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## Death of a Treaty: The Decline and Fall of the Antarctic Minerals Convention

Deborah C. Waller

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# Death of a Treaty: The Decline and Fall of the Antarctic Minerals Convention

## ABSTRACT

*On June 2, 1988, in Wellington, New Zealand, thirty-three states signed the Convention on the Regulation of Antarctic Mineral Resources. This agreement, the product of six years of negotiation, fills a significant gap in the Antarctic Treaty System: it provides rules governing the prospecting, exploration, and development of minerals in Antarctica. Recently, however, two Antarctic Treaty Consultative Parties—France and Australia—have refused to ratify the Minerals Convention, instead advocating a permanent ban on mineral activities in Antarctica. Their opposition thwarts plans for the ratification of the Minerals Convention. This Note provides an overview of the present Antarctic Treaty System, sets forth the provisions of the Minerals Convention in detail, and discusses the Convention's strengths and weaknesses. Finally, this Note outlines the events that led to the collapse of the Convention.*

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## I. INTRODUCTION

In recent decades, Antarctica has become an international center for scientific research.<sup>1</sup> Now Antarctica is the center of international attention for another reason: its potential for mineral resource development. Various geological explorations and studies indicate that Antarctica may contain vast deposits of oil, natural gas, and other mineral resources that could be valuable to the international community.<sup>2</sup> One study suggests that the western Antarctic continental shelf may contain up to forty-five billion barrels of oil and 115 trillion cubic feet of natural gas.<sup>3</sup> Based on the discovery of various minerals such as methane, ethane, and ethylene in Antarctica, some scientists report that deposits of hard minerals such as copper, iron, nickel, platinum, and coal may also exist in Antarctica.<sup>4</sup>

1. Pinto, *The International Community and Antarctica*, 33 U. MIAMI L. REV. 475, 479 (1978); see *infra* notes 22-25 and accompanying text.

2. See generally ANTARCTIC MINERAL RESOURCES: DOCUMENT PRESENTED BY THE U.S. DELEGATION TO THE NINTH MEETING OF THE CONSULTATIVE PARTIES TO THE ANTARCTIC TREATY (1976) [hereinafter ANTARCTIC MINERAL RESOURCES], reprinted in *U.S. Activities in Antarctica: Hearing Before the Senate Comm. on Energy and Natural Resources*, 96th Cong., 1st Sess. 20-24 (1979) [hereinafter *Hearing: U.S. Activities in Antarctica*]; EXCERPTS FROM THE REPORT OF THE GROUP OF EXPERTS ON MINERAL EXPLORATION AND EXPLOITATION TO THE NINTH MEETING OF THE CONSULTATIVE PARTIES TO THE ANTARCTIC TREATY (1976) [hereinafter GROUP OF EXPERTS REPORT], reprinted in *Hearing: U.S. Activities in Antarctica*, *supra*, at 24-34; ANTARCTIC RESOURCES: REPORT FROM THE MEETING OF EXPERTS AT THE FRIDTJOF NANSEN FOUNDATION AT POLHOGDA (1973) [hereinafter NANSEN REPORT], reprinted in *U.S. Antarctic Policy: Hearing Before the Subcomm. on Oceans and International Environment of the Senate Comm. on Foreign Relations*, 94th Cong., 1st Sess. 68-85 (1975) [hereinafter *Hearing: U.S. Antarctic Policy*]; Zumberge, *Mineral Resources and Geopolitics in Antarctica*, 67 AM. SCI. 68 (1986).

3. Shapley, *Antarctica: World Hunger for Oil Spurs Security Council Review*, SCIENCE, May 17, 1974, at 776, 777, reprinted in *Hearing: U.S. Antarctic Policy*, *supra* note 2, at 31, 32; see F. AUBURN, ANTARCTIC LAW AND POLITICS 251-54 (1982); Kindt, *Ice-Covered Areas and the Law of the Sea: Issues Involving Resource Exploitation and the Antarctic Environment*, 14 BROOKLYN J. INT'L L. 27, 30 (1988).

4. NANSEN REPORT, *supra* note 2, at 69-71; Zumberge, *Potential Mineral Resource Availability and Possible Environmental Problems in Antarctica*, in THE NEW NATIONALISM AND THE USE OF COMMON SPACES 123-30 (J. Charney ed. 1982) [hereinafter NEW NATIONALISM]. Scientists believe that Antarctica was once part of a larger land mass known as "Godwanaland." This land mass separated millions of years ago to form India, Africa, Australia, South America, and Antarctica. Because other parts of the Godwanaland land mass have valuable mineral deposits, scientists posit that Antarctica too may be rich in mineral resources. See Pontecorvo, *The Economics of the Resources of Antarctica*, in NEW NATIONALISM, *supra*, at 155, 156.

Some experts, however, dispute hopes of finding substantial, commercially exploitable, mineral resources in Antarctica.<sup>5</sup> These experts stress that even if substantial deposits of mineral resources do exist, the Antarctic climate and terrain make any mineral exploration and exploitation efforts extremely difficult and costly, if not impossible.<sup>6</sup>

Those interested in preserving the Antarctic Treaty System<sup>7</sup> and the Antarctic environment have a special interest in the future of mineral activities in Antarctica. Studies indicate that mineral exploration or exploitation activities could disrupt the fragile Antarctic ecosystem<sup>8</sup> and threaten the stability of the present political and legal regime of Antarctica.<sup>9</sup> If left unregulated, mineral exploration and exploitation in Antarctica could jeopardize the entire Antarctic Treaty regime.

Recognizing the potential problems and conflicts that could arise if mineral exploration and exploitation were to occur unchecked, thirty-three countries, including the United States, drafted the Convention on the Regulation of Antarctic Mineral Resources on June 2, 1988, in Wellington, New Zealand.<sup>10</sup> The product of six years of negotiation, the

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5. Rich, *A Minerals Regime for Antarctica*, 31 I.C.L.Q. 709, 710 (1982).

6. See generally A. PARSONS, *ANTARCTICA: THE NEXT DECADE 76-97* (1987); Bonner, *The Future of Antarctic Resources*, 152 GEOGRAPHICAL J. 248, 254-55 (1986); Pontecorvo, *supra* note 4, at 155; Zumberge, *supra* note 4, at 130-34.

7. The Antarctic Treaty System is a conventional regime consisting of the following international agreements: Antarctic Treaty, *done* Dec. 1, 1959, 12 U.S.T. 794, T.I.A.S. No. 4780, 402 U.N.T.S. 71; Agreed Measures for the Conservation of Antarctic Flora and Fauna, *done* June 2-13, 1964, 17 U.S.T. 996, T.I.A.S. No. 6058 (1966) [hereinafter Agreed Measures], *modified in* 24 U.S.T. 1802, T.I.A.S. No. 7692 (1973); Convention for the Conservation of Antarctic Seals, *done* June 1, 1972, 29 U.S.T. 441, T.I.A.S. No. 8826 [hereinafter Seals Convention]; Convention on the Conservation of Antarctic Marine Living Resources, *done* May 20, 1980, 33 U.S.T. 3476, T.I.A.S. No. 10240 [hereinafter Marine Resources Convention]; Convention on the Regulation of Antarctic Mineral Resource Activities, *opened for signature* Nov. 25, 1988, *reprinted in* 27 I.L.M. 859 (1988) [hereinafter Minerals Convention].

8. See generally NANSEN REPORT, *supra* note 2, at 72-73; Joyner, *Protection of the Antarctic Environment: Rethinking the Problems and Prospects*, 19 CORNELL INT'L L.J. 259 (1986); Mitchell, *Antarctica: A Special Case?*, NEW SCI., Jan. 13, 1977, at 64.

9. See Bilder, *The Present Legal and Political Situation in Antarctica*, in NEW NATIONALISM, *supra* note 4, at 203; Pallone, *Resource Exploitation: The Threat to the Legal Regime of Antarctica*, 8 MANITOBA L.J. 597 (1978).

10. The Consultative Parties participating in the negotiations were Argentina, Australia, Belgium, Brazil, Chile, China, France, German Democratic Republic, Federal Republic of Germany, India, Italy, Japan, New Zealand, Norway, Poland, South Africa, the Union of Soviet Socialist Republics, the United Kingdom, the United States, and Uruguay. The contracting parties participating in the negotiations were Bulgaria, Canada, Czechoslovakia, Denmark, Ecuador, Finland, Greece, Republic of Korea, Netherlands, Papua New Guinea, Peru, Romania, and Sweden. Final Report of the Fourth

Convention provides a legal framework for the regulation of the prospecting, exploration, and development of mineral resources in Antarctica.<sup>11</sup> Recently, however, several states whose signatures are necessary to the implementation of the Minerals Convention have withdrawn their support, effectively foreclosing the implementation of the Convention.

This Note will present the events leading to the apparent death of the Minerals Convention and attempt to explain why the result of so many years of effort could ostensibly perish so quickly. But first, this Note will set out the legal context of the Minerals Convention by briefly examining the constituent agreements of the Antarctic Treaty System. Next, this Note will provide a detailed examination of the Minerals Convention itself. Finally, this Note will examine the decline and eventual fall of the Minerals Convention.

## II. ANTARCTICA, ITS RESOURCES, AND THE NEED FOR PROTECTION

Antarctica has many exceptional geophysical characteristics. Its polar position makes it the highest and coldest continent on earth.<sup>12</sup> The continent consists of approximately 5.5 million square miles of land.<sup>13</sup> In winter, massive ice shelves and thick annual sea ice surround Antarctica and almost double the continent's size.<sup>14</sup> A year-round, thick layer of ice covers almost ninety-eight percent of Antarctica, leaving virtually no ex-

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Special Antarctic Treaty Consultative Meeting on Antarctic Mineral Resources, June 2, 1988, at 2 (Doc. No. AMR/SCM/88/79) (photo. reprint) [hereinafter Final Report].

On November 25, 1988, the Antarctic Minerals Convention was opened for signature by the twenty nations that participated in the Fourth Special Antarctic Treaty Consultative Meeting. Minerals Convention, *supra* note 7, art. 61. Prior to entry into force, the United States, the Soviet Union, the seven claimant nations—Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom—and seven additional nonclaimant nations must ratify the Convention. Additionally, these sixteen nations must include eleven developed nations and five developing nations. After one year, other Antarctic Treaty members may sign the Convention and thereby agree to comply with the provisions thereof. See INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT—NORTH AMERICA, THE ANTARCTIC MINERALS CONVENTION 2 (1988) [hereinafter INTERNATIONAL INSTITUTE REPORT].

11. See Joyner, *The Evolving Antarctic Minerals Regime*, 19 OCEAN DEV. & INT'L L.J. 73 (1988). On the need for such a legal framework, see Joyner & Theis, *The United States and Antarctica: Rethinking the Interplay of Law and Interests*, 20 CORNELL INT'L L.J. 65 (1987).

