

Potential Challenges to the Antarctic Treaty

Christopher C. Joyner

The 1959 Antarctic Treaty has as its principal purposes to ensure “in the interests of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord” and to use the science performed there to benefit the entire planet.¹ More than 50 years on, this accord has proved to be a remarkable multilateral instrument and, in many ways, is unique among international legal agreements. It is simple, straightforward, and succinct. It consists of 2,364 words contained in only seven pages set out elegantly in a preamble and 14 articles. Notwithstanding its conspicuous brevity, and the fact that seven of the original treaty parties assert claims to territory on the continent,² what the treaty provides for in those legal provisions is huge, indeed. Moreover, the Antarctic Treaty has also demonstrated considerable adaptability and resiliency as it evolved from a single instrument into a robust regional regime containing four new instruments since its inception: the 1964 Agreed Measures for the Protection of Flora and Fauna,³ the 1972 Convention on the Conservation of Antarctic Seals,⁴ the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR),⁵ and the 1991 Protocol on Environmental Protection to the Antarctic Treaty (Environmental Protocol).⁶ Notwithstanding the successful evolution of this legal regime,⁷ in recent years three issues have surfaced that could challenge the legal integrity and political viability of this regional treaty regime.

The first challenge involves the possible conflict between claimant and non-claimant governments over access to possible hydrocarbon resources offshore the continent. At the regulatory heart of this potential rush to secure access to as yet undiscovered south polar hydrocarbons lies Article 76 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS).⁸ Indeed, Article 76 provides the legal means by which coastal states can gain sovereignty over vast areas of submarine continental shelf areas offshore their coasts, areas that might hold enormous reserves of hydrocarbon resources. To that end, Antarctic claimant states have made either full or partial submissions to the UN Commission on the Limits of the Continental Shelf (CLCS), as provided for in Article 76, concerning the possibility of asserting continental shelf claims offshore their claimed Antarctic territories. Australia was the first claimant to make a submission to the CLCS and did so in November 2004.⁹ The submission by New Zealand was

Christopher C. Joyner, Department of Government, Georgetown University, Washington, D.C. 20057, USA. Correspondence: joynerc@georgetown.edu

filed with the CLCS in April 2006, although it excluded a prospective outer continental shelf claim offshore its claimed sector in Antarctica.¹⁰ Argentina made its submission with the CLCS in April 2009, which included a map and geographical coordinating for outer continental shelf limits overlapping the Antarctic Peninsula.¹¹ Norway filed a partial submission to the CLCS in May 2009, in which Dronning Maud Land was included.¹² Chile made its submission in the form of a “Preliminary Information” statement to the CLCS in May 2009.¹³ The United Kingdom made two public communications concerning its outer continental shelf claims in the Antarctic, one in a note on 9 May 2008 to the UN Secretary General, which indicated that United Kingdom would be making in 2009 “a partial submission” that “will not include areas of the continental shelf areas appurtenant to Antarctica, for which a submission may be made later.”¹⁴ Although France has not formulated any specific outer continental shelf claim offshore its claimed territory in Antarctica (Adelie Land), it did note in a “partial submission” to the UN Secretary General in February 2009 that such an offshore zone might well exist, for which a submission may later be made.¹⁵

The implications of potential continental shelf claims and the possibility of mineral and hydrocarbon resource development clearly weigh on the minds of many Antarctic Treaty Consultative Party (ATCP) governments. That these concerns are real was demonstrated in April 2009 in the Ministerial Declaration on the Fiftieth Anniversary of the Antarctic Treaty, issued at the beginning of the 32nd Antarctic Treaty Consultative Meeting.¹⁶ In that document, the Consultative Parties pledged to “Reaffirm the importance they attach to the contribution made by the Treaty, and by Article IV in particular, to ensuring the continuance of international harmony in Antarctica.” Likewise, the ATCPs also pledged to “Reaffirm their commitment to Article 7 of the Environmental Protocol, which prohibits any activity relating to mineral resources, other than scientific research.” The declaration was designed to reiterate support for the basic tenets of the Antarctic Treaty System, especially key elements such as Article IV of the treaty and Article 7 of the Environmental Protocol. These two elements were emphasized in particular because they remain fundamental to the continuing health of the Antarctic Treaty regime.

