parties “shall undertake all efforts necessary to conserve polar bear habitats” and to that end “shall take steps necessary to prevent loss or degradation of such habitats that results in, or is likely to result in mortality to polar bears or reduced productivity or long-decline in the ... population”. Several clauses of this bilateral agreement confirm that the parties intended this agreement to be at a minimum consistent with the ACPB and to “further the goals” of that Agreement” and indeed the language seems even more mandatory than that of the ACPB and specifically the duty to take steps to prevent loss of habitat which may result in long term decline.

⁶² Insert CBD references; SARA references. But the point is contentious: see e.g. Resolution xx passed at the most recent PBSG meeting Seattle, 2005

the exceptions permitted by Article II of the treaty.⁶³ Some jurisdictions do not avail themselves of any of the exceptions and thus the taking of polar bears is completely prohibited in Norway and Russia (?). One jurisdiction (US\Alaska) authorizes limited harvesting by indigenous peoples and both Canada and Denmark\Greenland authorize both an indigenous harvest as well as trophy or conservation hunting by non-indigenous people.

5.2.4 The duty to consult

Article IX of the agreement obliges the parties to continue to consult “with the object of giving further protection to polar bears”.⁶⁴ The substantive content of this duty is to afford “further protection to bears”. In the context of the agreement it seems reasonable to think that the protection of bears is not simply limited to measures to protect bears from hunting but extends at a minimum to those other protective duties referred to in the Agreement. These include the Article II duties to protect the ecosystems of which polar bears are a part as well as critical habitat components.

The duty to consult is not an empty duty. While it does not include a duty to reach an agreement and falls short of a duty to negotiate, it is still a treaty based duty that must be performed in good faith.⁶⁵ The object of the consultation is further protection⁶⁶ taking into account not only the changing standards of international environment law but a changed understanding of the environmental threats that bears face and from which they need further protection.

⁶³ Article II poses serious interpretive difficulties. For further analysis see Baur, *supra* note at as well as Banks, Conservation Hunting and International Law [perhaps].

⁶⁴ In addition, Article VII requires Parties to consult “on the management of migrating polar bear populations”. The Government of Canada when ratifying the Agreement deposited an interpretive declaration in which it stated, *inter alia*, that Canada interpreted this Article VIII requirement as applying only when another Party requests such consultation and not as imposing a requirement to hold consultations annually. Canada made no similar observations with respect to Article IX.

⁶⁵ *Gabcikovo*. On the duty of good faith

⁶⁶ See *Advisory Opinion Nuclear Weapons* at para. 99 dealing with the duty to negotiate but emphasising that the duty in that case was not simply a duty of conduct (i.e. to negotiate) but to achieve a particular result – in that case nuclear disarmament, here further protection to bears.

To this point it appears that there has only been one formal consultative meeting of the Parties. This was convened by Norway in 1981 and the principal purpose of the meeting seems to have been to agree that the Agreement should continue in force.⁶⁷ Consequently, it would seem that there is ample opportunity for one or more of the contracting parties to request consultations with the object of providing further protection to bears. Such consultations might cover a wide range of matters including measures to protect the ecosystems of which bears are a part as well as measures to protect habitat components all in light of significant new threats to the status of bear populations including the threat of climate change. Furthermore, in light of the preambular reference to co-ordinated national measures it would be useful to encourage an exchange of view on best practices in relation to both the protection of habitat components as well as other adaptive steps that might be taken to fulfil the “special responsibility” assumed by each of the Contracting Parties. Each Contracting Party would have an obligation to participate in such consultations in good faith.

5.3 The PBSG

As stated above, the text of the ACPB does not provide for a “conference of the parties”. However, the negotiating record reveals that the parties did contemplate that the Polar Bear Specialist Group (PBSG) of IUCN (the World Conservation Union) would continue to meet and provide a forum for exchange of information and “to bring before the participating governments any finding or recommendations ... relating to research and conservation of the polar bears.”⁶⁸ The PBSG continues to meet every three to four years to discuss “technical matters” that relate to the Agreement.⁶⁹ The group does not regard itself as “an open forum for public participation” and therefore does not provide observer status for NGOs or others.⁷⁰ Membership is limited to twenty with each of the five parties

⁶⁷ Oslo 20 – 22 January, 1981. The Summary and Conclusions is reproduced on Proceedings, 8th Meeting

⁶⁸ At the PBSG 8th Meeting, 1981, Oslo, Proceedings, Minutes at 23 there was a discussion as to the status of the Group. Some members thought that it was simply a group of voluntarily cooperating scientists. The majority however argued that it had a more official role and in support of that referred to the summary record from both the original negotiations and the 1981 Consultative Meeting convened by Norway, extracts from the reports of which are reproduce in the Proceedings at 147 – 151.

⁶⁹ Guidelines for the PBSG, Proceedings, 11th Meeting 1993, at 25.

⁷⁰

to the Agreement entitled to designate up to three members while the chair (which rotates between countries) may appoint up to five additional members.⁷¹ In addition to formal members the chair can also invite an unlimited number of specialists to participate in a meeting. The group has used this category of “specialist” since 1993 to include members of and advisors to co-management bodies set up by land claim agreements with indigenous peoples.⁷²

Discussions within the group generally focus on polar bear research and polar bear management in each jurisdiction. The group also provides some assessment of the status of different populations as well as more general discussion of particular issues in polar bear research such as population modeling. The group passes a number of resolutions at each meeting: on one occasion as many as 12 resolutions (the 1988 meeting in Sochi, Russia) but usually not more than five or six. The resolutions are usually short and address a range of matters. Some resolutions question domestic implementation and enforcement practices while others draw attention to development projects or environmental issues that threaten the health of polar bears. In addition to issues of climate change (discussed in the next section) the PBSG has drawn attention to such environmental concerns as radionuclide contamination,⁷³ problems associated with potential year-round shipping operations for transport of hydrocarbons,⁷⁴ and the effects of possible petroleum development in the Barents Sea.⁷⁵ The operative parts of the resolutions are usually very short and while in many cases they simply call for more research or monitoring others are more prescriptive, especially where the group can point to a particular obligation in the Agreement that is arguably not being observed by one or more parties.⁷⁶

⁷¹ 13th Meeting, Nuuk, 2001 at 18 (obviously a better discussion in the 11th mtg)

⁷² See Resolution # 2-1993, 11th Meeting, Copenhagen, “Participation of users as invited specialists” The Resolution recognized the increasing mandate of indigenous people with respect to polar bear management, acknowledged their participation in that particular meeting and supported the continuing participation of “northern polar bear specialists” within the group.