12. Pontecorvo, *supra* note 4, at 155.

13. Kindt, *supra* note 3, at 28.

14. *Id.* at 28. The band of ice ranges from three hundred to one thousand miles in width. Joyner & Theis, *supra* note 11, at 68-69.

posed land on the continent.<sup>15</sup> Surrounding the continent is the Southern Ocean, a huge body of water that accounts for almost ten percent of the world's oceans.<sup>16</sup>

Extremely low temperatures, high winds, and small amounts of precipitation characterize the climate of Antarctica. In winter, the average temperature on East Antarctica's polar plateau is only  $-60^{\circ}$  C.<sup>17</sup> The world's most violent windstorms originate over the Southern Ocean; these winds sometimes gust up to two hundred miles per hour.<sup>18</sup> Antarctica receives less than two inches of precipitation per year, most of which is in the form of snow.<sup>19</sup>

There is no indigenous human life in Antarctica; the scientists, explorers, and support staff in Antarctica reside there on a temporary basis.<sup>20</sup> Antarctica is one of the few areas in the world that is virtually undisturbed by humanity.<sup>21</sup>

Because Antarctica is relatively unspoiled and isolated from other continents, it provides a comparison base for global pollution studies.<sup>22</sup> Antarctica and the Southern Ocean are the center for various kinds of biological, meteorological, and climatic research.<sup>23</sup> Since 1959, scientists from many countries, including the United States and the Soviet Union, have maintained year-round, research stations in Antarctica.<sup>24</sup> Antarctica and the Southern Ocean therefore provide the world with a "unique scientific laboratory."<sup>25</sup>

Preserving Antarctica and the Southern Ocean is very important to the protection of the area's living resources. The continent itself has few living resources. Insects, worms, arthropods, and parasites are the major forms of Antarctic life.<sup>26</sup> Plants such as mosses, lichen, and algae also grow on the continent.<sup>27</sup> The Southern Ocean, however, contains an

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15. Joyner & Theis, *supra* note 11, at 68.

16. Zumberge, *supra* note 2, at 68.

17. Zumberge, *supra* note 4, at 119.

18. Joyner & Theis, *supra* note 11, at 69.

19. *Id.*; Zumberge, *supra* note 4, at 119.

20. A. PARSONS, *supra* note 6, at 77.

21. Charney notes that "[t]he Antarctic has value to scientists for two primary reasons: it is a unique environment, and it has been largely untouched by man." Charney, *Future Strategies for an Antarctic Mineral Resource Regime—Can the Environment Be Protected?*, in *NEW NATIONALISM*, *supra* note 4, at 206, 208 (footnotes omitted).

22. A. PARSONS, *supra* note 6, at 47.

23. *Id.* at 47-63.

24. Joyner & Theis, *supra* note 11, at 77-78.

25. Mitchell, *supra* note 8, at 65.

26. Zumberge, *supra* note 4, at 120-21.

27. *Id.*

abundance of resources, some of which have commercial food value.<sup>28</sup> In the Southern Ocean phytoplankton, zooplankton, krill, and various kinds of marine birds and mammals, such as penguins, seals, and whales flourish.<sup>29</sup>

Antarctica's most important and abundant living resource is krill.<sup>30</sup> Researchers estimate that the Southern Ocean has between 153 and 1350 million metric tons of this small shrimp-like crustacean.<sup>31</sup> Krill serves as a food source for whales, seals, penguins, and other marine life in the Southern Ocean.<sup>32</sup> Krill is also an exploitable resource.<sup>33</sup> Studies indicate that an annual harvest of seventy millions tons of krill may be sufficient to supply one quarter of the world's population with its daily protein requirements.<sup>34</sup> Like Antarctica's other living resources, krill is very sensitive to any changes in the environment, particularly pollution and changes in water temperature.<sup>35</sup> Protecting the environment is essential to the continued viability of krill and Antarctica's other living resources that rely directly or indirectly upon krill as a food source.

Large scale exploitation of oil and mineral resources poses serious potential threats to the Antarctic environment and ecosystem.<sup>36</sup> One major concern is the increased likelihood of oil spills.<sup>37</sup> Oil spills could contaminate the Southern Ocean and possibly decrease the population of fish, krill, and other marine life.<sup>38</sup> Another concern is that dust from mining operations could cause the continent's snow fields to melt.<sup>39</sup> Dust and pollution could also further dissipate the already depleted ozone layer over Antarctica.<sup>40</sup> Scientists believe that continued depletion could lead to

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28. Joyner & Theis, *supra* note 11, at 70.

29. Kindt, *supra* note 3, at 32.

30. *Id.*; Bonner, *supra* note 6, at 253-54.

31. Kindt, *supra* note 3, at 33.

32. Zumberge, *supra* note 4, at 121-23.

33. The Soviet Union, Poland, West Germany, Japan, Taiwan, Korea, Argentina, and Chile harvest krill. *See id.* at 121.

34. Kindt, *supra* note 3, at 33. Little information exists regarding the demand for krill. Potentially, however, "there is a substantial latent demand for food, especially protein from the ocean." Pontecorvo, *supra* note 4, at 162.

35. Tetzeli, *Allocation of Mineral Resources in Antarctica: Problems and a Possible Solution*, 10 HASTINGS INT'L & COMP. L. REV. 525, 529 (1987).

36. Joyner, *supra* note 8, at 260-64.

37. *See* Mitchell, *supra* note 8, at 64; GROUP OF EXPERTS REPORT, *supra* note 2, at 32-33.

38. Mitchell, *supra* note 8, at 64.

39. *See* Joyner, *supra* note 8, at 261.

40. A 1986 report by the United States National Aeronautics and Space Administration (NASA) indicated that since 1957 over forty percent of Antarctica's ozone layer has

"irreversible changes in the earth's atmosphere, which would in time affect all life on earth."<sup>41</sup> Additional threats to the Antarctic environment include those posed by increased human activity, additional waste, and the presence of heavy machinery.<sup>42</sup> The potential harm to the environment from exploitation is great.

Whether commercial oil and mineral resource exploitation will become feasible is uncertain.<sup>43</sup> A number of oil companies indicate an interest in searching for Antarctic oil.<sup>44</sup> Currently, however, the obstacles facing those wishing to explore for Antarctic minerals are overwhelming. As summarized in a 1979 report submitted to the United States Senate Committee on Energy and Natural Resources, "the combination of water depth, ice conditions, severe weather, transportation costs, and short annual working time imply production costs of such magnitude" that any attempt to exploit mineral resources would be prohibitively expensive.<sup>45</sup> Furthermore, there remains doubt whether exploitable mineral resources exist in Antarctica.<sup>46</sup>

Many Antarctic experts argue that the prior accomplishments and success of the Antarctic legal regime demonstrate the regime's ability to withstand any challenge posed by the minerals issue.<sup>47</sup> Yet, if mineral resource exploration and exploitation becomes feasible and substantial deposits of valuable minerals and oil are discovered, the Antarctic Treaty regime may prove inadequate to manage threats to the environment and disputes that arise between nations seeking to exploit Antarctic resources.<sup>48</sup> Now is the time, before any mineral exploitation occurs, to develop environmental safeguards that will preserve the Antarctic environment and its resources.

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dissipated. Kindt, *supra* note 3, at 35-36 (citing NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, PRESENT STATE OF KNOWLEDGE OF THE UPPER ATMOSPHERE 14-15, 105-07 (1986)).

41. *Id.* at 36.

42. See generally Joyner, *supra* note 8, at 260-64.

43. See Tetzeli, *supra* note 35, at 529.

44. The oil companies include British Petroleum, Gulf Oil Co., Japan National Oil Corp., and the French Petroleum Institute. Kindt, *supra* note 3, at 30 & n.21.

45. ANTARCTIC MINERAL RESOURCES, *supra* note 2, at 20.

46. See Dugger, *Exploiting Antarctic Mineral Resources—Technology, Economics, and the Environment*, 33 U. MIAMI L. REV. 315, 331, 339 (1978); Pallone, *supra* note 9, at 597. But see *Antarctica: 10th Meeting of Treaty Consultative Parties*, DEP'T ST. BULL., Nov. 1979, at 21-22 [hereinafter *10th Meeting*].

47. See Colson, *The Antarctic Treaty System: The Mineral Issue*, 12 LAW & POL'Y INT'L BUS. 841, 844 (1980); *10th Meeting*, *supra* note 46, at 22.

48. Bilder, *supra* note 9, at 173-74.

### III. THE ANTARCTIC TREATY REGIME

#### A. *The Antarctic Treaty*

The Antarctic Treaty is the cornerstone of the Antarctic Treaty System.<sup>49</sup> Twelve states—Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the United Kingdom, the United States, and the Soviet Union—signed the treaty on December 1, 1959, in Washington, D.C.<sup>50</sup> Of the twelve signatory states, seven—Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom—claim territory in Antarctica.<sup>51</sup> The claims of three of these claimant states—Chile, Argentina, and the United Kingdom—overlap.<sup>52</sup> The remaining five signatory states neither have territorial claims in Antarctica nor do they recognize any other territorial claims.<sup>53</sup> Bound by their common interests in the preservation of Antarctica and the furtherance of scientific research on the continent, these twelve signatory states successfully negotiated an agreement that establishes a framework for the preservation of Antarctica and the promotion of scientific research without prejudicing the positions or territorial claims of any of the states involved.<sup>54</sup>

The Antarctic Treaty contains fourteen articles. Its simple provisions establish a framework that has been fairly successful in governing Antarctica and preserving the Antarctic environment.<sup>55</sup> The primary goals of the Antarctic Treaty are to ensure the use of Antarctica for “peaceful purposes”<sup>56</sup> and to promote freedom of scientific investigation and co-

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49. On the Antarctic Treaty, see generally F. AUBURN, *supra* note 3, at 84-146; F. ORREGO VICUNA, *ANTARCTIC MINERAL EXPLOITATION: THE EMERGING LEGAL FRAMEWORK* 12-14 (1988); Hanessian, *The Antarctic Treaty of 1959*, 9 I.C.L.Q. 436 (1960).

50. Antarctic Treaty, *supra* note 7. All twelve states were participants in the International Geophysical Year of 1957-58, an attempt to co-ordinate geophysical activities on a world scale and to conduct research on meteorology, the upper atmosphere, cosmic rays, and other scientific phenomena. See Joyner & Theis, *supra* note 11, at 71.

51. About fifteen percent of Antarctica remains unclaimed. Wasserman, *The Antarctic Treaty and Natural Resources*, 12 J. WORLD TRADE 174, 175 (1978).

52. *Id.*

53. *Id.*

54. Antarctic Treaty, *supra* note 7, art. XII, paras. 1, 2. Through ratification, the contracting parties agree to be bound by the Treaty and not to take any action that would violate the objectives or purposes of the Treaty. *Id.* art. X.

55. F. ORREGO VICUNA, *supra* note 49, at 25-26. *But see* Triggs, *The Antarctic Treaty Regime: A Workable Compromise or a “Purgatory of Ambiguity”?*, 17 CASE W. RES. J. INT’L L. 195 (1985).

56. Antarctic Treaty, *supra* note 7, art. I, para. 1. Article I, paragraph 2 permits the

operation.<sup>57</sup> The Treaty prohibits weapons testing, military maneuvers, military bases, nuclear explosions, and nuclear waste disposal in Antarctica.<sup>58</sup> Article III requires parties to exchange freely all plans, observations, personnel, and results of any scientific investigation among themselves.<sup>59</sup> Article IV preserves the positions of the claimant and nonclaimant states in Antarctica and provides that no activities performed by the parties during the effective period of the Treaty shall create a basis for "asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica."<sup>60</sup> Article VI further provides that nothing in the Treaty shall prejudice or affect the rights or exercise of the rights that any state may have under the international law of the high seas in the Treaty area.<sup>61</sup> Article VII allows all Consultative Parties to have access to any area and to conduct inspections of all installations, vessels, and aircraft in Antarctica.<sup>62</sup> Article X obliges the contracting parties to take any steps necessary to ensure that all abide by the principles of the Antarctic Treaty.<sup>63</sup>

use of military personnel or equipment for scientific research or any other peaceful purposes. *Id.* art. I, para. 2.

