Using the Polar Bear Framework to Protect the Arctic Habitat

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Listing the polar bear as a threatened species is the predominant manner in which protection and preservation of the Arctic habitat might be achieved. The U.S. Geological Survey issued a final report on the status of the polar bear on September 7, 2007. The U.S. Fish and Wildlife Service, however, has missed its deadline to list the polar bear as a threatened animal. As a result, three non-profit conservation groups sued the Bush Administration on March 10, 2008, requesting that the court require the agency to comply with the timeline for completing the listing process.

If finally implemented, the protections granted to the polar bear could be used to initiate protection of Arctic habitat. Listing the polar bear would require the federal government to ensure that its actions and policies do not harm or jeopardize the bears. It would also prevent habitat modification where there is a showing of actual injury to wildlife. Further precautions protecting the polar bear would be the designation of a critical habitat zone and the preparation of a recovery plan.

While the regulatory process could potentially provide much protection from future habitat loss and contamination, concentrating on the polar bear as the primary protection mechanism simplifies the situation and ignores major factors currently contributing to habitat loss. Among the most pertinent hazards facing the Arctic are global warming, traveling chemical pollutants, and encroaching human activities.

Greenhouse gases in the Arctic have led to an annual temperature increase nearly twice that observed in other regions of the Earth. One major result of this increased temperature manifested itself further during the 2007 annual summer ice melt when the ice coverage reached a new low of 1.59 million square miles, which constituted a loss of nearly 460,000 square miles. The loss of ice compounds the problem by reducing the amount of light that is reflected from the Earth back into space, which results in a greater absorption of heat, contributing to further ice loss. The loss of ice has also led to an increase in coastal erosion throughout the region, which has even resulted in calling for the costly move of entire towns in Alaska. The ice loss is especially pertinent to polar bears, whose main habitat consists of coastal polar ice caps. For the polar bear framework to stem global warming, the federal government would also have to effect a reduction of greenhouse gas emissions.

Global warming, however, is not the only threat to the region. In the 1950s, researchers first came to believe that a wide array of chemical pollutants, which originated outside the Arctic, arrived to the Arctic via several pathways, including air, water, ice, and migratory animals. While some of the pathways result in quick delivery to the Arctic, others take years and decades to transport the chemical pollutants to their destination. The various routes and protracted delay in chemicals arriving to the Arctic makes preventing contamination difficult in the short run.

The Arctic habitat is further threatened by human encroachment related to mineral exploration and development, logging, and rural expansion. Expansions in human activity led to further construction of roads, trails, pipelines, and other developments that fragment and isolate habitats. The continued reduction in ice coverage and increasing demand for oil has already begun to yield an increase in commercial exploration throughout the area, which could further exacerbate the diminishing polar habitat, depending on the expanse of the polar bear habitat.

The effects of global warming and human interaction combine to affect regional land ecosystems. Trees and shrubs are currently expanding into what was once the tundra at a rate that far exceeds previous predictions. This northward advancement of the forest results in both a trend in movement of animal species and an increased risk for other species that have not adapted as readily. Specifically, millions of migratory birds that use the tundra as a breeding ground are affected.

While it is possible that listing the polar bear as a threatened species could result in protection of parts of the Arctic, the specific location of the polar bears’ habitats could leave other areas of the Arctic open to further commercialization and to additional encroachment of human settlements, destroying habitat that is vital to polar bears and other species upon which it depends for sustenance. Working within the polar bear framework could provide for substantial protection to the entire Arctic if interpreted broadly enough; however, further protections would still be needed to truly protect the Arctic from both global warming and expanding trade routes in the area.

Endnotes: Using the Polar Bear Framework continued on page 63

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it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;
c. prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State’s rights of or claim or basis of claim to territorial sovereignty in Antarctica.
2. No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.

For a definitive analysis of the ambiguities and inconsistencies embodied in Article IV, see Watts, supra note 6, at 124–40; Triggs, supra note 9, at 199–204.


59 See Triggs, supra note 9, at 203; see also Marcus Haward et al., Australia’s Antarctic Agenda, 60 AUSTRALIAN J. INT’L AFFAIRS 439, 443 (2006) (noting that the controversy surrounding Australian Antarctic maritime claims has only been resolved by Australian forbearance from jurisdictionally “enforcing territorial sea or exclusive economic zone rights”); JEFFREY D. MYPRE, THE ANTARCTIC TREATY SYSTEM: POLITICS, LAW AND DIPLOMACY 37 (1986) (recognizing it is fortunate that Antarctic Treaty parties have not exercised jurisdiction over non-nationals).