⁷³ Resolution # 7, 1997, 12th Meeting, Oslo.

⁷⁴ Resolution # 5, 1981, 8th Meeting, Oslo, “Polar Bears and the marine ecosystem of Baffin Bay”.

⁷⁵ Resolution # 4, 1988, Sochi, USSR.

⁷⁶ See, for example resolution #9-1988 in which the Group referred to the Article IV duty not to allow the use of aircraft and large motorized vessels, noted that the US and Greenland each lacked relevant legislation and that there had been recent examples of infractions in each jurisdiction leading the group to

5.3.1 The PBSG and discussions of climate change

The PBSG first seems to have discussed the issue of climate change in the context of the Agreement as early as 1976 when the group used its meeting at Morges to draw attention to what were then early predictions of climatic fluctuations “which could alter present distribution and numbers of northern species”. But the operative part of its resolution⁷⁷ was somewhat vacuous since the group simply requested that IUCN “draw to the attention of the appropriate management agencies the need to take into full account the accumulated impact of those changes when considering northern conservation programmes.”

After 1976 the PBSG continued to draw attention to other environmental concerns as noted above but its resolutions did not refer again to issues of climate change until 2001 at its 13th Meeting in Nuuk Greenland. The Resolution passed at that meeting⁷⁸ recognized the importance of sea ice and that ice coverage had significantly declined as a result of warming. The Resolution then went on to note that this would “significantly influence the condition and reproduction success of polar bears and their prey”. And finally, having referred to Article II of the Agreement and “the need to manage polar bears and the ecosystem of which they are a part” the Resolution went on, somewhat lamely, to recommend the need for further research so as to understand how these changes will continue to affect polar bears in the future and develop management and conservation measures to respond to future changes.

Climate change or global warming also figured in no less than four of the six resolutions adopted at the 14th meeting of the PBSG in Seattle in 2005. The first resolution⁷⁹ urged parties to respond to climate change by taking a precautionary approach when

recommend that “contracting parties take all steps necessary to curtail, as expeditiously as possible, the use of aircraft and large motorized vessels for the purposes of taking polar bears within their jurisdiction.”

⁷⁷ Resolution # 2-1976, Climatic and Human Impact, Morges, Switzerland.

⁷⁸ Resolution # 1-2001: Effects of Global Warming on Polar Bears

⁷⁹ Resolution # 1 – 2005, A precautionary approach when setting catch limits in a warming Arctic.

establishing quotas. The particular concern that seems to have motivated the PBSG was the combination of habitat loss and increased hunting. The recitals to the recommendation suggest that degradation of the sea ice habitat seemed to be causing an increased occurrence of polar bears near settlements and outpost camps and on the near shore sea ice. The group went on to conclude that increased occurrences might not reflect an increased population size and the Group therefore viewed with some disquiet decisions in Nunavut to increase quota allocations on the basis of local and traditional knowledge. That, combined with an increased harvest in Greenland, led the Group to opine that polar bear populations might be seriously threatened by the combined effect of rapid habitat loss and increased exploitation. In sum the Group recommended that quotas should “be increased on the basis of local and traditional knowledge only if supported by scientifically collected information.”

A second resolution⁸⁰ noted that the susceptibility of bears as top predators to the effects of pollutants “might be exacerbated by changes driven by global warming”, while a third resolution,⁸¹ noting a decline in the western Hudson Bay stock and acknowledging that this decline was due to anthropogenic removals “and reduced demographic rates from climate warming”, recommended that “appropriate management action be taken without delay.” The subject of the final resolution⁸² that referred to global warming related to risks to bears from ship traffic. Emphasising the critical importance of sea ice, and recognizing as well that global warming not only reduced the amount of ice cover but thereby also encouraged the development of increased vessel traffic, the Group noted the increased risk to bears “from contaminants, bilge dumping, fuel spills, habitat alteration and human bear encounters”. In conclusion the Group recommended that each jurisdiction “monitor, regulate and mitigate ship traffic impacts on polar bear subpopulations and habitats”.

5.4 Assessment

⁸⁰ Resolution # 2 – 2005, An international study of effects of pollution in polar bears.

⁸¹ Resolution # 3 – 2005, Status of Western Hudson Bay (WH) population analysis.

⁸² Resolution # 4 – 2005, Risks to polar bears from Arctic ship traffic.

In the introduction to the paper I suggested that there were three types of questions that we might pose when considering the relationship between climate change law and international wildlife law: first, a set of questions about mitigation measures, second, a set of questions about adaptation measures, and third, a set of questions designed to ascertain the degree to which existing wildlife instruments have accommodated or responded to the issue of climate change. I can now try and provide some summary response to each of those types of questions as a way of concluding this analysis of the ACPB.