In sum, two potential political problems are posed by these partial claimant state continental shelf submissions, either of which could have unsettling impacts on the stability of the Antarctic Treaty. First, if pushed on to full submission, these claimant state assertions would resurrect the dispute over the status of national sovereignty

claims on the continent. Second, the allegation is bound to arise from nonclaimant governments that these submissions are actually extensions of claims made prior to 1959 or even new claims made by each state. Since 1961 when the Antarctic Treaty entered into force, both these critical complications have been held in check by the ingenious construction of its Article IV, and the political willingness of the claimant government not to push the sovereignty issue. Prudence suggests that all the ATCPs ought to view their national interest as being best served by preserving the integrity of the present system, rather than risk politically unraveling it for the sake of asserting claims over unknown (and very likely unrecoverable) continental shelf hydrocarbon resources.

A second potential challenge to the integrity of the Antarctic Treaty is biological prospecting, or bioprospecting, in the region and the potential conflicts these activities might generate among Treaty Parties. Increasing scientific research on flora and fauna in and around Antarctica is being conducted with the aim of discovering commercially beneficial genetic and biochemical resources. Growing commercial interest in Antarctic genetic resources is evident, as indicated by the fact that products from Antarctic genetic resources are already being marketed by several companies, including nutraceuticals from krill oil, antifreeze proteins, anticancer drugs, enzymes, and compounds for cosmetic products. Much of this commercial activity focuses on the marine environment, in particular, the crustacean krill. Nearly 200 research organizations and companies from 27 states are undertaking research for commercial purposes in the Antarctic. Amongst the major sponsoring states are Japan, United States, Spain, United Kingdom, Korea, Canada, Sweden, Russia, China, Chile, New Zealand, France, Belgium, India, Denmark, the Netherlands, Germany, and Poland, all ATCPs. The most entries in the recently constructed Antarctic Bioprospecting Database originate from Japan and mainly focus on organisms in the marine environment, principally Antarctic krill. The second largest number of entries originate from United States, most of which also focus on marine biota, especially krill, bacteria, and fish.

The *raison d'être* of the Antarctic Treaty is to ensure peaceful uses only and opportunities for scientists to exchange freely information, personnel, and investigation results from research conducted in the Antarctic Treaty area. For the foreseeable future, it seems that bioprospecting in Antarctica mainly will be confined to the collection and discovery of new biological resources. Such activities should fall under the ambit of Article III since they address cooperation among scientific programs and scientific

personnel and the exchange of scientific observations and research results. Important also is that reporting requirements will likely furnish information about many of these activities, but such reports are not likely to include information about the commercial application of these resources. This consequence brings up two obvious concerns: First, can the desire to ensure commercial confidentiality and patent protection be reconciled with the legal requirements of scientific exchange and cooperation in the treaty's Article III? Second, can intellectual property rights be preserved as a useful means for promoting and encouraging the exchange of scientific information? During these early years of bioprospecting in Antarctica, such queries remain unanswered by scientists, commercial investors, and statesmen involved in the region.