57. *Id.* arts. I, II.

58. *Id.* arts. I, V.

59. *Id.* art. III. Article III, paragraph 2 of the Treaty also encourages the establishment of working relations with United Nations agencies and other international organizations having a scientific or technical interest in Antarctica. *Id.* art. III, para. 2.

60. *Id.* art. IV, para. 1. The entire text of article IV reads:

1. Nothing contained in the present Treaty shall be interpreted as:

- (a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;
- (b) a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;
- (c) prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's right 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.

*Id.* art. IV.

61. *Id.* art. VI.

62. *Id.* art. VII, para. 1. Article VII, paragraph 1 of the Antarctic Treaty allows each Contracting Party, whose representatives are entitled to participate in meetings under article IX, to designate observers to carry out inspections to ensure that the principles of the Antarctic Treaty are being upheld. *Id.*

63. *Id.* art. X.

Article XI outlines a dispute mechanism which provides that if any dispute arises between two or more of the contracting parties regarding the interpretation or application of the Treaty, the parties "shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice."<sup>64</sup> Article XI further provides that if any such dispute remains unresolved and there is consent of all parties to the dispute, the parties should refer the case to the International Court of Justice for settlement.<sup>65</sup> Finally, article XII sets forth procedures for modification and amendment of the Treaty; it provides that the Treaty can be modified or amended only by unanimous agreement of the parties and that the resulting change is effective only when it is ratified by all parties.<sup>66</sup>

Within the Antarctic Treaty regime, the Consultative Parties have the primary responsibility for the regulation of Antarctic activities.<sup>67</sup> The Consultative Parties are the representatives of the original signatory parties of the Antarctic Treaty and the representatives of other Antarctic Treaty parties that have demonstrated an interest in Antarctica by conducting substantial scientific research in the Antarctic region.<sup>68</sup> The Consultative Parties meet regularly, usually every two years, to exchange information and adopt necessary measures to further the principles and objectives of the Antarctic Treaty.<sup>69</sup> Most of the meetings are conducted behind closed doors.<sup>70</sup> Usually only the recommendations and a brief account of the proceedings reach the public<sup>71</sup> because the group fears that opening the system to public scrutiny might undermine the negotiations between the states.<sup>72</sup> These regular meetings have produced a body of recommendations that cover such diverse subjects as Antarctic wildlife

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64. *Id.* art. XI, para. 1.

65. *Id.* art. XI, para. 2.

66. *Id.* art. XII, para. 2. Article XII, paragraph 2 further provides that thirty years after the effective date of the Treaty, the Consultative Parties must meet upon request to review the operation of the System. *Id.* art. XII, para. 2. The year 1991 marks thirty years since the entry into force of the Antarctic Treaty.

67. See F. AUBURN, *supra* note 3, at 147-54; Auburn, *Consultative Status Under the Antarctic Treaty*, 28 I.C.L.Q. 514 (1979). The Consultative Parties often are referred to as the "Antarctic Club." Triggs, *supra* note 55, at 204.

68. Antarctic Treaty, *supra* note 7, art. IX, para. 2; see also Auburn, *supra* note 67, at 515-22.

69. Antarctic Treaty, *supra* note 7, art. IX, para. 1; see also F. AUBURN, *supra* note 3, at 153-54.

70. See Auburn, *supra* note 67, at 521.

71. *Id.*

72. *Id.*

conservation, scientific research, tourism, and postal services.<sup>73</sup> The Consultative Parties, although criticized by some, have successfully preserved the principles and objectives of the Antarctic Treaty and modified the System to meet the changing needs of both the region and those states involved in overseeing Antarctic activities.<sup>74</sup>

Other non-Consultative Parties having an important role in the Antarctic Treaty system include the contracting parties and the Scientific Committee on Antarctic Research (SCAR). Non-Consultative Parties have no voting power, but they do have obligations under the regime.<sup>75</sup> All contracting parties, non-consultative and consultative alike, freely exchange and make available "information regarding plans for scientific programs in Antarctica" and "scientific observations and results."<sup>76</sup> All parties likewise have an obligation to "exert appropriate efforts . . . to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the present Treaty."<sup>77</sup> Finally, although the non-Consultative Parties have no vote in the decision-making processes, they do have a forum to voice their opinions and concerns before the Consultative Parties.<sup>78</sup>

SCAR is the "scientific arm" of the regime,<sup>79</sup> which some call the "central scientific support organization" for the Consultative Parties.<sup>80</sup> Any party actively engaged in scientific research in Antarctica may belong to SCAR,<sup>81</sup> the purpose of which is to aid in the coordination of Antarctic scientific activity.<sup>82</sup> The Consultative Parties rely on SCAR to perform various tasks, including the development of scientific programs

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73. Colson, *supra* note 48, at 851-52.

74. *Id.*; F. ORREGO VICUNA, *supra* note 49, at 190; *see also infra* notes 247-75 and accompanying text. *But see* Triggs, *supra* note 55.

75. Non-consultative contracting parties are those states that have ratified the Antarctic Treaty, but have not met the requirements for consultative status. *See* F. AUBURN, *supra* note 3, at 170-71.

76. *Id.*; Antarctic Treaty, *supra* note 7, art. III, para. 1(a), (b).

77. *Id.* art. X. Hanessian notes, however, that "[i]t is difficult to interpret just what a signatory State is required to do if it observes a State committing an action contrary to the principles of the Treaty—other than perhaps bringing up the matter for discussion at the United Nations." Hanessian, *supra* note 49, at 478.

78. Antarctic Treaty, *supra* note 7, art. IX, para. 2.

79. *See* F. AUBURN, *supra* note 3, at 171-83; Auburn, *supra* note 67, at 514. The Treaty does not mention SCAR. There is no formal link between SCAR and the Consultative Parties. *Id.* at 179.

80. *See* J. MYHRE, THE ANTARCTIC TREATY SYSTEM: POLITICS, LAW, AND DIPLOMACY 77-83 (1986).

81. F. AUBURN, *supra* note 3, at 173.

82. *Id.* at 172.

for monitoring the environment and the assessment of the environmental impact of mineral exploration and exploitation.<sup>83</sup> The contracting parties and SCAR therefore play a significant role in the regulation of Antarctic activities and the preservation of the principles and objectives of the regime.

The Consultative Parties have supplemented the Antarctic Treaty with other agreements and conventions. The additional components of the Antarctic Treaty regime are:

- (1) Agreed Measures for the Conservation of Antarctic Fauna and Flora (Agreed Measures);<sup>84</sup>
- (2) Convention for the Conservation of Antarctic Seals (Seals Convention);<sup>85</sup>
- (3) Convention on the Conservation of Antarctic Marine Living Resources (Marine Resources Convention);<sup>86</sup> and
- (4) Convention on the Regulation of Antarctic Mineral Resource Activities (Minerals Convention).<sup>87</sup>

These components shall each be examined in turn below.

#### B. *Agreed Measures for the Conservation of Antarctic Fauna and Flora*

In recognition of the "scientific importance of the study of Antarctic fauna and flora, their adaptation to their rigorous environment, and their interrelationship with that environment," the Consultative Parties adopted the Agreed Measures for the Conservation of Antarctic Fauna and Flora.<sup>88</sup> This agreement prohibits the killing, wounding, capturing, or molesting of native mammals or birds without a government permit.<sup>89</sup> It also mandates special protection for certain species<sup>90</sup> and prohibits, except by permit, the introduction into Antarctica of species that are not native to the continent.<sup>91</sup> Under the Agreed Measures, contracting parties can designate specially protected areas and reserve them exclusively

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83. *Id.* at 179-83.

84. Agreed Measures, *supra* note 7.

85. Seals Convention, *supra* note 7.

86. Marine Resources Convention, *supra* note 7.

87. Minerals Convention, *supra* note 7.

88. Agreed Measures, *supra* note 7, preamble. The Agreed Measures apply to the Antarctic Treaty area. *Id.* art. I.

89. *Id.* art. VI, para. 1.

90. *Id.* art. VI, para. 5.

91. *Id.* art. IX.

for scientific research.<sup>92</sup> The individual governments may also issue permits, in their discretion, to allow exceptions to the rules in special circumstances.<sup>93</sup> The enforcement of the Agreed Measures is left to the contracting parties. Under article X of the Agreed Measures, the contracting parties agree to "exert appropriate efforts . . . to the end that no one engages in any activity in the Treaty Area contrary to the principles or purposes of these Agreed Measures."<sup>94</sup> The Consultative Parties may amend these measures at any time.<sup>95</sup> The Agreed Measures contain no provision for the resolution of disputes between contracting parties concerning the application or interpretation of the measures.

### C. *Convention for the Conservation of Antarctic Seals*

The purpose of the Seals Convention is to protect the seals in the waters and on the sea-ice off the coast of Antarctica.<sup>96</sup> The Convention prohibits the taking of three species of Antarctic seals and sets limits on the taking of three other species.<sup>97</sup> It forbids all sealing for six months of the year and restricts sealing to a certain area for the rest of the year.<sup>98</sup> The Convention also prohibits pelagic sealing, except in limited numbers for scientific research.<sup>99</sup> As under the Agreed Measures, the contracting parties may amend the Seals Convention at any time.<sup>100</sup> The agreement contains no provision governing the resolution of disputes arising between the contracting parties as to the interpretation or application of the Seals Convention.

The contracting parties and SCAR play important roles in the administration of the Seals Convention. Each contracting party may adopt additional measures to regulate the "conservation, scientific study and rational and humane use of seal resources."<sup>101</sup> Contracting parties also may issue permits to kill or capture limited numbers of seals provided

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92. *Id.* art. VIII.

93. *Id.* art. VI, para. 1.

94. *Id.* art. X.

95. *Id.* art. XIV.

96. Seals Convention, *supra* note 7, preamble.

97. *Id.* annex, paras. 2-3. Article 3 incorporates the Treaty annex, which contains permissible catch levels, lists of protected species, and provides other information. *Id.* art. 3(1). As set forth in the annex, no one may kill or capture Ross seals, Southern elephant seals, or fur seals of the genus *Arctocephalus*. *Id.* annex, para. 2.

98. *Id.* annex, para. 3. The period between March 1 and August 31, inclusive, is a closed season during which the killing and capturing of seals is prohibited. *Id.*

99. *Id.* annex, para. 7(b).

100. *Id.* art. 8.