5.4.1 Mitigation measures

The parties to the ACPB assumed an obligation to take appropriate action to protect not just the critical habitat components for bears but the ecosystems of which they are a part. The parties must be taken to have known, even then, that threats to an ecosystem might be external and that the duty that the parties had undertaken might extend beyond including critical habitat in protected areas. In agreeing to protect ecosystems the parties cannot have intended to protect those ecosystems unchanged since such systems are dynamic. But it does seem reasonable to think that they committed themselves to preserving some basic elements of arctic marine ecosystem function with different trophic levels and the polar bear as a top predator within those systems. [some references to adaptability and resilience]. External factors that pose a serious threat to the basic structure of such a system surely trigger the obligation to protect. In this sense the objective of the FCCC (or at least the time frame of that objective) and that of Article II of the ACPB mesh together quite nicely. Each is concerned with preserving a basic level of ecosystem function.

If the trigger is met the next question must be what are the parameters of the good faith duty to take ‘appropriate action’ to protect that ecosystem? Part of the answer is that inaction would be a breach of the obligation.⁸³ Another part of the answer is likely that

⁸³ I say this in part because that interpretation deprives the duty of any content which I believe to be an impermissible reading of the text. But I also believe that such a conclusion is also inconsistent with the ACPB as a conservation agreement representing a collective action response (see the preambular reference

adaptation measures also cannot be “appropriate” since failure to take any mitigation measures and continue a path of business as usual will cause the loss of ice cover in the arctic which scientists seem to be agreed will happen so quickly that polar bears will likely be unable to adapt. This suggests that appropriate action will require some combination of mitigation and adaptation measures.

As to mitigation, what measure of mitigation is appropriate? In principle the answer would seem to be that measure of mitigation anticipated by the objective of the FCCC as apportioned, in some appropriate way, as between contracting parties to the ACPB as well as other states. The FCCC itself does not quantify what the stabilization target might be and the IPCC has tended to offer a range of values. Furthermore, the FCCC does not allocate any quantified responsibility to particular countries. While the Kyoto Protocol begins to do this, but on a bid basis rather than a principled basis, and it is well recognized that Kyoto alone will not stabilize greenhouse gases at levels that will avoid significant warming. Perhaps the most that can be said is that mitigation by any Contracting Party that falls short of Kyoto commitments (either those actually made, or, in the case of the United States, agreed to during Kyoto negotiations and recorded in) represents a failure to take appropriate action within the meaning of Article 2 of the ACPB. In this sense I think that the ACPB does make a contribution to the normative discourse on climate change and offers a further way of engaging the United States as an Arctic power which acknowledges a special responsibility, over and above the responsibility of non-range states of the polar bear to protect the fauna, flora of the Arctic region and indeed arctic marine ecosystems.

to co-ordinated national measures) to a conservation problem, other authors (Fikkan et al) note that one of the purposes of the PBCA was to ensure that all states shared the burden of conservation so that a prohibition on hunting by one state was not nullified by another state that shared the same population continuing to harvest the resource. If we use this idea to inform our interpretation of “appropriate” we might be able to conclude that the arctic states also intended that each state share the burden of taking action to protect the arctic marine ecosystem. An interpretation of “appropriate” that allowed a state to free-ride on the protective steps taken by other states would hardly seem to be appropriate especially if that state contributed disproportionately to the problem.

It is worth emphasising that this interpretation of “appropriate action” in light of the defined threat to arctic ecosystems still affords each Contracting Party to the ACPB a broad discretion in how it goes about meeting that target. A follow-up question therefore would ask whether any of potential mitigation measures permitted by Kyoto should be eliminated given a Party’s obligations under the ACPB? Doelle poses this type of question in the context of the CBD and provides a useful analysis of different mitigation options before concluding that the most CBD-friendly option is conservation and efficiency.⁸⁴ In the context of the ACPB it is probably sufficient simply to argue that Parties should avoid any mitigation option that increases the pressure on critical bear habitat including denning areas, migration routes and areas where bears may aggregate for feeding. The most obvious implication of this would be to discourage parties from moving to gas as a more greenhouse friendly fuel than coal as a short-term transition option. This suggests that parties should avoid gas exploration and the construction of greenfield gas transportation infrastructure in polar bear habitat.

5.4.2 Adaptation measures

I have argued in the previous section that given the threat posed by climate change the contracting parties to the ACPB may be required to take some combination of mitigation measures and adaptation measures. The sorts of adaptation measures that Parties should consider should be those measures that will tend to buffer bear populations from threats other than global warming so as afford them the greatest possible opportunity to adapt to a changing climate. Such measures would include stricter and more extensive protection of denning areas and protection of migration routes. Furthermore any projects or decisions that might have the effect of increasing shipping in the Arctic and thereby perhaps further disrupting ice cover should be subject to particularly intensive scrutiny and safeguards. Other domestic measures might include re-assessing bears under any relevant endangered species legislation in order to generate stricter habitat protection requirements and no-jeopardy assessments for proposed government actions.

⁸⁴ See Doelle, Linking etc

5.4.3 Accommodation and Response Measures within the ACPB Regime

The discussion above emphasised that the ACPB lacks a standing institutional component. Furthermore, while the PBSG at least according to the assessment of some of those most closely involved, has provided an effective scientific forum for discussing polar bear research and the sustainable management of polar bear populations, it also seems fairly clear that the PBSG is isolated from the broader policy environment that affects polar bears and their habitat. Delegations to the PBSG meetings are composed of scientists who deliberately eschew broader public involvement.⁸⁵ The meetings are not diplomatic meetings and [I'm guessing a bit here and need to check] and those who attend do not generally do so with the sorts of instructions to delegations that usually inform and constrain the positions taken by delegates at CoP meetings for most MEAs. Thus while the PBSG has discussed climate change from time to time these discussions have not generally led to concrete action or policy changes but rather, and as one might expect given the composition of the group, to calls for more research.⁸⁶

All this said, the ACPB does offer one potential hook for raising the level of debate on the linked issue of polar bears and climate change which has yet to be used. This hook is the Article IX good faith duty to consult “with the object of giving further protection to polar bears”. It is perhaps time that one of the Contracting Parties triggered this duty.