Certain unresolved bioprospecting issues could pose serious challenges within the ATCPs, particularly between claimant and nonclaimant states. For example, there is the lack of a consensus definition of biological prospecting as a research activity. Another legal concern relates to who has the authority to determine access to genetic resources in Antarctica. Consequently, although Article IV provides that "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," what degree of legal authority, if any, do claimant states possess to regulate access to Antarctic genetic resources in their claimed sectors? No less important, would this "authority" give claimant states the right of refusal to a prospective bioprospector? Moreover, how and with whom should monetary and other benefits acquired from genetic resource research be shared? Who retains how much of the profits, if any, derived from bioprospecting research? Are all benefits to be retained solely by the company who invests most heavily in the research? Should claimant states figure into any exclusive scheme for apportioning benefits derived from genetic resources in their sector claim? Should the ATCPs receive benefits as a special group? Or should there be a common fund so that peoples worldwide might gain from Antarctica's resources? Finally, with respect to the freedom of scientific research in the Antarctic Treaty area, should a distinction be made between basic scientific research, applied scientific research, and commercial use within the context of benefit sharing? These are important questions affecting bioprospecting activities that could trigger disruptive political reactions among the ATCPs. For the foreseeable future, however, most Antarctic Treaty parties seem content to allow bioprospecting activities to go forward, so long

as conflict of interests can be avoided among research organizations, claimant governments, and nonclaimant governments.

In the search for answers to these critical questions, it would seem prudent and practical that lessons for bioprospecting might be learned from the experience during the 1980s of negotiating the prospecting phase for the Antarctic minerals regime, as well as by consulting the text of its nonoperational instrument, the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA), especially its Chapter III, which constitutes the prospecting section in that instrument.

A third potentially serious challenge to the integrity of the Antarctic Treaty lies in the political tensions arising between Japan and Australia, both Antarctic Treaty Consultative Parties, over the former's practice of lethal whaling in the Southern Ocean. The international body created to watch over national whaling operations is the International Whaling Commission (IWC), which in 1986 adopted a moratorium on commercial whaling that still remains in effect. In 1994 the IWC created the Southern Ocean Whale Sanctuary, which prohibits all commercial whaling within its borders, consisting of nearly all of the Antarctic Southern Ocean.¹⁷ Even so, Japan in 2005 announced its intention to undertake Whale Research Program under Special Permit in the Antarctic (JARPA II), a large-scale Antarctic program, which began the next season. It is widely reported that much of the whale meat generated by JARPA II ends up for sale in fish markets for human consumption.

The conflict between Japan's "scientific whaling" program and the Australian government became joined in 1980. That year Australia's Parliament repealed the Whaling Act 1960 and replaced it with the Whale Protection Act of 1980. Legal protection for whales under Australian law was again reinforced in 1999 as Parliament enacted new legislation, the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The act establishes an Australian Whale Sanctuary (AWS) to help assure the conservation of whales and other cetaceans and acknowledges the "formal recognition of the high level of protection and management afforded to cetaceans" by Australia's government.

Australia's steadfast antiwhaling position over the past 20 years concentrated on Japan and boiled over into Australia's Federal Court in 2004. The case was brought by Humane Society International (HSI), a public interest organization, against Kyodo Senpaku Kaisha Ltd. (Kyodo), a Japanese company engaged in killing whales in the Southern Ocean, specifically in the AWS, within the

claimed exclusive economic zone (EEZ) off the Australian Antarctic Territory (AAT).

The key questions raised by HSI's suit are, first, whether Japan had violated the EPBC Act and, second, whether Australia had the capacity to impose legal authority over the Japanese whaling fleet. The court reasoned that within the context of the 1982 UNCLOS and the provisions of the EPBC Act, Australia's EEZ and attendant whale sanctuary did extend into Antarctic circumpolar waters. Therefore, the court concluded that because the Japanese killed whales within the AAT, they violated the Australian EPBC Act. Subsequently, the court issued an injunction to Kyodo, effective 15 January 2008, to refrain from the further killing, injuring, taking, or interfering with any Antarctic minke, fin, or humpback whales in the AWS bordering the AAT. Australia thus became the first state to judicially find that Japan's whaling in the Southern Ocean Sanctuary was unlawful under national or international law. Significant to note, however, is that Japan publicly indicated in 2008 that it would ignore the Australian Federal Court's ruling. The justification for this was not unreasonable. Japan, along with 187 other states, does not recognize Australia's sovereignty on the continent nor its legal authority to declare jurisdictional zones (i.e., an Australian EEZ or a whale sanctuary) offshore Antarctica. Nearly all states, including Japan, interpret this to mean that all circumpolar Antarctic seas should be considered high seas, simply because no recognized sovereign coastal states exist within the Antarctic Treaty area.