101. *Id.* art. 3(1).

such activity conforms to the objectives and principles of the Convention.<sup>102</sup> If commercial sealing begins, the contracting parties have the authority to establish an inspection system to oversee the operation.<sup>103</sup> The Convention invites SCAR to assess the information and data received from the contracting parties to monitor the harvesting of all seals, and report to the Commission when any harvest has a "significantly harmful effect" on the seal population or the ecological system.<sup>104</sup> SCAR also has the authority to oversee the taking of seals and to warn individual governments when the number of seals taken approaches the limit set under the Seals Convention.<sup>105</sup>

#### D. *Convention on the Conservation of Antarctic Marine Living Resources*

The Marine Resources Convention is an agreement regulating commercial fishing and the exploitation of marine living resources in the Southern Ocean.<sup>106</sup> The Convention governs the conservation or "rational use" of all species of living organisms south of the Antarctic Convergence.<sup>107</sup> In an effort to maintain certain population levels among harvested species, to maintain ecological relationships between harvested species and those dependent on such species, and to prevent or minimize irreversible changes in the marine ecosystem, the Convention requires that harvesting and other such activities conform to the terms of the Convention.<sup>108</sup>

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102. *Id.* art. 4(1). The parties may issue permits "to provide indispensable food for men or dogs; . . . to provide for scientific research; or . . . to provide specimens for museums, educational or cultural institutions." *Id.* Each party, pursuant to article 4, must promptly inform the other contracting parties and SCAR of the "purpose and content of all permits issued . . . and subsequently of the numbers of seals killed or captured under these permits." *Id.* art. 4(2).

103. *Id.* art. 6.

104. *Id.* art. 5(4).

105. *Id.* art. 5(4)-(5), (7).

106. See generally Barnes, *The Emerging Convention on the Conservation of Antarctic Marine Living Resources: An Attempt to Meet the New Realities of Resource Exploitation in the Southern Ocean*, in *NEW NATIONALISM*, *supra* note 4, at 239.

107. Marine Resources Convention, *supra* note 7, art. II, para. 2. The Convention defines the Antarctic marine ecosystem as "the complex of relationships of Antarctic marine living resources with each other and with their physical environment." *Id.* art. I, para. 3.

The Antarctic Convergence, also known as the Polar Front, is "a physical boundary at an average latitude of about 50 where cold, northward-flowing Antarctic surface water meets warmer southward-flowing water." A. PARSONS, *supra* note 6, at 55.

108. Marine Resources Convention, *supra* note 7, art. II, para. 3.

The Marine Resources Convention is similar to the Antarctic Treaty in several ways. Article IV of the Marine Resources Convention and article IV of the Antarctic Treaty preserve the positions of claimants and nonclaimants on territorial sovereignty in Antarctica.<sup>109</sup> As the other components of the Antarctic Treaty System already discussed, the Marine Resources Convention may be amended at any time.<sup>110</sup> While the procedures for dispute resolution of the Marine Resources Convention are similar to the dispute resolution procedures of the Antarctic Treaty, the former provides that if the parties to the dispute consent to arbitration, the arbitral tribunal must conform to the specific guidelines set forth in the annex to the Convention.<sup>111</sup> The Antarctic Treaty has no provision for a special arbitral tribunal, but it does allow parties to a dispute to resort to arbitration.<sup>112</sup>

The Marine Resources Convention establishes two institutions to aid in its administration: a Commission and a Scientific Committee.<sup>113</sup> The Commission is the central institution of the Marine Resources Convention. It meets regularly to discuss and vote on matters of importance concerning Antarctic marine resources.<sup>114</sup> The Commission has authority to appoint an Executive Secretary and a Secretariat to aid in carrying out the principles and objectives of the Convention.<sup>115</sup> Tasks performed by the Commission include facilitating research, compiling relevant population and environmental data, ensuring the receipt of catch and effort statistics, analyzing and publishing scientific data and the reports of the Scientific Committee, adopting necessary conservation measures, and implementing the Convention's inspection system.<sup>116</sup>

The Scientific Committee provides a "forum for consultation and cooperation concerning the collection, study and exchange of information

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109. *Id.* art. IV, para. 1. Article IV of the Convention also provides that nothing in the Convention nor any activities occurring during its effective period shall "affect the provision . . . of the Antarctic Treaty that no new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the Antarctic Treaty is in force." *Id.* art. IV, para. 2(d).

110. *Id.* art. XXX, para. 1.

111. *Id.* art. XXV, para. 3. Like the Antarctic Treaty provision for dispute settlement, the Marine Resources Convention provides that parties to the dispute must first try to settle the dispute peacefully among themselves. *Id.* art. XXV, para. 1.

112. *See supra* notes 64-65 and accompanying text.

113. Marine Resources Convention, *supra* note 7, arts. VII, XIV.

114. *Id.* art. XIII, para. 2. The headquarters of the Commission are in Hobart, Australia. *Id.* art. XIII, para. 1. The Antarctic Treaty Consultative Parties have no permanent headquarters.

115. *Id.* art. XVII, para. 2.

116. *Id.* art. IX.

with respect to the marine living resources."<sup>117</sup> Tasks performed by the Committee include developing criteria for the assessment of conservation measures, evaluating the status and trends of Antarctic marine resources populations, formulating proposals for Antarctic marine resources research programs, and forwarding reports and recommendations to the Commission.<sup>118</sup>

Members of the Marine Resources Convention have many obligations under the Convention. All parties to the Convention must give statistical and biological data to the Commission and the Scientific Committee regarding activities that may have an impact upon the Antarctic marine ecosystem.<sup>119</sup> Upon signing the Convention, each state, even if not party to the Antarctic Treaty, agree to "refrain from any activities in the Antarctic Treaty area contrary to the principles and purposes of the Treaty" and to abide by articles I and V of the Antarctic Treaty.<sup>120</sup> Additionally, all parties must acknowledge the "special obligations and responsibilities of the Antarctic Treaty Consultative Parties for the protection and preservation of the environment."<sup>121</sup> The contracting parties also must "agree that, in their activities in the Antarctic Treaty area, they will observe the Agreed Measures for the Conservation of Antarctic Fauna and Flora."<sup>122</sup>

#### IV. CONVENTION ON THE REGULATION OF ANTARCTIC MINERAL RESOURCE ACTIVITIES

The purpose of the Antarctic Minerals Convention is twofold: to protect the Antarctic environment and to preserve the Antarctic Treaty regime.<sup>123</sup> Mineral resource activities may never take place in Antarctica, but those who drafted the Convention believed it important that some framework be in place to regulate such activities should mineral exploration and exploitation become feasible. Permitting unregulated minerals activities could be destructive to the Antarctic environment and could

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117. *Id.* art. XV, para. 1.

118. *Id.* art. XV, para. 2. Article XV, paragraph 3, provides that the Scientific Committee shall also give consideration to the "relevant technical and scientific organizations and to scientific activities conducted within the framework of the Antarctic Treaty." *Id.* art. XV, para. 3.

119. *Id.* art. XX, paras. 1-3.

120. *Id.* art. III. Article I of the Antarctic Treaty refers to preserving Antarctica for "peaceful purposes." Antarctic Treaty, *supra* note 7, art. I. Article V prohibits nuclear explosions and the disposal of nuclear waste in Antarctica. *Id.* art. V.

121. Marine Resources Convention, *supra* note 7, art. V, para. 1.

122. *Id.* art. V, para. 2; *see id.* art. VI.

123. Minerals Convention, *supra* note 7, preamble.

lead to conflicts among states regarding rights to minerals resources and control over mineral resource development.<sup>124</sup> To ensure that no unregulated minerals activity occurs before the Minerals Convention enters into force, the thirty-three states involved in the negotiation of the Minerals Convention agreed to impose a moratorium on all minerals activity in Antarctica until after entry into force of the Minerals Convention.<sup>125</sup>

The Antarctic Treaty itself makes no provision for mineral resources.<sup>126</sup> It was not until 1972 that the Antarctic Treaty Consultative Parties formally recognized a need to address the minerals issue within the Antarctic Treaty context.<sup>127</sup> Between 1972 and 1982, the Consultative Parties, through various recommendations, developed several principles for the governance of mineral exploration and exploitation.<sup>128</sup> As summarized by Christopher Joyner, a noted commentator in this area, the principles are as follows:

- (1) The [Consultative Parties] should continue to play an active and responsible role in dealing with the question of Antarctic mineral resources.
- (2) The protection of the unique Antarctic environment and its dependent ecosystems should be a basic consideration.
- (3) The Antarctic Treaty must be maintained in its entirety.
- (4) The interests of all mankind should not be prejudiced.
- (5) The balance of interests embodied in Article IV of the Antarctic Treaty [freezing claims of territorial sovereignty to Antarctica] should not be endangered.<sup>129</sup>

These five principles are the basis for the Antarctic Minerals Convention.<sup>130</sup>

The Convention defines mineral resources as "all non-living natural non-renewable resources, including fossil fuels, metallic and non-metallic minerals."<sup>131</sup> Article 3, a central provision of the Convention, provides

124. See *supra* notes 36-48 and accompanying text.

125. Minerals Convention, *supra* note 7, art. 3. This voluntary restraint clause is similar to the one adopted by the Consultative Parties in 1977. Ninth Antarctic Treaty Consultative Meeting, Recommendation IX-1, para. 8 (1977), reprinted in 1 ANTARCTICA AND INTERNATIONAL LAW 337, 345 (W. Bush ed. 1982); see also INTERNATIONAL INSTITUTE REPORT, *supra* note 10, at 3-4.

126. As one writer notes, "The Antarctic Treaty deals primarily with those issues which at the time of its negotiation were a matter of concern for the countries active in the area." F. ORREGO VICUNA, *supra* note 49, at 39.

127. INTERNATIONAL INSTITUTE REPORT, *supra* note 10, at 8.

128. Joyner, *supra* note 11, at 75.

129. *Id.*

130. Minerals Convention, *supra* note 7, preamble.

131. *Id.* art. 1(6). Although ice is also a mineral resource, the present Convention

that "[no] Antarctic mineral resource activities shall be conducted except in accordance with this Convention and measures in effect pursuant to it."<sup>132</sup> Mineral resource activities under the Convention include the prospecting, exploration, and development of Antarctic mineral resources.<sup>133</sup>

The Minerals Convention is an "integral part of the Antarctic Treaty system."<sup>134</sup> Several provisions illustrate this proposition. Article 2 of the Convention recognizes the role of the Antarctic Treaty Consultative Parties in the minerals regime and reiterates that a primary goal of the Antarctic Treaty is the preservation of Antarctica for peaceful purposes.<sup>135</sup> It further provides that any mineral resource activities in Antarctica should be carried out "in a manner consistent with all the components of the Antarctic Treaty system and the obligations flowing therefrom."<sup>136</sup> Article 2 restates the special responsibility of the Consultative Parties regarding the protection of the environment and the needs to be fulfilled: to respect Antarctica's significance and influence on the world's environment; to respect other legitimate uses of the continent; to ensure the safety of Antarctic operations; to promote fair and effective participation of all parties; and to consider the interests of the international community.<sup>137</sup> Article 10 of the Convention provides that each party shall ensure that Antarctic mineral resource activities take place in a manner consistent with the components of the Antarctic Treaty System.<sup>138</sup> To secure such compliance, the Commission is to "consult and cooperate" with the Antarctic Treaty Consultative Parties, the contracting parties to the Seals Convention, and the Commission of the Marine Resources Convention.<sup>139</sup>

Several provisions deal with resource decision-making. Article 4 provides that parties should base all decisions concerning mineral resource activities on information "adequate to enable informed judgments to be made about their possible impacts."<sup>140</sup> Article 4(2) provides that no mineral resources activities shall take place until they are judged acceptable,

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excludes ice from the definition of mineral resources. See F. ORREGO VICUNA, *supra* note 49, at 159-61.