6.0 CITES

6.1 Background

Adopted in 1973 CITES aims to protect listed species of wild fauna and flora from over exploitation as a result of international trade by regulating international trade in those species.⁸⁷ The commentary on CITES suggests that the international community chose to

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⁸⁶ Question: is the recent IUCN listing a possible exception to this?

⁸⁷ The reference to over exploitation comes from the fourth preambular paragraph of CITES.

protect threatened or endangered species by regulating international trade not only because trade was seen to be a principal driver in the exploitation of those species but also because an international agreement dealing with trade posed less of a threat to national and exclusive sovereignty over resources within its territory than would, say, an agreement regulating hunting or dealing with the protection of critical habitat.⁸⁸

CITES serves to regulate international trade for those species that are listed in one of the three Appendices to CITES. In addition to those species (such as polar bear) that were listed when the Convention first entered into force in 1975 a species may be added to an appendix by decision of the Conference of the Parties.

6.2 CITES and Climate Change

The Convention itself does not refer to climate change as one of the factors that may threaten species with extinction. This is hardly surprising. At the time that the Convention was negotiated climate change was not a significant concern. Furthermore, the Convention is principally concerned with over the exploitation of specific species that may be caused by international trade and is not concerned with the broader suite of factors that drive the loss of biological diversity on the planet.

That said, the climate change literature and the literature on biological diversity makes it clear that climate change has always contributed to changes (both positive and negative) in biological diversity and that climate change may cause some species that are not vulnerable to become vulnerable and may cause vulnerable species to decline further.⁸⁹ Much of the current concern is that the projected rate of change is too rapid for

⁸⁸See Laura H. Kosloff and Mark C. Trexler, *The Convention on International Trade in Endangered Species: Enforcement Theory and Practice in the United States* (1987), 5 *Boston University International Law Journal* 327 - 361 at 330, and 336 - 338. Sand. Other commentators argue that the range states have less than full sovereignty either because wildlife species are frequently shared or because of a more generalized community interest in the existence of species as a *common concern* (the language of the CBD) or even a common heritage: see, for example, Favre, *Debate within the CITES community ...* at 891 - 893 and at 896

⁸⁹ For example, climate change and ocean warming is thought to be an important cause of the loss of coral reefs as a result of the process of coral bleaching: Mary Gray Davidson, "Protecting Coral Reefs: The

many species to adapt. For example, IPCC's Working Group II offered the following (high confidence) summative statement of the effect of climate change on terrestrial and freshwater ecosystems.⁹⁰

Many species and populations are already at high risk, and are expected to be placed at greater risk by the synergy between climate change rendering portions of current habitat unsuitable for many species, and land-use change fragmenting habitats and raising obstacles to species migration. Without appropriate management, these pressures will cause some species currently classified as "critically endangered" to become extinct and the majority of those labeled "endangered or vulnerable" to become rarer, and thereby closer to extinction, in the 21st century.

It is therefore perhaps surprising that climate change has not been the subject of much discussion within the Conference of the Parties or within the key CoP committees, the Animals Committee, the Plants Committee and the Standing Committee.⁹¹ For example, two full text searches (July 2006) of CITES decisions and resolutions using each of the terms "climate change" and "global warming" produced no hits. A search that used the broader term "climate + change" produced one hit in the key CoP Resolution 9.24 (as modified at CoP 13) which is the Resolution that prescribes the listing criteria to be used when adding species to Annex I or II. I discuss that reference in some detail below but the fundamental point is that to this time the implications of climate change have not had much impact on CITES CoP decisions or resolutions. There is however some evidence

Principal National and International Legal Instruments" (2002), 26 Harv. Envtl L. Rev. 499 – 546 at 507 – 508. See Doelle, *supra* note at 79.

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⁹¹ But it is possible that the same pattern is observable in domestic treatment of threatened or endangered species. For example, Westoby and Burgman, "Climate change as a threatening process" (2006), 31 Austral Ecology 549 – 550 report on a survey of all 524 plants federally listed in Australia as endangered or critically endangered. They note that while the government's list of potential threatening processes includes climate change "only two reports on individual species mentioned climate change, and those only obliquely".

that regional reports to the Animals Committee and the Plants Committee are beginning to refer to the role of climate change.⁹²

[NB I would like to assess the extent to which climate change has actually been used in the CITES listing process since 1992.]

While climate change has yet to emerge as an important topic for the CITES CoP it seems possible to identify three ways in which it is likely to assume a heightened importance within the CITES system. First, climate change may be relevant to the listing process. Listing under the Convention is based upon two types of criteria. The content of the criteria vary depending upon the Appendix to which the species is to be added, but one criteria is trade related and the other criteria is biologically based i.e. there must be some threat to the species. Climate change clearly represents an important driver or threat and we can increasingly expect listing decisions to recognize this. Reference to the listing process includes decisions to add a new species, decisions to remove a species from the Appendices and decisions to uplist a species from Appendix I to Appendix II as well as split listing decisions.

Second, the impact of climate change may also be relevant to domestic authorities in fulfilling their obligations under the Convention when they decide to issue (or not issue) an export permit (or an import permit in the case of Appendix I) for a listed species.

Third, it is conceivable that climate change considerations might be relevant as part of the either of the two review procedures that CoP has adopted: (1) the significant trade review procedure for Appendix II species, and (2) the periodic review procedure.

The next four sections examine the potential role of climate change considerations in each of these procedures.

⁹² See for example, AC 22, Document 5.6 [date] the report of the Representative from Oceania placing trade in flora and fauna in the context of other environmental pressures including global climate change and referring specifically to the example of coral bleaching.