The facts described above underscore the situation that Australia and Japan, two original parties to the Antarctic Treaty, remain at serious loggerheads over the Japanese government's continued support for whaling in the Southern Ocean, most particularly in waters offshore the AAT. Their treaty relationship is no doubt further strained by the cosmetic character of Japan's legal rationale for whaling, i.e., through special permits issued for "scientific research."

This whaling dispute escalated to a new legal level on 1 June 2010, when Australia instituted proceedings before the International Court of Justice against the Japanese government, alleging that "Japan's continued pursuit of a large scale programme of whaling under the Second Phase of its Japanese Whale Research Programme under Special Permit in the Antarctic ('JARPA II') [is] in breach of obligations assumed by Japan under the International Convention for the Regulation of Whaling ('ICRW'), as well as its other international obligations for the preservation of marine mammals and marine environment."¹⁸ Japan has agreed to go before the court to respond to these allegations and could eventually win on grounds that whaling

for "scientific research" is permitted by Article VIII of the ICRW. Nonetheless, it appears certain that Australia is aiming to have Japan's whaling activity judged to be unlawful or at least shamed internationally in the court of world public opinion.

The issue still remains as to whether Japan's whaling policy threatens the very purpose and intent of other ATS instruments. For example, what environmental risks to the marine ecosystem in the Southern Ocean are posed by the activities of Japanese whalers? Can whaling as an activity be viewed as undermining the environmental principles set out in the Antarctic Treaty's Environmental Protocol? That is, does JARPA II as a national Japanese activity undercut the "protection of the Antarctic environment and dependent and [its] associated ecosystems and the intrinsic value of Antarctica, including its wilderness and aesthetic and dependent and associated ecosystems"? Specifically in this regard, do Japanese whaling activities produce "detrimental changes in the distribution, abundance or productivity of species of populations of species of fauna and flora" or cause "further jeopardy to endangered or threatened species or populations of such species" or lead to "degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance" in the Antarctic marine ecosystem, as provided for in Article 3 of the Environmental Protocol? Should the aggressive confrontations between Japanese whaling vessels and environmental activists in Antarctic waters be viewed as a breach of the fiat that the Antarctic area must be used exclusively for peaceful purposes and not become the scene or object of international discord? Notwithstanding the mandate in Article VI of CCAMLR, might the Commission on the Conservation of Antarctic Marine Living Resources be empowered to take a bolder approach toward assessing the environmental impacts of Japan's whaling activities on species within the Antarctic Treaty area? Although these queries remain more hypothetical than realistic suggestions, they should not be dismissed outright.

A final challenge unrelated to political differences amongst the ATCPs merits mention. This is the impact of global forces, especially climate change, upon the Antarctic Treaty System. Scientists generally agree that global temperatures and levels of carbon dioxide in the atmosphere are rising. Of all the world's regions, the Antarctic Peninsula is particularly sensitive to small rises in the annual average temperature, which has increased by nearly 3°C since the Antarctic Treaty was negotiated. This is about 10 times faster than the average for the rest of the world, which makes the peninsula area worthy of serious scientific scrutiny. The rapid disintegration of the Larson

Ice Shelf in 2002, the collapse of the Wilkins Ice Shelf in 2008, and the calving since 1995 of giant icebergs the size of Delaware, Rhode Island, and Connecticut all graphically demonstrated the impacts that warmer waters are having around Antarctica's perimeter ice shelves. In addition, most glaciers on the Antarctic Peninsula are in pronounced retreat because of climate change, and 40% of the sea ice off the West Antarctic Peninsula has disappeared in the last 25 years. In the peninsula area, these climate changes have disrupted local penguin colonies and even compelled some of them to migrate south. The remaining 96% of the continent, however, shows no notable signs of either temperatures rise or loss of ice, a circumstance largely attributable to the cooling effects of the ozone hole over East Antarctica.