132. Minerals Convention, *supra* note 7, art. 3.

133. *Id.* art. 1(7). Mineral resource activities under the Convention do not include scientific research activities within the meaning of article III of the Antarctic Treaty. *Id.*

134. *Id.* art. 2(1).

135. *Id.* art. 2(3).

136. *Id.* art. 2(2).

137. *Id.* art. 2(3).

138. *Id.* art. 10(1).

139. *Id.* art. 10(2).

140. *Id.* art. 4(1).

based on an assessment that the activities will not cause or tend to cause "significant adverse effects" or "significant changes" in the Antarctic environment or its dependent or associated ecosystems.<sup>141</sup> The decision-making process must include assessments of the possible impact of the activity on the global environment, the cumulative impact on the Antarctic environment, the technology and procedures available, the capacity to monitor the environment and any changes in the ecosystem, and the ability to respond effectively to accidents that might occur.<sup>142</sup> Finally, article 15 provides that in making decisions concerning Antarctic minerals activities, other established uses of Antarctica must be respected.<sup>143</sup> Such protected interests include the operation of research stations, scientific investigation, the conservation of marine living resources, and tourism.<sup>144</sup>

Other provisions of the Minerals Convention deserve attention. Article 6 urges international participation in Antarctic mineral resources activities by the Consultative Parties of the Antarctic Treaty and other interested parties.<sup>145</sup> Article 9 of the Minerals Convention incorporates article IV of the Antarctic Treaty which preserves the legal status quo in Antarctica.<sup>146</sup> Article 9 provides that nothing in the Convention or any activities occurring under the Convention during its period of effectiveness shall create a basis for the assertion of a new claim or the expansion or diminution of an existing claim.<sup>147</sup> Articles 11 and 12 are the inspection provisions of the Convention. Article 11 provides for inspections in accordance with the Antarctic Treaty.<sup>148</sup> Article 12 sets forth additional inspection provisions, providing that "all stations, installations and equipment relating to Antarctic mineral resource activities," as well as ships and aircrafts engaged in such activities "at points of discharging or embarking cargoes or personnel anywhere in that area shall be open at all times to inspections" by designated observers.<sup>149</sup> Article 13 prohibits mineral resource activities in protected areas.<sup>150</sup> Finally, article 16 pro-

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141. *Id.* art. 4(2).

142. *Id.* art. 4(3)-(5).

143. *Id.* art. 15.

144. *Id.* art. 15(1).

145. *Id.* art. 6.

146. *Id.* art. 9; *see also supra* note 60 and accompanying text.

147. Minerals Convention, *supra* note 7, art. 9(a).

148. *Id.* art. 11; *see also supra* note 62 and accompanying text.

149. Minerals Convention, *supra* note 7, art. 12(1). Article 12(2) provides that parties may conduct aerial inspections at any time over any area in which mineral activities are regulated. *Id.* art. 12(2).

150. *Id.* art. 13; *see also supra* note 92 and accompanying text.

vides that "to the greatest extent practicable and feasible," data and information gathered during mineral resource activities should be made freely available.<sup>151</sup>

Some significant differences exist between the Minerals Convention and other components of the Antarctic Treaty System. One such difference exists with regard to the amendment process. The Antarctic Treaty, the Agreed Measures, the Seals Convention, and the Marine Resources Convention can be amended at any time.<sup>152</sup> The Minerals Convention, however, cannot be amended until ten years after the date of its entry into force.<sup>153</sup> Another difference concerns dispute settlement, in which the Minerals Convention provisions are more detailed than those of the Antarctic Treaty or any of the other component conventions.<sup>154</sup> Unlike the other agreements of the Antarctic Treaty System, the Minerals Convention provides that if the disputing parties fail to agree on a means for resolving their differences within a certain time period, any party may then request that the matter be referred to an appropriate tribunal.<sup>155</sup> The Antarctic Treaty and the other conventions designate no specific time period within which the parties must reach an accord.<sup>156</sup>

#### A. Institutions

The negotiating parties set up five institutions to administer the Minerals Convention: a Commission; Regulatory Committees; a Scientific, Technical and Environmental Advisory Committee; a Special Meeting of Parties; and a Secretariat.<sup>157</sup> Only the Commission and the Regulatory Committees have any decision-making authority.<sup>158</sup>

The Commission is the central institution of the Minerals Convention

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151. Minerals Convention, *supra* note 7, art. 16; see Mitchell, *supra* note 80, at 65. Mitchell observes that the "secrecy that is part and parcel of commercial exploration" may hinder the free exchange of information. *Id.*

152. See *supra* notes 66, 95, 100, 110 and accompanying text.

153. Minerals Convention, *supra* note 7, art. 64(1).

154. *Id.* arts. 55-59.

155. See *supra* notes 65, 111 and accompanying text. The period varies from six to twelve months. Minerals Convention, *supra* note 7, art. 57; see notes 237-39 and accompanying text.

156. See Antarctic Treaty, *supra* note 7, art. XI; Marine Resources Convention, *supra* note 7, art. XXV. The Agreed Measures and the Seals Convention contain no dispute resolution provision.

157. Minerals Convention, *supra* note 7, art. 18 (Antarctic Mineral Resources Commission); *id.* art. 29 (Regulatory Committees); *id.* art. 23 (Scientific, Technical and Environmental Advisory Committee); *id.* art. 28 (Special Meeting of Parties); *id.* art. 33 (Secretariat).

158. See *infra* notes 160-73 and accompanying text.

regime. Commission members are all states that were Consultative Parties to the Antarctic Treaty System as of November 25, 1988.<sup>159</sup> Other parties may become members if they are involved in substantial scientific or environmental research in the treaty area that is relevant to decision-making in the Antarctic minerals regime, or if they are sponsoring mineral activities under a valid Management Scheme<sup>160</sup> during the period of its validity.<sup>161</sup> Observer status is open to any party to the Convention and any Consultative Party that is not a member of the Convention.<sup>162</sup> The Commission's main responsibilities are to oversee minerals resource activities and to ensure the adoption of safe and effective mineral exploration and development techniques.<sup>163</sup> The Commission's functions include making decisions on requests to open areas for exploration and development, identifying the area and specific minerals to be explored and developed, and designating areas that are closed to minerals activities.<sup>164</sup>

Regulatory Committees are responsible for overseeing and regulating proposed mineral exploration and development activities.<sup>165</sup> These Committees are formed upon the Commission's decision to designate a certain area for minerals activities.<sup>166</sup> A separate Regulatory Committee is set up for each specific geographic area identified by the Commission.<sup>167</sup> Consultative Parties are required to fill ten permanent spots on the Committee.<sup>168</sup> Six of the ten members must be states without claims to Antarctic territory, and the other four must be claimant states.<sup>169</sup> Parties submitting applications for a permit and parties sponsoring approved development activities within the area under the Committee's oversight may gain temporary membership.<sup>170</sup> Observer status is open to any party

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159. Minerals Convention, *supra* note 7, art. 18(2)(a); *see also supra* note 10.

160. Minerals Convention, *supra* note 7, art. 47. A "Management Scheme" is a set of guidelines and requirements set forth by a Regulatory Committee to govern minerals activity in a specific area. *Id.*

161. *Id.* art. 18(2)(b)-(c).

162. *Id.* art. 18(6).

163. *Id.* art. 21.

164. *Id.* art. 21(b)-(d).

165. *Id.* arts. 29, 31, 43.

166. *Id.* arts. 29(1), 43(1).

167. *Id.*

168. *Id.* art. 29(2).

169. *Id.* Article 29(3) gives the Commission the responsibility to ensure that the composition of the Regulatory Committee complies with the Convention. *Id.* art. 29(3); *see supra* notes 52-53 and accompanying text.

170. Minerals Convention, *supra* note 7, art. 29(6).

to the Minerals Convention.<sup>171</sup> Once formed, the Regulatory Committee may divide the designated minerals activity area into appropriate blocks, establish fees and procedures for permit applications, and develop methods for resolving disputes concerning competing applications.<sup>172</sup> The Committee must also develop general requirements for exploration and development within the specified area.<sup>173</sup>

Regulatory Committees have considerable power in granting exploration and development permits. They may decline an application at any time during its consideration if they believe the proposed activities fail to conform to the Convention's requirements.<sup>174</sup> They may also suspend, modify, or cancel a management scheme or impose monetary penalties under certain circumstances.<sup>175</sup> A two-thirds majority of the Regulatory Committee, which consists of a simple majority of both the six non-claimant state members and the four claimant state members, must approve any Management Scheme for the development of mineral resources.<sup>176</sup>

All parties to the Minerals Convention are members of the Scientific, Technical and Environmental Advisory Committee.<sup>177</sup> Observer status in this group is open to any party that is not party to the Minerals Convention but is party to either the Antarctic Treaty or the Marine Resources Convention.<sup>178</sup> The Advisory Committee is not a decision-making body; its duty is to provide advice on decisions requiring scientific, technical, or environmental expertise.<sup>179</sup> Article 26 provides that the Advisory Committee shall serve as a "forum for consultation and cooperation concerning the collection, exchange and evaluation of information related to the scientific, technical and environmental aspects of Antarctic mineral resource activities."<sup>180</sup>

The Special Meeting of Parties is an institution that allows non-Consultative Parties to participate in the Minerals Convention.<sup>181</sup> The membership of the Special Meeting of Parties includes all states party to the

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171. *Id.* art. 30(4).

172. *Id.* arts. 31, 43.

173. *Id.* art. 41.

174. *Id.* art. 45.

175. *Id.* art. 51.

176. *Id.* art. 48.

177. *Id.* art. 23(2).

178. *Id.* art. 23(4).

179. *Id.* art. 26.

180. *Id.* art. 26(1).

181. *Id.* arts. 28, 40.

Minerals Convention.<sup>182</sup> Observer status is open to certain international organizations and any Antarctic Treaty member that is not party to the minerals regime.<sup>183</sup> The Special Meeting of Parties, like the Advisory Committee, possesses no decision-making authority. The Convention directs the Special Meeting of Parties to provide advice to the Commission on whether to identify an area for possible minerals exploration and development.<sup>184</sup>

The Minerals Convention also provides that the Commission may establish a Secretariat staff as it deems necessary.<sup>185</sup> The Secretariat is accessible to all other institutions; it performs, subject to budget approval, the functions assigned to it by the Commission or entrusted to it by any of the other institutions.<sup>186</sup>

### B. *Procedures for Conducting Minerals Activities*

The Minerals Convention regulates three stages of minerals activity: prospecting, exploration, and development.<sup>187</sup> Analysis of each stage provides a better understanding of how the Minerals Convention conducts its regulatory duties.

Prospecting, as defined by the Convention, is any activity directed at the identifying areas of mineral resources for possible exploration, with the exception of most dredging excavations.<sup>188</sup> Unlike the other stages of minerals activity, prospecting is not subject to prior authorization by the Convention's institutions.<sup>189</sup> A state sponsoring any prospecting activity must merely notify the Commission at least nine months in advance of prospecting.<sup>190</sup> The Commission must then notify all parties and observers that attend meetings of prospecting activity in Antarctica.<sup>191</sup> The sponsoring state must specify in the notice where activities will occur, what types of mineral resources the state hopes to find, what methods it plans to employ, and the length of the planned activity.<sup>192</sup> The state must also certify both the link between the operator and the state, and

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182. *Id.* art. 28(2).