6.3 The lists and the listing process

A species may be listed on Appendix I if the species meets two criteria: (1) the species is “threatened with extinction” and (2) the species is or may be affected by trade. The “fundamental principle” (Article II(1)) is that “trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.” Article III of the Convention stipulates that “particularly strict” regulation requires that the export of any specimen of a species requires the “prior grant and presentation” of both an export permit and an import permit.

A species may be listed on Appendix II in one of two circumstances. First, (Article II(2)(a)) a species should be listed on Appendix II if the species, while not now threatened with extinction, may become so unless trade in that species is subject to strict regulation “in order to avoid utilization incompatible with their survival”. Second, (Article II(2)(b)) a species may be listed on Appendix II if it is necessary to do so in order to provide effective control over the trade of a species under the first branch. This is the “look alike” provision and it follows that a species may be listed here even if it is not itself threatened in any way. Trade in an Appendix II species is subject to a lower level of control and requires only the prior grant and presentation of an export permit (Article III(2)). Polar bears have been listed on Appendix II since 1975 when the Convention originally entered into force.⁹³

A species may be listed in Appendix III where a party regulates that species within its jurisdiction in order to prevent or restrict the regulation of that species and that party needs the co-operation of other Parties in order to control trade in that species. Exports from a party that has listed the species on Appendix III require the prior grant and presentation of an export permit. Canada listed polar bear on Appendix III between 1975 and 1977.

⁹³ Canada filed a reservation to polar bear when it ratified and listed the species on Appendix III: see Checklist of CITES Species. Canada withdrew its reservation and its Appendix III listing in 1977. No other Party has filed a reservation or listed polar bear on Appendix III.

Article XV of the Convention outlines the procedure for amending the appendices and subsequent CoP decisions have elaborated upon this procedure as well as the criteria for listing. The original listing criteria (the Berne Criteria) were adopted in 1976 at COP 1. They were subsequently amended in 1994 at CoP 9 in Fort Lauderdale, Florida (the Fort Lauderdale criteria or FLC). Commentators⁹⁴ generally agree that the Fort Lauderdale criteria were intended to make the listing process more scientific but it bears emphasising that, ultimately, the listing decision is taken by the Conference of the Parties which is a political rather than an expert scientific body.⁹⁵

Article XV contemplates the same procedure for amending either Appendix I or II. Putting to one side the inter-sessional emergency listing procedure, Article XV provides that any party⁹⁶ may propose an amendment to either Appendix before a meeting of the CoP. An amendment requires a two thirds majority in order to be adopted. Once adopted the amendment enters into force automatically for all Parties except those that make a reservation within a ninety day period. An amendment is not binding on a party that makes a reservation and that state will be treated as a non-party⁹⁷ for the purposes of trade in that species.⁹⁸ A state may lift its reservation at any time but the Convention does

⁹⁴See, for example, Shawn Dansky, 'The CITES Listing Criteria: Are they Objective enough to protect the African Elephant?' (1999), 73 *Tulane Law Review* 961 - 979.

⁹⁵Sand. An unsigned commentary in the *Harvard Law Review* argues that even though the FLC criteria may not in the end result in more scientific decisions they may at least cause parties to couch their arguments in terms of science: 'The CITES and Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decision Making' (2001), 114 *Harvard Law Review* 1769 - 1792

⁹⁶Listing is not a prerogative of the range states of the affected species. This has caused some tension on occasion and the CoP has adopted various resolutions [NB see 8.21 - need to add to this and also look at the format for proposals] calling for the range states to be consulted but the text of the Convention does not afford range states any particular status in the listing process but simply provides that the secretariat shall consult all parties, along with expert scientific bodies, on any proposed amendments. Note as well that while scientific bodies are to be consulted there is no reference to consultation with indigenous peoples whose interests might be affected by a listing decision. See the discussion in Favre 'Debate' at 896 - 897 of the proposal from the so-called Consumptive Use Block at Kyoto CoP 8 to provide that range states should be able to veto a proposed listing where two-thirds of such states voted against.

⁹⁷See

⁹⁸For discussions of the reservation procedure see Jorgen Thomsen and Amie Brautigam, 'CITES in the European Economic Community: who benefits?' (1987), 5 *Boston University International Law*

not permit a state to impose a reservation at a later time (i.e. after it has already become bound by an amendment).⁹⁹

6.3.1 The criteria for listing

As noted above the Fort Lauderdale criteria have governed the listing process for Appendix I and II species since 1994. The FLC do not apply to Appendix III species. The FLC are set out in a relatively complex document consisting of a preamble and operative resolution accompanied by six appendices. The preamble to the criteria recognizes that species must meet both biological and trade criteria to justify listing. The preamble also emphasizes that the precautionary approach of Rio 15 should be applied in cases of uncertainty. The document contains only one reference to climate change although as we will see climate change may have additional bearing on the listing process in addition to that single reference.

6.3.1.1 Appendix I listing

The operative part of the resolution stipulates that a species that is or may be affected by trade should be included in Appendix I if it meets at least one of the biological criteria listed in Annex 1. A species is “affected by trade” if the species is known to be in trade and that trade has or may have a detrimental impact on the status of the species or it is

Journal 269 - 287 at 272 discussing the practice of EEC states with respect to reservation and noting that the Commission required member states to withdraw all reservations as xx, Paul Matthews, *Problems related to the Convention on the International Trade in Endangered Species* (1996), 45 ICLQ421 - 431 noting that reservations may be highly problematic if the source state is not a party and key importing states file reservations, Sand at characterizes this as an example of the free rider problem, and Gwyneth G. Stewart, “Enforcement problems in the endangered species convention: reservations regarding the reservation clauses” (1981), 14 Cornell Int’l L. J. 429 - 455 (the most extensive discussion commenting on the rationale for the provision, providing short case studies for saltwater crocodile and turtle and proposing two amendments to limit the use of reservations).