How best might the ATCPs deal with global climate disruption in the Antarctic? The answer lies in mobilizing more extensive scientific research efforts through the Scientific Committee on Antarctic Research to better understand the nature of the climate change problem and its impacts on the continent, circumpolar waters, and the indigenous wildlife, especially in the peninsula region. Ways and means must be devised to achieve closer coordination and collaboration in the ATCPs' efforts to tackle the serious effects of climate change on marine resources in the Southern Ocean, including Antarctic krill, the critical prey species in the Antarctic marine ecosystem. Global climate disruption has intensified the urgency of these concerns as rising temperatures continue to melt sea ice, thus destroying key habitat and nursery areas for Antarctic krill. Less sea ice means fewer Antarctic krill, and fewer krill means less food for penguins, seals, whales, finfish, and squid in the region.

The immediate impact of human activity on natural climate cycles, from ice sheet dynamics to wind and ocean currents, remains unclear. A practical strategy would be for leading ATCP science governments, the United States, Russia, Australia, the United Kingdom, Japan, and Germany, to place highest scientific priority on research aimed at studying climate disruption in the Antarctic. By so doing, greater efforts might be brought to bear on understanding these impacts, which might then lead to new insights and strategies that the ATCPs can apply in dealing with the causes and managing the effects of climate change in the circumpolar south. Although there is no silver bullet for solving global climate disruption in the Antarctic, the best scientific minds in the ATCPs could mobilize considerable energy and revenues toward seeking viable, long-term solutions.

Over the past five decades, the Antarctic Treaty has proved itself to be among the most successful multilateral

agreements negotiated in the twentieth century. It demilitarizes, denuclearizes, and guarantees freedom of scientific research, exchange of information, and programmatic cooperation between its member states over one-tenth of the Earth's surface. But we now live in an era of accelerating technological development, rapidly unfolding globalization, and escalating natural resource demands. New pressures of economic need and political circumspection could generate negative impacts upon the cooperative character of the Antarctic Treaty regime. These include the possibility that claimant states might opt to implement national continental shelf claims offshore Antarctica or that companies or governments might undertake widespread unregulated bioprospecting activities in the treaty area or that tensions might become more exacerbated between Japan and Australia and antagonistic environmental activists over Japanese whaling in Antarctic waters. If any of these scenarios should occur, real risks and potentially high costs might be imposed upon the security of the Antarctic Treaty. Given the potentially grave consequences that these challenges could portend, they should be taken very seriously by all the Treaty Parties, but especially so by the ATCPs who have the most to lose by the treaty's unraveling.

NOTES

1. "The Antarctic Treaty," done 1 December 1959, entered into force 23 June 1961, 12 *United States Treaties and Other International Agreements* (UST) 794, *Treaties and Other International Acts Series* (TIAS) No. 4780, 402 *United Nations Treaty Series* (UNTS) 71.

2. The seven claimants are Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom. These seven plus Belgium, Japan, South Africa, the Soviet Union, and the United States were the original treaty members. By 2010, 47 states had become Treaty Parties. Of those, the original 12 and 16 others attained the status of Antarctic Treaty Consultative Parties (ATCPs), which are the participant decision-making governments that negotiate and adopt policies under the treaty. The acceding ATCPs are Brazil, Bulgaria, China, Ecuador, Finland, Germany, India, Italy, Republic of Korea, the Netherlands, Peru, Poland, Spain, Sweden, Ukraine, and Uruguay. The 19 Non-Consultative Parties are Austria, Belarus, Canada, Colombia, Cuba, Czech Republic, Democratic People's Republic of Korea, Denmark, Estonia, Greece, Guatemala, Hungary, Monaco, Papua New Guinea, Romania, Slovak Republic, Switzerland, Turkey, and Venezuela.