183. *Id.* art. 28(3).

184. *Id.* arts. 28(1), 40(3).

185. *Id.* art. 33.

186. *Id.* art. 33(4).

187. *See supra* note 133 and accompanying text.

188. Minerals Convention, *supra* note 7, art. 1(8).

189. *Id.* art. 37(2).

190. *Id.* art. 37(8)-(9).

191. *Id.* art. 37(9).

192. *Id.* art. 37(7).

the technical and financial capacity of the operator.<sup>193</sup> Additionally, the sponsoring state must furnish an assessment of the possible impacts of the activities, with special emphasis on environmental impacts. This assessment must include a description of the measures, monitoring programs, and emergency programs that the state will adopt to avoid harmful environmental consequences or that will interfere with other uses of Antarctica.<sup>194</sup> Finally, states sponsoring prospecting must file annual reports and must notify the Commission of termination of prospecting in an area.<sup>195</sup>

Exploration, as defined by the Convention, is any activity directed at the location and evaluation of specific mineral resource occurrences and deposits.<sup>196</sup> Exploration includes exploratory drilling, dredging, and other surface or subsurface excavations necessary to determine the nature and size of the deposits and feasibility of development, but the definition excludes "pilot projects or commercial production."<sup>197</sup>

Prior to the instigation of mineral resource exploration activities, a party must pass a series of steps to obtain approval of a specific Management Scheme.<sup>198</sup> Any state party to the Minerals Convention may request that a specific area be opened for exploration and development activities.<sup>199</sup> All parties and observers attending Commission meetings must view the request and, within two months after submission, the Commission must consider and vote on the request.<sup>200</sup> To pass, the request must receive the approval of a consensus of the Commission.<sup>201</sup>

Immediately following the Commission's decision to identify an area for development, the Commission shall set up a Regulatory Committee.<sup>202</sup> The Regulatory Committee is responsible for establishing procedures, handling applications for exploration permits, and establishing general requirements for exploration and development within the identified area.<sup>203</sup> The Committee is responsible for examining the regulations for consistency with the provisions of the Convention and relevant Com-

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193. *Id.* art. 37(3), (7)(f).

194. *Id.* art. 37(7).

195. *Id.* art. 37(8).

196. *Id.* art. 1(9).

197. *Id.*

198. *Id.* arts. 44-45; *see supra* notes 160 (describing a "Management Scheme"), 207-16 and accompanying text.

199. *Id.* arts. 39, 44(1)-(2).

200. *Id.* arts. 19(2), 39.

201. *Id.* art. 41.

202. *Id.* art. 43(3).

203. *Id.*

mission measures.<sup>204</sup> Once this process is complete, the Regulatory Committee may accept applications for exploration permits.<sup>205</sup> The party submitting the application must identify the minerals; show that the party's proposed activities conform with the Regulatory Committee's requirements; provide an assessment of the possible impacts of the activities, especially environmental impacts; describe the operator's ability to respond to accidents; and demonstrate that the application complies with the Commission's measures involving international participation.<sup>206</sup>

The next step in the application process for an exploration permit is the formulation of a Management Scheme, which contains the specific terms and conditions that will govern the exploration and development activities.<sup>207</sup> The Management Scheme must be approved by two-thirds of the Regulatory Committee before it may be implemented; this approval must consist of a simple majority of the four claimant states on the Committee and a simple majority of the six nonclaimant states.<sup>208</sup>

Upon issuance of the exploration permit, the operator has exclusive rights to explore and develop the mineral resources as provided in the Management Scheme.<sup>209</sup> The decision of the Regulatory Committee is not, however, necessarily absolute; upon request by any member of the Commission within one month of the Committee's decision, the Commission may convene and by a three-fourths majority ask the Regulatory Committee to reconsider its approval of the exploration permit and Management Scheme.<sup>210</sup> The Regulatory Committee has much autonomy in this process. It is not required to reconsider its approval, but it has the power on its own initiative to suspend, modify, or cancel by a two-third majority any approved Management Scheme or to impose monetary penalties on the sponsoring state for any deviation from the Convention or Management Scheme.<sup>211</sup>

If the sponsoring state's operator has a valid exploration permit, the sponsoring state may apply for a development permit.<sup>212</sup> The procedure is similar to that for obtaining an exploration permit. The sponsoring state must update all information provided on the application for the exploration permit and submit an assessment of the foreseeable impacts

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204. *Id.* art. 43(4)-(5).

205. *Id.* art. 44.

206. *Id.*

207. *Id.* arts. 45-47.

208. *Id.* arts. 29, 32, 48.

209. *Id.* art. 48.

210. *Id.* arts. 22, 49.

211. *Id.* art. 51.

212. *Id.* art. 53(1).

of the proposed development activities, especially environmental impacts.<sup>213</sup> Before the Regulatory Committee may issue a development permit, it must agree by a two-thirds majority either that the proposed modifications to the Management Scheme are satisfactory or that no modifications are necessary.<sup>214</sup> Here again, the Commission has authority to ask the Regulatory Committee to reconsider its decision whether to grant the development permit.<sup>215</sup> The Regulatory Committee has the sole power to determine whether it will reconsider its decision; the Committee can modify or withdraw its approval of the development permit on its own initiative.<sup>216</sup>

### C. *Enforcement*

The Minerals Convention does not assign specific enforcement rights. Both the claimant and nonclaimant parties to the Convention sought to avoid provisions that could prejudice their legal positions in Antarctica.<sup>217</sup> Instead, the Convention provides that all parties have a responsibility and right to ensure compliance with the Convention.<sup>218</sup> The Convention allows designated observers and Consultative Parties to conduct inspections of the area covered by the Convention.<sup>219</sup> Regulatory Committees must monitor operator compliance with Management Schemes within their assigned area.<sup>220</sup> Those reports and the reports from all inspections are placed on the public record.<sup>221</sup> Observers may review inspection reports, monitoring reports, and other reports submitted to the Commission and the Advisory Committee.<sup>222</sup> Each sponsoring state also must submit to the Commission an annual report on its prospecting activities.<sup>223</sup>

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213. *Id.* art. 53(2).

214. *Id.* art. 54.

215. *Id.* art. 49.

216. *Id.* art. 51.

217. INTERNATIONAL INSTITUTE REPORT, *supra* note 10, at 6.

218. Minerals Convention, *supra* note 7, art. 7(1).

219. *Id.* arts. 11-12. Each party to the Minerals Convention may designate observers in accordance with article VII of the Antarctic Treaty. *Id.* art. 11.

220. *Id.* art. 52.

221. *Id.* arts. 16, 31(3), 52(3).

222. *Id.* art. 31(3).

223. *Id.* art. 37(8)(c).

#### D. *Liability and Responsibility*

The sponsoring state and operator have a duty to ensure that no mineral resource activity causes or threatens to cause damage to Antarctica.<sup>224</sup> Sponsoring states must ensure that the operator at all times has the financial and technical means for compliance with the Minerals Convention,<sup>225</sup> and that the operator responds properly if any threats to the environment arise. The sponsoring state is liable if it does not take appropriate action when its operator fails to respond properly to an environmental threat.<sup>226</sup> The operator is strictly liable for any damage to the Antarctic environment or its associated ecosystems,<sup>227</sup> as well as for loss or damage to a third party's property or life, and for costs incurred in relation to prevention, clean up and removal measures, and restoration of the Antarctic environment.<sup>228</sup> The operator has a defense only if it can prove (1) that the damage was caused directly by either an unforeseen natural disaster, an armed conflict or act of terrorism against the operator, or an intentional or grossly negligent act or omission of another party; and (2) that no reasonable precautionary efforts could have prevented the damage.<sup>229</sup>

The Convention provides for the adoption of more rules and procedures on liability to enhance the protection of the Antarctic environment and dependent or associated ecosystems.<sup>230</sup> Until these additional rules are in place, no state may submit an application for mineral exploration or development.<sup>231</sup>

#### E. *Dispute Settlement*

The dispute settlement provisions of the Minerals Convention differ from those of the Antarctic Treaty. Article 57 of the Convention provides that if a dispute concerning the interpretation or application of the Minerals Convention arises, the parties to the dispute shall meet and attempt to settle the dispute peacefully by mutually agreed means.<sup>232</sup> The Convention, however, also provides two additional forums for dispute settle-

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224. *Id.* arts. 8, 37.

225. *Id.* art. 44(2)(d).

226. *Id.* art. 8(3).

227. *Id.* art. 8(2)(a).

228. *Id.* art. 8(2)(c)-(d).

229. *Id.* art. 8(4)-(6).

230. *Id.* art. 8(7).

231. *Id.*

232. *Id.* art. 57(1).

ment: the International Court of Justice and the Arbitral Tribunal.<sup>233</sup> Each contracting party may choose either one of these options or both.<sup>234</sup>

The Convention urges parties to settle their disputes without resorting to the International Court of Justice or the Arbitral Tribunal.<sup>235</sup> Article 57(2), however, provides that if the parties to a dispute fail to agree on a means for resolving the dispute within twelve months of the request for consultation, any party to the dispute can request referral of the matter to the International Court of Justice or the Arbitral Tribunal in accordance with paragraphs 4 and 5 of article 56 of the Convention.<sup>236</sup> Article 57(3) provides that if the parties fail to reach an agreement in a dispute that relates to a "measure in effect pursuant to this Convention or a Management Scheme" after six months, any party to the dispute may request that the matter proceed before the appropriate institution for discussion. It further provides that if after twelve months the parties still have no agreement, the matter is to be referred to the Arbitral Tribunal.<sup>237</sup>

The Convention allows any party, by written declaration at any time, to provide that a specific type of dispute falls outside the provisions of paragraphs 2 and 3 of article 57.<sup>238</sup> Only a few categories of disputes cannot be excluded from the operation of article 57. These disputes are those that involve the interpretation or application of the following: (1) any provision of the Minerals Convention or any effective measures relating to the protection of the Antarctic environment or dependent or associated ecosystems; (2) article 7(1), which relates to measures taken by parties to ensure compliance with the Convention; (3) article 8, which describes with the Convention's liability and response actions; (4) article 37, which governs prospecting; (5) article 12, which outlines inspections; (6) articles 13 and 15, which discuss protected areas and respect for other uses of Antarctica; and (7) article 14, which provides for nondiscrimination against any party or its operators in the implementation of the Convention.<sup>239</sup> Article 57, in its entirety, applies to the above categories of disputes. A party to a dispute that arises in any of these non-excludable categories, however, may request the formation of an Arbitral Tribunal to issue provisional measures to preserve the rights of the par-

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233. *Id.* art. 56. The Arbitral Tribunal is special panel instituted under the Convention. *Id.* annex.

234. *Id.* art. 56.

235. *Id.* art. 57(1).

236. *Id.* art. 57(2). None of the other components of the Antarctic Treaty System contains such a twelve month provision.

237. *Id.* art. 57(3).

238. *Id.* art. 58(2).