⁹⁹It may be possible for a state to denounce the Convention and then subsequently rejoin and make a reservation to any item on the current list. For a discussion of this strategy in the context of the IWC see Gillespie

suspected to be in trade or there is demonstrable demand for the species that may be detrimental to its survival in the wild.¹⁰⁰

A species should only be downlisted to Annex II if there are sufficient data available to demonstrate that it does not meet Annex I criteria and in accordance with the “precautionary measures” of Annex 4.

Annex 1 offers three biological criteria each of which is subject to further elaboration: small population, restricted area of distribution and marked decline in population size. Much of the detail of the criteria do not concern us here but it is important to emphasise that one factor that is always relevant to a listing decision based upon any of these three broad categories is “high vulnerability to either intrinsic or extrinsic factors”. The definition Annex (Annex 5) offers further elaboration of the concepts of vulnerability and intrinsic and extrinsic factors. “Vulnerability” refers to vulnerability to the risk of extinction and intrinsic factors include life history (e.g. low fecundity, high age before able to breed), population structure, behavioural factors (.g. migration), specialized niche requirements (e.g. diet or habitat), species associations. Extrinsic factors include threats from alien invasive species, habitat degradation, loss or fragmentation, threats from disease and threats from rapid environmental change (e.g. climate regime shifts).

In sum the effects of climate change will be taken into account in various ways as part of a proposal to list a species in Appendix I. First, climate change may be taken into account explicitly as part of an assessment of the vulnerability of the species to particular extrinsic factors. Second, the observed effects of climate change on a species like polar bear may support arguments that there has been a decrease in available habitat or if loss of ice cover leads to longer fasting periods impairing reproduction and therefore marked declines in population. But in each case a proposal to uplist must also be able to satisfy the trade criterion as well.

Appendix II Listing

¹⁰⁰ See the definition in Appendix 5.

Polar bears are already listed on Appendix II but it may still be important to ascertain the extent to which the criteria for Appendix II listing acknowledge, if at all, the significance of climate change. The criteria for an Appendix II listing are divided between listings for those species that require protection themselves and those species that will be proposed for listing just because of their look-alike status. In each case the criteria are short but I shall only review the first category. The criteria provide that a species should be included when, on the basis of trade data and information on the status and trends of the wild population (and here implicitly one must read in a reference to the Convention standard that the species must be listed in order to avoid being threatened with extinction) one of the following two criteria is met:

A. It is known, or can be inferred or projected, that the regulation of trade in the species is necessary to avoid it becoming eligible for inclusion in Appendix I in the near future, or

B. It is known, or can be inferred or projected, that regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

The term “near future” is taxon specific and “refers to a time period in which it can be projected or inferred that a species would satisfy one (or more) of the criteria in Annex I, unless it is include din Appendix II. This ... should be greater than 5 years and less than 10 years.”

In sum these criteria make no reference to climate change themselves but incorporate some reference more all less indirectly because of the link created by the overall objective of avoiding an Appendix I listing for the species.

6.3.2 Domestic decisions in relation to the export of listed species

It is stated to be a “fundamental principle” (Article II(1)) of the Convention that “trade in specimens of [Appendix I] species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.” Article III of the Convention interprets this as requiring that the export of any specimen of a species requires the “prior grant and presentation” of both an export permit and an import permit. By contrast trade in Appendix II species requires only the prior grant and approval of an export permit. It seems clear therefore that the decision to require an import permit in the case of Appendix I species was not intended to be merely a rubber stamp of the decision already made by the range state but requires the exercise of some independent judgment by the state of import.

The conditions for the grant of an export permit are essentially identical for each of Appendix I and II species. Thus the state of export may only issue an export permit when its Scientific Authority provides a “no detriment” opinion i.e. an opinion that the proposed export “will not be detrimental to the survival of that species” and when its Management Authority satisfies itself that: (a) the specimen was not obtained in contravention of the laws of that State, (b) if the specimen is a living specimen that it will be prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment and (c) that an import permit has been granted for the specimen.

Although Article IV does not require an import permit for Appendix II species paragraph 3 of that Article imposes a far reaching obligation on the Scientific Authority of each Party (which must refer at least to the party of import and export) to monitor both the export permit and the actual exports. Where, through that monitoring, a Scientific Authority determines that exports should be limited “in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I” that Authority shall advise the appropriate Management Authority of suitable measures to limit the grant of export permits. The CITES CoP has recognized that in many cases a single state will be unable to fulfill its responsibilities under this paragraph unilaterally insofar as the clause invites the Scientific Authority to have regard

to the role and status of the species throughout its range and not just within that particular state.¹⁰¹ The original CoP resolution on the subject contemplated that the Technical Committee, at the request of one of the range states, should facilitate the negotiation of appropriate measures of agreements to ensure that Article IV(3) can be satisfied. More recently a concern such as this is more likely to be raised and dealt with as part of the procedure for the review of significant trade (dealt with below).

The conditions that must be satisfied before an import permit may be granted in relation to Appendix I species are: (1) a no detriment finding from the importing state's scientific authority, (2) where the specimen is a live specimen a finding that the recipient can adequately provide for the specimen, and (3) a finding by the Management Authority that the specimen will not be used primarily for commercial purposes.

Of all of the conditions it is the "no detriment" finding that is of most interest here. In the case of Appendix I species there will be two no detriment findings. In the case of Appendix II species only the state of export is required to make a no detriment finding.

6.3.2.1 The no detriment finding

A finding that the proposed export will not be detrimental to the survival of the species is as David Favre puts it "an affirmative statement of a negative state" which "is different from saying that a scientific authority must show that a proposed permit will be detrimental".¹⁰² Thus, if there is inadequate evidence to make the assessment it ought to follow that the SA should not grant the permit. What sort of evidence then should suffice? Favre argues that survivability is a function of habitat and a sufficiently large breeding population, and that since CITES does not deal with habitat concerns the SA must be able to determine whether a proposed export will have an adverse effect on the gene pool or population level of the species at issue. Obviously one would not expect the

¹⁰¹ CoP Resolution 4.7, Regulation of Trade in Appendix II Wildlife and Implementation of Article IV, paragraph 3 of the Convention.