3. "Recommendation III-VIII," approved June 2, 1964, entered into force November 1, 1982, 17 UST 996, TIAS No. 6058 (1965), as modified in 24 UST 992, TIAS No. 7692 (1973). The Agreed Measures were superseded by Annex II to the 1991 Protocol on Environmental Protection to the Antarctic Treaty when the protocol entered into force in 1998.

4. Done in London 1 June 1972, entered into force 11 March 1978, 29 UST 441, TIAS No. 8826.

5. Done in Canberra on 20 May 1980, entered into force 7 April 1982, 1329 UNTS 47.

6. "Protocol on Environmental Protection to the Antarctic Treaty," Doc. XI ATSCM/2, 21 June 1991, adopted 4 October 1991, entered into force 14 January 1998.

7. A highly detailed and lengthy instrument, the Convention on the Regulation of Antarctic Mineral Resource Activities, was negotiated by the ATCPs between 1982 and 1988. See Done 2 June 1988 in Wellington, New Zealand, opened for signature 25 November 1988, Doc. AMR/SCM/88/78 of 2 June 1988, reprinted in 28 *International Legal Materials* (ILM) 859 (1988). However, owing to critical public protests from environmental activists in France and Australia over the possibility of minerals development in Antarctica, the agreement was indefinitely shelved and never entered into force.

8. United Nations Convention on the Law of the Sea, Art. 76, para. 1, Dec. 10, 1982, 1833 U.N.T.S. 397, http://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf [Hereinafter 1982 UNCLOS] (accessed 18 November 2010).

9. Commission on the Limits of the Continental Shelf (CLCS) Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Submission by Australia, http://www.un.org/Depts/los/clcs_new/submissions_files/submission_au.htm (accessed 18 November 2010).

10. Commission on the Limits of the Continental Shelf (CLCS).

11. Outer Limit of the Continental Shelf, Argentine Submission, Executive Summary, pp.11–16, 22, http://www.un.org/Depts/los/clcs_new/submissions_files/arg25_09/arg2009e_summary_eng.pdf (accessed 18 November 2010).

12. Continental Shelf Submission of Norway with respect to Bouvetoya and Dronning Maud Land (Executive Summary), http://www.un.org/Depts/los/clcs_new/submissions_files/nor30_09/nor2009_executive_summary.pdf (accessed 18 November 2010).

13. Continental Shelf Preliminary Information of Chile, http://www.un.org/Depts/los/clcs_new/submissions_files/preliminary/chl2009_preliminaryinformation.pdf (accessed 18 November 2010).

14. United Kingdom, Note No. 168/08 (9 May 2008), http://www.un.org/Depts/los/clcs_new/submissions_files/gbr08/gbr_nv_9may2008.pdf (accessed 18 November 2010); Submission by United Kingdom of Great Britain and Northern Ireland, 11 May 2009, http://www.un.org/Depts/los/clcs_new/submissions_files/submission_gbr_45_2009.htm (accessed 18 November 2010).

15. Permanent Mission of France to the United Nations, Note No. HR/cl No. 69, February 2009, http://www.un.org/Depts/los/clcs_new/submissions_files/fra09/fra_note_feb2009e.pdf (accessed 18 November 2010).

16. Bureau of Oceans and International Environmental and Scientific Affairs, "Antarctic Treaty Consultative Meeting XXXII, Washington, Ministerial Declaration on the Fiftieth Anniversary of the Antarctic Treaty," 6 April 2009, <http://www.state.gov/g/oes/rls/other/2009/121339.htm> (accessed 23 April 2010).

17. The IWC is considering a proposal that would reauthorize commercial whale hunting in exchange for reducing the number of whales killed each year. Not surprisingly, this has touched off a serious controversy between IWC members and environmentalists. See Juliet Eilperin, "Panel Proposes Whaling Ban Compromise," *Washington Post*, A2, 24 April 2010.

18. International Court of Justice, "Australia Institutes Proceedings against Japan for Alleged Breach of International Obligations Concerning Whaling," Press Release No. 2010/16, 1 June 2010.