239. *Id.* art. 58(1).

ties to the dispute or to prevent serious harm to the Antarctic environment.<sup>240</sup>

Article 59 sets forth additional dispute settlement procedures. It provides that the Commission, in conjunction with its responsibilities in the identification of an area for possible exploration and development, shall establish additional procedures for the settlement of

disputes which may arise if it is alleged that a violation of this Convention has occurred by virtue of:

- (a) a decision to decline a Management Scheme;
- (b) a decision to decline the issue of a development permit; or
- (c) a decision to suspend, modify or cancel a Management Scheme or to impose monetary penalties.<sup>241</sup>

## V. DEMISE OF THE MINERALS CONVENTION

The Antarctic Treaty System has faced many challenges since its creation in 1959. Originally developed as a "framework for cooperation in scientific research," the System has increasingly dealt with many more difficult issues.<sup>242</sup> The issue of Antarctic minerals exploration and exploitation presents perhaps the most difficult challenge the Consultative Parties have ever faced under the Antarctic Treaty System. Some states hope that regulated mining in Antarctica will provide badly needed mineral resources.<sup>243</sup> Other states assert that Antarctic mineral exploitation will have serious adverse effects on the Antarctic environment and its dependent and associated ecosystems.<sup>244</sup> These latter states also believe that mining will interfere with scientific research in Antarctica and other uses of Antarctica, such as the conservation of Antarctic fauna, flora, seals, and marine living resources.<sup>245</sup> Deciding whether or not to allow minerals activity in Antarctica and, if so, under what circumstances, will be no easy task.

International sentiment has been stirring for some time against the establishment of a minerals regime. Since the beginning of the negotiation process, environmental groups, such as the Antarctic and Southern Ocean Coalition (ASOC) and Greenpeace International, have opposed any agreement that allows any form of exploitation or mining in Antarc-

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240. *Id.* art. 58(2).

241. *Id.* art. 59(1).

242. F. AUBURN, *supra* note 3, at 147.

243. Pinto, *supra* note 1, at 480.

244. *See supra* notes 36-46 and accompanying text.

245. *See supra* notes 19-35 and accompanying text.

tica.<sup>246</sup> Greenpeace argues that mineral exploration and exploitation activities should never occur in Antarctica, but that Antarctica should be set aside as a "World Park."<sup>247</sup> Both the ASOC and Greenpeace argue that no international agreement allowing minerals activities in Antarctica could adequately protect the Antarctic environment. Both groups favor a permanent moratorium on Antarctic mineral resource development in order to preserve the continent as a site for scientific investigation.<sup>248</sup>

Some groups have even challenged the competency of the Antarctic Treaty System to deal effectively with the minerals issue. Most of the criticism of the present system centers on the exclusivity of the Antarctic Consultative parties. Critics assert that "the Antarctic Treaty parties constitute a self-designated group which has taken control of the continent since 1959 and is not representative of the international community."<sup>249</sup> Other critics point to the lack of a strong international organization and permanent secretariat in Antarctica.<sup>250</sup> In a United Nations debate, several developing countries voiced their resentment of the Antarctic System for giving the Consultative Parties the exclusive right to make decisions on all matters affecting scientific research, environmental protection, and the possible exploitation of minerals in Antarctica.<sup>251</sup> Recognizing the inherent conflicts "between exploiting Antarctica and preserving it for scientific study . . .," Trinidad and Tobago argued that the search for a solution can "no longer be left to a self-elected few."<sup>252</sup> Many developing countries want a broader international agreement for Antarctica, one that would allow participation by all nations of the world and ensure that activities in Antarctica were carried out for the benefit of all humanity.<sup>253</sup>

Shortly, after the June 1988 signing of the Minerals Convention, some groups expressed discontent with the Convention. In a recent paper, the ASOC cited several provisions of the Convention that it felt

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246. ANTARCTIC AND SOUTHERN OCEAN COALITION, ANALYSIS OF THE CONVENTION ON THE REGULATION OF ANTARCTIC MINERAL RESOURCE ACTIVITIES (Information Paper 1988-4, 1988) [hereinafter ASOC PAPER]. The ASOC is a group composed of over two hundred conservation and environmental organizations in thirty-five nations. *Id.* at 3; *see also* Tetzeli, *supra* note 35, at 540.

247. A. PARSONS, *supra* note 6, at 36.

248. ASOC PAPER, *supra* note 246; Tetzeli, *supra* note 35, at 540.

249. F. ORREGO VICUNA, *supra* note 49, at 479.

250. F. AUBURN, *supra* note 3, at 156; Triggs, *supra* note 55, at 195.

251. 1984 ANNUAL REVIEW OF UNITED NATIONS AFFAIRS 371-74 (D. Lincoff ed.).

252. *Id.* at 372-73.

253. *Id.* at 371-74.

were weak and ambiguous.<sup>254</sup> For example, the group noted that Article 4, which provides that “[d]ecisions about Antarctic mineral resource activities shall be based upon information adequate to enable informed judgments,” was ambiguous because the provision failed to define “adequate” and “informed judgment.”<sup>255</sup> Article 15 is another provision that the ASOC considered weak. This provision stipulates that decisions about mineral resource activities “shall take into account the need to respect other uses of Antarctica.” The ASOC suggested that the phrase “take into account the need to respect” be replaced with the phrase “ensure to the maximum extent practical that there is no interference with”<sup>256</sup> in order to strengthen the provision. The group also criticized the Convention’s definition of “damage” because it was unclear as to whether liability extended to activities “judged acceptable” which subsequently resulted in “significant” adverse effects on the Antarctic environment. They insisted that the Convention’s failure to define “significant” exacerbated this ambiguity.<sup>257</sup>

The ASOC also questioned the powers of some of the Convention’s enforcement mechanisms. The group asserted that the Commission should have power to override a Regulatory Committee’s issuance of an exploration or development permit if the Commission finds the decision unacceptable.<sup>258</sup> The present provision allows the Commission only to ask the Regulatory Committee to reconsider its decision.<sup>259</sup> The ASOC also stressed that the Regulatory Committee should be more accountable to the other institutions and observers. Under the Convention, the Regulatory Committee is not required to keep records of its meetings, nor must it reveal anything concerning its discussions regarding compliance with the Convention.<sup>260</sup>

Other aspects of the Minerals Convention regime also could lead to problems for the Consultative Parties. The mechanism for dispute settlement is one such aspect. The Antarctic Treaty, the Marine Resources Convention, and the Minerals Convention all provide slightly different procedures for resolving disputes between parties. The Antarctic Treaty does not provide for a special Arbitral tribunal as does the Marine Re-

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254. See ASOC PAPER, *supra* note 246, at 4-7.

255. *Id.* at 4 (discussing Minerals Convention, *supra* note 7, art. 4).

256. ASOC PAPER, *supra* note 246, annex A, at 7 (discussing Minerals Convention, *supra* note 7, art. 15).

257. *Id.* at 5.

258. *Id.* at 6.

259. *Id.* at 5-7.

260. Minerals Convention, *supra* note 7, art. 31.

sources Convention.<sup>261</sup> The Minerals Convention is the only component of the System to provide that any party to the dispute may request after twelve months of dispute that dispute settlement become binding upon the parties.<sup>262</sup> Neither the Agreed Measures nor the Seals Convention have dispute settlement mechanisms.<sup>263</sup> Certainly, the method of dispute settlement within the Antarctic Treaty System is a cause for concern. Which procedures for dispute settlement would govern a dispute that fell within the authority of two or more components of the Antarctic Treaty System?

The demise of the Antarctic Minerals Convention, although surprising, was not without warning. Doubtless the considerations listed above—concern for the environment, politics, the ambiguous and troublesome nature of the agreement itself—all contributed to the waning and eventual death of the Minerals Convention. But the one consideration most responsible for eroding state support for the proposed minerals regime is the growing international concern for the Antarctic environment. As recent events demonstrate, this concern has effectively smothered any hopes for ratification of the Minerals Convention in its present form.

In April 1989, France withdrew support from the Minerals Convention, hoping to placate the state's environmental lobby.<sup>264</sup> French Prime Minister Michel Rocard declared that the Minerals Convention merely "pretend[s] to establish strict control in the industrial exploitation of the Antarctic."<sup>265</sup> At this time France did not, however, abandon the notion of establishing an Antarctic minerals regime. Instead, France sought to make new proposals to shore up the Minerals Convention and to reopen negotiations on the agreement. Rocard then thought the treaty could be "greatly improved."<sup>266</sup>

A few weeks after France announced its opposition to the Minerals Convention in its present form, Australian Prime Minister Bob Hawke proclaimed that Antarctic mining should be opposed.<sup>267</sup> While vowing to protect the Antarctic environment, Hawke did not indicate whether he planned to sign the Minerals Convention. At that time, the Australians were split on the Convention issue. Australian Foreign Minister Gareth

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261. *Id.* annex.

262. *Id.* art. 57.

263. *See supra* notes 95, 100 and accompanying text.

264. *France Wants Review of Antarctic Treaty*, Reuter News Reports, Apr. 24, 1989 (LEXIS, NEXIS Library, WIRES File).

265. *Id.*

266. *Id.*

267. *Australian PM Against Antarctic Mining*, Xinhua (New China) News Service, May 4, 1989 (LEXIS, NEXIS Library, WIRES File).

Evans and Minister for the Environment Graham Richardson both supported the agreement, sharing the view that implementation of the Minerals Convention would be the only way to protect the Antarctic environment from unregulated mining.<sup>268</sup> But the Australian Senate on May 3, 1989 passed a motion in opposition to the agreement.<sup>269</sup>

Two weeks after the Australian Senate's expression of opposition, Australia removed any doubt as to its stand on the Minerals Convention, announcing that it would not sign the agreement.<sup>270</sup> Prime Minister Hawke said "the Australian Government is opposed to mining the Antarctic, and because of that firm position that we have, we do not intend to sign the convention."<sup>271</sup> Hawke announced plans to pursue a comprehensive convention for the protection of the Antarctic environment, urging other states to join Australia in banning mining on the Antarctic continent altogether.<sup>272</sup> Australia also indicated its hope of turning the Antarctic into a world park,<sup>273</sup> a notion originally promulgated by the environmental group Greenpeace.<sup>274</sup> Australia did not, however, foreclose the possibility of accepting the Minerals Convention if there were no other way to ensure the protection of the Antarctic environment.<sup>275</sup>

The withdrawal of support by France and Australia signalled the death knell of the Minerals Convention. To enter into force, the Minerals Convention must receive the ratification of sixteen states, including the seven states with territorial claims to Antarctica.<sup>276</sup> France and Australia are both claimant states.<sup>277</sup> The five remaining states—Argentina, Chile, New Zealand, Norway, and the United Kingdom<sup>278</sup>—have maintained their support for the agreement.<sup>279</sup> Italy, India, Belgium, and

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268. *Id.*; see Woodward, *Exxon Disaster Jeopardizes Antarctic Minerals Convention*, Reuter News Reports, May 15, 1989 (LEXIS, NEXIS Library, WIRES File).

269. *Australian PM Against Antarctic Mining*, Xinhua (New China) News Service, May 4, 1989 (LEXIS, NEXIS Library, WIRES File).

270. *Australia Rejects Proposed Antarctic Mining Treaty*, Xinhua (New China) News Service, May 22, 1989 (LEXIS, NEXIS Library, WIRES File).