¹⁰² David S. Favre, *International Trade in Endangered Species: A guide to CITES*, Martinus Nijhoff, 1989, at 63.

SA to prepare a new “no detriment” report for each permit application but it is reasonable to expect that a no detriment statement might be based upon the type of status report (with regular updates) that is typically prepared as part of a domestic listing assessment under endangered species or other similar legislation. In the case of the export of polar bears harvested in Canada the no detriment finding is based upon an annual review of the status of the various populations most of which are subject to quota limitations.

Is it reasonable to think that an assessment of the effects of climate change might inform the no-detriment assessment? This seems unlikely. While climate change will undoubtedly affect domestic assessments of the status of species such as polar bear and may also lead domestic authorities to reduce quotas as part of a management response this in itself is unlikely to change a no detriment finding with respect to a bear harvested within the quota. This is because the no detriment finding relates to the export and there will be no evidence to support the claim that trade itself is detrimental. The COSEWIC assessment for polar bears makes this point when it emphasises that the non-resident sport or conservation hunt for bears comes out of an existing quota and since a conservation hunt tag cannot be re-issued the introduction of a conservation hunt actually reduces the total annual kill.¹⁰³ Hence, so long as some level of harvest is sustainable, the fact that hides obtained through that harvest may be exported should not itself be evidence of a trade-based problem that puts increased pressure on the resource.

6.3.3 The review of significant trade procedure (RST)

The procedure for the review of significant trade in relation to Appendix II grew out of concerns that Appendix II species were in fact being traded without the benefit of “non-detriment” findings.¹⁰⁴ The procedure has evolved over time and the current procedure is prescribed by Resolution 12.8, (2002) as revised at CoP 13 (2004). The procedure directs the Animals and Plants Committees to select species for scrutiny based upon a review of

¹⁰³ Stirling and Taylor at 8.

¹⁰⁴ Document 8.30, 1992, Report from the Animals Committee, Significant Trade in Appendix II species. See also Rosalind Reeve, *Policing International Trade in Endangered Species: The CITES Treaty and Compliance*, 2002, especially chapter 7.

trade data and to prioritize those species selected for review based upon its own assessment of the date and the advice of experts. In exceptional circumstances where new information indicates an urgent concern a Committee might add a species to the review list.¹⁰⁵ As a second step the Secretariat is directed to notify range states providing an explanation for the selection and seeking comments “regarding possible problems in implementing Article IV”. State responses will typically try to identify how the state was able to reach its detriment findings and the scientific basis of those assessments. Following a review the Committee may end its assessment if it concludes that Article IV is being correctly implemented. Alternatively, where the assessment cannot be terminated on that basis, the Secretariat, assisted by consultants as appropriate, is required to compile information on the biology and management of trade in the species and provisionally assess the species as being of urgent concern, possible concern or least concern, all with respect to an assessment as to whether or not the provisions of Article IV are being properly implemented. Range states are given the opportunity to respond.

Species of least concern will then be eliminated from further review but for the remaining two categories the Committees are directed to formulate recommendations and implementation deadlines for the range states concerned. For species of urgent concern this may involve the setting of cautious export quotas, the application of adaptive management procedures and the conducting of status assessments “or evaluation of threats to populations or other relevant factors to provide the basis for” a non-detriment finding. Similar recommendations may be made for species of possible concern.

An assessment of whether the recommendations have been implemented is to be made by the Secretariat in consultation with the chairs of the respective committee. If the recommendations are met the review is terminated, if not, the Secretariat following further consultation is to make recommendations to the Standing Committee of

¹⁰⁵ An arctic example is the 2005 decision of the Animals Committee to add the Canadian and Greenlandic populations of narwhal to the review list, AC 21, Summary Record, at 8. That decision was based upon a submission from the European representative on the AC which drew attention to recent stock assessments and difficulties with Greenland’s reporting. The review was ultimately terminated AC 22, July 2006 (see ENB Summary) when Greenland imposed a voluntary ban on exports but the AC indicated that the review might be renewed should trade be renewed.

appropriate action which “may include as a last resort, a suspension of trade in the affected species with that State”.

As with the no detriment finding it seems unlikely that the impacts of climate change will figure in a major way in the RST. The reason for this is principally that the review process is initiated and driven by trade data. However, it is possible that Committee recommendations of stock assessments or evaluations of threat assessments may draw attention to the role of climate change in relation to at least some species and may require the adoption of management measures that may serve as appropriate adaptive strategies for populations that may be vulnerable to climate change as well as trade based pressures to harvest.

6.3.4 The periodic review process

In addition to a review that may triggered by an assessment of significant trade, or a review that may be triggered by a Party who wishes to see a species up-listed or downlisted, the CoP has, over the years, also authorized various procedures designed to assess whether particular species are appropriately included in Appendix I or II. Initially these reviews focused on species that were on the original lists and were perhaps included without a rigorous scientific assessment since they were not subject to assessment based on the original Berne or Fort Lauderdale listing criteria.¹⁰⁶ Later the CoP opted for a ten year review process (CoP 3, 1981?) while the current scheme is based upon the terms of reference for the two main technical committees, the Animals Committee and the Plants Committee.