62 Orrego Vicuña, The Antarctic Treaty System: A Viable Alternative for the Regulation of Resource-oriented Activities, in THE ANTARCTIC TREATY REGIME: LAW, ENVIRONMENT AND RESOURCES 71 (Triggs, ed., 1987) (stating that “all of the activities taking place in Antarctic are closely bound together because of their very nature, and all of them have an effect on the values protected by the [Antarctic Treaty]”).


64 In my view, both ends of the spectrum of the whaling debate (prohibition in perpetuity v. open commercial whaling) are unreasonable and wrong. That, however, is a matter for a different article.


69 Karl-Hermann Kock, Antarctic Marine Living Resources—exploitation and its management in the Southern Ocean, 19 ANTARCTIC J. 231, 236 (2007) (explaining that it is possible to conduct sustainable commercial whaling of a number of minke whale stocks today).


71 Energy Information Administration, Antarctica—Fact Sheet (Sept. 2000) available at http://www.eia.doe.gov/emeu/cabs/antarctica2.html (last visited Apr. 10, 2008). In 2000, the U.S. Energy Information Administration reported that “[t]he continental shelf of Antarctica is considered to hold the region’s greatest potential for oil exploration projects, and although estimates vary as to the abundance of oil in Antarctica, the Weddell and Ross Sea areas alone are expected to possess 50 billion barrels of oil—all amount roughly equivalent to that of Alaska’s known reserves.”
ENDNOTES: SUPPORTING ADAPTATION continued from page 29


16 Watt-Cloutier, supra note 4.


19 Canadian Charter of Rights and Freedoms, 1982, s. 25(b).


21 ASSESSMENT, supra note 2.


23 UNFCCC, supra note 22, art. 2.

24 AVOIDING DANGEROUS CLIMATE CHANGE (H. J. Schellnhuber et al. eds., 2006).


26 UNFCCC, supra note 22.

27 UNFCCC, supra note 22, art. 4.1(b).

28 UNFCCC, supra note 22, art. 4(e).


32 James Ford et al., Reducing Vulnerability to Climate Change in the Arctic: The Case of Nunavut, Canada, 60 ARCTIC 150 (2007).

33 R. Ambrose, Notes for an address to the UNFCCC Workshop on the Adaptation Fund (Edmonton, Alberta 2006).

34 Ford et al., supra note 32.

35 UNFCCC, supra note 22, art. 2.

36 IPCC, supra note 1; see also, T. M. L. Wigley, The Climate Change Commitment, 307 SCI. 1766 (2005).

37 Lenton, supra note 25.

38 Budreau & McBean, supra note 20; see also, John Newton et al., Climate Change and Natural Hazards in Northern Canada: Integrating Indigenous Perspectives with Government Policy, 10 MITIGATION AND ADAPTATION STRATEGIES FOR GLOBAL CHANGE 541 (2005).

39 James D. Ford et al., Climate Change in the Arctic: Current and Future Vulnerability in Two Inuit Communities in Canada, 174 GEOGRAPHICAL J. 45 (2008).


41 James D. Ford et al., Vulnerability to Climate Change in Igloolik, Nunavut: What We Can Learn from the Past and Present, 42 POLAR REC. 127 (2006).

42 Ford et al., supra note 32.


44 Ford et al., supra note 39.

45 Ford et al., supra note 32.


47 Ford et al., supra note 32.

48 Budreau & McBean, supra note 20; see also, John Newton et al., Climate Change and Natural Hazards in Northern Canada: Integrating Indigenous Perspectives with Government Policy, 10 MITIGATION AND ADAPTATION STRATEGIES FOR GLOBAL CHANGE 541 (2005).

49 UNFCCC Bali Action Plan, supra note 31.


51 UNFCCC, supra note 22, art. 4.1(e)

52 Budreau & McBean, supra note 20.

53 UNFCCC, supra note 22.

54 Ford et al., supra note 39.

ENDNOTES: SEARCHING FOR VOICE continued from page 30

17 Weller et al., supra note 9, at 998.