271. *Id.*

272. *Id.*

273. *Id.*

274. See *supra* note 247 and accompanying text.

275. *Australia Rejects Proposed Antarctic Mining Treaty*, Xinhua (New China) News Service, May 22, 1989 (LEXIS, NEXIS Library, WIRES File).

276. Minerals Convention, *supra* note 7, art. 61; see *supra* note 10.

277. See *supra* note 10.

278. *Id.*

279. Woodward, *supra* note 268.

East Germany have abstained from signing the Minerals Convention.<sup>280</sup>

New Zealand has continued to demonstrate its support for the Minerals Convention and has openly criticized Australia and France for failing to do so. Chris Beeby, the New Zealand Deputy Secretary of External Relations and Trade who chaired the six-year negotiation of the Minerals Convention, said Australia's failure to support the treaty could jeopardize the existing moratorium on Antarctic mining.<sup>281</sup> Beeby disputed Australian and French assertions that the establishment of an Antarctic world park would better protect the Antarctic environment.<sup>282</sup> Instead, Beeby claimed that the Minerals Convention, which bars Antarctic mining until all parties otherwise agree, offers "total and timeless prohibition" against mining, as opposed to the "unachievable utopia" sought by Australia.<sup>283</sup>

In the late summer of 1989, France and Australia joined forces to persuade signatories to the Antarctic Treaty to make Antarctica an international wilderness reserve.<sup>284</sup> French Prime Minister Rocard, meeting with Australian Prime Minister Hawke in Canberra in August 1989, told reporters that environmentalism was the main theme of his Pacific tour.<sup>285</sup> In a joint statement issued on August 18, 1989, the two Prime Ministers declared, "Mining in Antarctica is not compatible with protection of the fragile Antarctic environment."<sup>286</sup>

Australia later announced that it would stand firm on its decision to withdraw support from the Minerals Convention and establish Antarctica as a world park.<sup>287</sup> Australian Foreign Minister Gareth Evans disputed a prediction by Tucker Scully, of the United States Department of State's Office of Marine Science and Polar Affairs, that Australia would back down from its position against mining.<sup>288</sup> Evans noted that the "ob-

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280. Popyk, *Antarctica Preserve Urged*, United Press International Wire, Oct. 10, 1989 (LEXIS, NEXIS Library, WIRES File).

281. *New Zealand Criticizes Australia Over Antarctic Issue*, Xinhua (New China) News Service, July 10, 1989 (LEXIS, NEXIS Library, WIRES File).

282. *Id.*

283. *Id.*; see also *N.Z. New Initiative on Antarctic Environmental Protection*, Xinhua (New China) News Service, Aug. 9, 1989 (LEXIS, NEXIS Library, WIRES File).

284. Martin, *France Joins Australia in Fight to Save Antarctica*, Daily Telegraph (London), Aug. 9, 1989 (LEXIS, NEXIS Library, WIRES File).

285. *Id.*

286. Browne, *France and Australia Kill Pact on Limited Antarctic Mining and Oil Drilling*, N.Y. Times, Sept. 25, 1989, at A10, col. 1.

287. *Australia's Position on Antarctica Will Not Change, FM Says*, Xinhua (New China) News Service, Sept. 14, 1989 (LEXIS, NEXIS Library, WIRES File).

288. *Id.*

durate" United States position was "just something we've got to work around like all other road-blocks we confront as we embark on ambitious and important international policy initiatives."<sup>289</sup>

Behind the scenes of world events, French explorer Jacques-Yves Cousteau has been instrumental in marshalling opposition to the Minerals Convention. He is credited with prompting the French to withdraw its support from the Minerals Convention<sup>290</sup> and with encouraging Australia, Belgium, and India also to oppose the agreement.<sup>291</sup> Cousteau has been remarkably effective in this campaign, as the *Washington Post* recently observed:

Who can resist this guy? In France, his Fondation Cousteau gets a million signatures against the [Minerals] Convention and—*voilà!*—suddenly the government, naturally, is no longer for it. He goes down to Australia and talks with the prime minister there, Bob Hawke, and—*voilà!*—Australia is no longer for it.<sup>292</sup>

In September 1989, Cousteau came to Washington to lobby United States policymakers.<sup>293</sup> He met with officials in the State Department and with Senate Foreign Relations Chairman Claiborne Pell.<sup>294</sup> Cousteau met with less success in Washington than elsewhere. There is no indication that the United States plans to withdraw its support for the Minerals Convention.<sup>295</sup>

In October 1989, the Fifteenth Annual Meeting of the Consultative Parties to the Antarctic Treaty convened in Paris.<sup>296</sup> Although the Minerals Convention issue was not on the formal agenda, it was "the main topic of conversation in the corridors."<sup>297</sup> French Prime Minister Michel

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289. *Id.*

290. *France Wants Review of Antarctic Treaty*, Reuter News Reports, Apr. 24, 1989 (LEXIS, NEXIS Library, WIRES File).

291. Mikkelsen, *Cousteau Says He Has Commitments to Block Antarctic Treaty*, Reuter News Reports, Sept. 20, 1989 (LEXIS, NEXIS Library, WIRES File).

292. McCombs, *Cousteau's Washington Plunge*, Wash. Post, Sept. 21, 1989, at C1, col. 1, C15, col. 1.

293. *Id.* at C1, col. 1.

294. *Id.* at C15, col. 1.

295. Whelan, *U.S., Britain Oppose Plan to Declare Antarctica World Park*, Reuter News Reports, Oct. 10, 1989 (LEXIS, NEXIS Library, WIRES File).

296. Clover, *Britain to Oppose Antarctic Reserve*, Daily Telegraph (London), Oct. 9, 1989 (LEXIS, NEXIS Library, WIRES File). The Consultative Parties meet regularly to discharge their custodial obligations under the Antarctic Treaty. *See supra* notes 67-74 and accompanying text.

297. Whelan, *supra* note 295 (quoting Cassandra Phillips, Antarctic Spokeswomen for the World Wide Fund for Nature).

Rocard opened the Meeting by reiterating France's position that Antarctica should be declared a world park.<sup>298</sup> Representatives of thirty-nine states and the members of several environmental groups, including Greenpeace, the World Wide Fund for Nature International, the ASOC, and the Cousteau Foundation attended the Paris Meeting.<sup>299</sup>

Both the United States and Britain announced their opposition at the Paris Meeting to the French and Australian proposal to declare Antarctica a world park.<sup>300</sup> Tucker Scully, who negotiated for the United States at the Meeting, reported, "If the [world park] is a device to replace the [Minerals Convention] then no, I don't support it."<sup>301</sup> Britain adopted a more moderate position, saying that the notion of a world park was not incompatible with the Minerals Convention.<sup>302</sup> The *Daily Telegraph* reported that "the British Government view is that the [Antarctic] continent is so vast that it would not be wise to give up the chance of extracting increasingly rare minerals at some future date."<sup>303</sup> John Heap, head of the British delegation, said, "We don't agree with a judgment being made across the board that any minerals activities are necessarily environmentally unsustainable."<sup>304</sup>

The Soviet Union also criticized the "world park" notion at the Paris Meeting. Sergei Karev of the Soviet delegation observed that, "For the moment, there is not strong support [for declaring Antarctica a world park]. The nature reserve might seem the simplest way but in reality it is not so easy. For the moment no-one knows what it means."<sup>305</sup> Karev stressed, however, that affirmative steps must be taken to ensure the protection of the Antarctic environment.<sup>306</sup>

The prospective effect of the disintegration is difficult to predict. The *New York Times* has reported that "the collapse of the agreement . . . is not expected to bring any immediate danger of unbridled commercial mining or oil drilling, but some officials said it weakened the legal structure that protects the continent's environment."<sup>307</sup> The United States Department of State, which believes mineral exploitation is inevitable, is of a similar view, believing that "it is better to have regulated exploita-

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298. Popyk, *supra* note 280.

299. *Id.*

300. Whelan, *supra* note 295; Clover, *supra* note 296.

301. Whelan, *supra* note 295.

302. Clover, *supra* note 296.

303. *Id.*

304. Whelan, *supra* note 295.

305. *Id.*

306. *Id.*

307. Browne, *supra* note 286.

tion than a legal vacuum in which no restraints of any kind are imposed on even the most environmentally hazardous exploitation."<sup>308</sup> Australia does not believe that the demise of the Minerals Convention will lead to anarchy, claiming instead

that the present informal moratorium on mineral and oil prospecting and exploitation could be extended indefinitely. Eventually the moratorium could be superseded by a world declaration affirming Antarctica's status as a wilderness preserve. Anyone who jumped the gun by attempting to extract minerals or oil would be subjected to the full weight of international opprobrium.<sup>309</sup>

Only time will tell whether the view adopted by those who oppose the Minerals Convention is the correct one. As Cousteau himself has said, "All we can do is try to protect the continent for the time being . . . . Who can say what will happen 100 years from now?"<sup>310</sup>

## VI. CONCLUSION

The refusal of two Antarctic Consultative Parties—France and Australia—to sign the Antarctic Minerals Convention destroyed hopes of ratifying the Convention in its present form. The collapse of six years of negotiations has left a significant gap in the Antarctic Treaty System. Neither the Antarctic Treaty nor any of its constituent agreements contain any rules governing mineral resources. There is presently an informal moratorium on all minerals activity in Antarctica. This ban provides only temporary, and perhaps inadequate, protection for the Antarctic environment. A more formal agreement, one that sets forth stringent standards regarding Antarctic minerals activity, is necessary. If minerals activity is left unregulated, the Antarctic environment may be placed in jeopardy. Given the depth of feeling this issue has engendered, failure to resolve the minerals issue may well place the entire Antarctic Treaty System in jeopardy as well.

Certainly none of the Consultative Parties wants to disrupt the Antarctic environment or risk the collapse of the entire system of legal order in Antarctica. Their disagreement centers on how best to prevent such an occurrence. Does the Minerals Convention offer the most pragmatic means for safeguarding the Antarctic environment? Would an out-

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308. *Id.*

309. *Id.*

310. *Id.*; see also Shapley, *Polar Thinking on the Antarctic*, N.Y. Times, Oct. 17, 1989, at A23, col. 2 (arguing that the Minerals Convention debate diverts attention from the more important Antarctic issues, namely research).

right ban on mining indeed be possible, or is it an "unachievable utopia"?<sup>311</sup>

The Consultative Parties now face further negotiations. The Minerals Convention likely will play an important role in future discussions on minerals activity. Whether the parties will agree to an outright ban on mining in Antarctica is uncertain. A possible compromise may be a substantial revision of the Minerals Convention. The Consultative Parties could clear up the existing ambiguities in the Convention, put more stringent regulations on mineral prospecting activities, and give more enforcement power to the Convention's institutions. All things considered, a modified Minerals Convention is the most feasible solution. A ban on minerals activities would be difficult to enforce. And if mining will occur in any event, it would be better to have mining standards in place within the Antarctic System rather than to allow such minerals activities to occur surreptitiously. If exploration is to occur, an effective minerals regime will be the best way "to keep the bastards honest."<sup>312</sup>

*Deborah Cook Waller\**

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311. *New Zealand Criticizes Australia Over Antarctic Issue*, Xinhau (New China) News Service, July 10, 1989 (LEXIS, NEXIS Library, WIRES File).

312. Woodward, *supra* note 268 (statement of Australian Foreign Minister Gareth Evans).

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