The current resolution on the establishment of Committees, Conf.11.1, Annex 2 recognizes in one of the recitals that “an effective method of evaluating whether a species is appropriately listed in the CITES Appendices requires a periodic review of its biological and trade status.” The operative part of the Annex requires that each

¹⁰⁶ For the background see Favre, *International Trade*, *supra* note, at 48 et seq and discussing Conf. 1.6 and 2.23

Committee undertake that review and to that end: (1) establish a schedule, (2) identify problems or potential problems concerning the biological status of species being traded, (3) consult Parties including range states, and (4) prepare and submit amendments as required for the Depositary Government to table. These two Committees in conjunction with the Standing Committee have elaborated further guidelines to assist the selection process and to guide the review process.¹⁰⁷ The procedure excludes from the review species that have recently been listed or proposed as well as species that are subject to some other CoP sanctioned review process. The four-tiered review process contemplates selecting species based on trade data outputs followed by the completion of an abridged species review, selection of taxa for an abridged in-depth review (an oxymoron if ever there was one) and if necessary a full in-depth review. The guidelines emphasise the importance of attempting to get the full involvement of the range states and where up-listing is an outcome expresses the preference that one of the range states should assume responsibility for making that proposal to CoP, thereby using the Depositary Government as a last resort. For present purposes it is perhaps adequate to note that there is no suggestion in any of the documents that “perceived vulnerability to climate change” or some other similarly worded criterion should be an important criterion to help select which species should be subject to the periodic review procedure.

In conducting the reviews the reviewer will apply the same criteria that are applied to any proposal to amend the appendices. I have discussed these criteria above and the overall conclusions apply here as well.

6.4 Assessment

The next and concluding sections of this paper analyse the CITES system in light of the three groups of questions I posed in the introduction thereby completing the analysis already undertaken in relation to the ACPB.

¹⁰⁷ See AC 21 Doc. 11.1 (Rev. 1), Periodic Review of animal species included in CITES Appendices, Selection of Species. This document contains a useful background statement and reproduces SC 51 Doc. 16 which contains the Recommendations of the Standing Committee on Periodic Review (Bangkok, October 2004) as well as a set of Guidelines prepared by an intersessional contact group of the Animals and Plants Committees (AC 20, Doc. 10(Rev. 1).

6.4.1 Mitigation measures

While the goal of CITES is the protection of natural systems of the world for this and future generations as well as the wild fauna and flora that are “an irreplaceable part”¹⁰⁸ of such systems the principal vehicle adopted by CITES to achieve this goal is the control of international trade in species that are threatened with extinction or may become so threatened. This focus of the Convention means that one cannot read the Convention as providing additional normative reasons for Contracting Parties to take mitigation measures such as those contemplated by the Kyoto Protocol. All of the obligations (and they are hard) of the CITES Parties relate to trade measures. The agreement does not provide more general obligations to protect ecosystems or critical habitat.

For the same reason it is also impossible to read CITES as constraining the choice of mitigation measures that a Party to CITES might adopt. The most that can be said is that if a range state wishes to continue to engage in limited trade in an Appendix II species or a quota trade in Appendix I species for conservation or trophy hunting purposes, then it must of course take steps to ensure that its selection of mitigation measures does not impair critical habitat of the species to the extent that its Scientific Authority is unable to conclude that trade will not be detrimental to the survival of the species in the wild.

6.4.2 Adaptation Measures

It is similarly difficult to read CITES as requiring the implementation of specific adaptation measures in order to protect listed species. Once again the most that can be said is that a range state may find it in its best interest to take measures (such as those discussed above in the context of the PBCA) if it wishes to authorize continued harvest and export of listed species that may be threatened by climate change.

6.4.3 Accommodation and response measures within the CITES system

¹⁰⁸ Preamble.

My review of CITES documentation to this point [I can't claim to have done an exhaustive assessment at this time] has surprised me. I expected that climate change and the impact of climate change on the status of listed species and species proposed for listing would have assumed some greater salience within the CITES system and that that salience would be reflected in CoP decisions and resolutions and in the deliberations of the various committees. That hypothesis was based on two observations: first, the well known link between climate change and loss of species, and second, the knowledge that climate change had assumed significant salience for other MEAs including the CBD and Ramsar. But my hypothesis has not been borne out which leads to two further questions: Why? And could it and should it be different?

I think that the principal reason why climate change issues have not assumed any salience within CITES is simply that CITES' focus is trade. This has several implications. First, no species can be listed, however endangered, unless the species is affected by trade or would be affected by trade unless it were listed. Second, while the listing process is driven by both biological concerns and trade concerns, trade is the more significant driver when it comes to reviewing the status of species. This is most obviously the case for the Significant Trade Review procedure but it is clearly also an important element in regular review procedure, especially in terms of selecting species for that review process.

Could it or should it be different? As I stated in the introduction to this section on CITES, CITES was adopted by the Contracting Parties as a means of dealing with global extinction not because of an assessment that international trade was the most significant driver of extinction processes but because it was a more palatable and less invasive (of sovereignty) means of dealing with the issue than an international agreement providing for in situ conservation or some form of global endangered species act. The adoption of the CBD and its exceptionally soft normative language only serves to confirm the reluctance of states to assume hard obligations in relation to threatened or endangered species. Hence, while it is possible to imagine a process like "a significant climate change review" modeled on the significant trade review it seems unlikely that the Contracting

Parties to CITES would adopt such an approach. It seems more likely that the Parties would argue that such a procedure would fall outside the jurisdiction of a trade-based agreement or, if not beyond jurisdiction, should be more appropriately be handled by the CBD. Short of a separate climate-change-driven review process it is conceivable that climate change might assume more significance within the regular periodic review process. For example, vulnerability to climate change might be proposed as one of the criteria that the two Committees consider in establishing their priorities.

Should climate change assume greater salience within CITES? The most significant reason for affording it greater salience would be to draw greater political and public attention to the effects of climate change. A change in CITES status attributable to climate change, especially if the species were an example of charismatic mega fauna, would highlight the impact of climate change and provide further visible and concrete examples of that impact.

Further research

Need to do more detailed review and assessment of CITES materials especially listing proposals and outcomes of regular reviews in order to assess the extent to which climate change is actually cited as an important threat.