

1-1-1993

## International Law and the Preservation of Species: An Analysis of the Convention on Biological Diversity Signed at the Rio Earth Summit in 1992

Dr. Rane K.L. Panjabi

Follow this and additional works at: <http://elibrary.law.psu.edu/psilr>



Part of the [Environmental Law Commons](#), and the [International Law Commons](#)

---

### Recommended Citation

Panjabi, Dr. Rane K.L. (1993) "International Law and the Preservation of Species: An Analysis of the Convention on Biological Diversity Signed at the Rio Earth Summit in 1992," *Penn State International Law Review*: Vol. 11: No. 2, Article 2.  
Available at: <http://elibrary.law.psu.edu/psilr/vol11/iss2/2>

This Article is brought to you for free and open access by Penn State Law eLibrary. It has been accepted for inclusion in Penn State International Law Review by an authorized administrator of Penn State Law eLibrary. For more information, please contact [ram6023@psu.edu](mailto:ram6023@psu.edu).

# International Law and the Preservation of Species: An Analysis of the Convention on Biological Diversity Signed at the Rio Earth Summit in 1992

Dr. Ranee Khooshie Lal Panjabi\*

At the very moment when this Earth — our only home — appears to be dying, thousands of men, women, and children around the world have rallied to save and preserve this very precious planet which has sustained and nourished the human and innumerable other species for millennia. With the awakening horror of the reality of planetary degradation has come an ethic of human responsibility and human obligation to work quickly to reverse the damage already done and prevent further deterioration of the environment. The cause of global conservation has, in the last few years, become mainstream thinking in many parts of the world. Today, there are few proponents of untrammelled development. Politicians, lawyers, and businessmen espouse the environmental ethic and proclaim a dedication to 'green values' with the fervor of the recently-converted. Environmentalism has acquired the status of a global religion. Those who do promote development at the expense of the environment frequently do so with assurances of their commitment to the enhancement of the quality of life or, in developing nations, with poverty and lack of alternatives as justification. The problem is that, as with all religions, the precepts are more honored than observed. The level of

---

\* L.L.B. (Honours), University of London, England; Associate Professor, Memorial University, Canada.

The author wishes to acknowledge with gratitude the generous help received from His Excellency Ambassador Arthur H. Campeau, Canada's Ambassador for Sustainable Development. Ambassador Campeau was Personal Representative of the Prime Minister of Canada to UNCED and Head of the Canadian Delegation during the negotiations for the Convention on Biological Diversity; the office of Prime Minister Brian Mulroney of Canada; the office of Mr. Jean Charest, Environment Minister of Canada; Dr. Bob Slater, Assistant Deputy Minister, Environment Canada; Ms. Wendy Parkes, Manager of Operations, Biodiversity Convention Office; Mr. Denis Jollette, Senior Advisor to the Ambassador for Environment and Sustainable Development, Government of Canada; Mr. Michel Archambault, Director of Educational Institutions Programme, Canadian International Development Agency; Mr. Howard Mann, Legal Counsel, Environment Canada; Ms. Julie Wagemakers, Publications Officer, International Institute for Sustainable Development; the Secretariat of the United Nations and the External Affairs Ministries of the Governments of the United Kingdom, France, Sweden, the Netherlands, Malaysia and Japan. The views expressed in this article are the author's own.

action rarely matches the level of rhetoric. The ultimate challenge will be to make the leap from verbal commitment to environmental goals to implementation of these ideas.

The ethic of conservation has now become popular and widespread, especially among the young who have demonstrated a commitment to the preservation of ecosystems and life-forms which is encouraging for the future. Their lives which will unfold in the coming century will undoubtedly be affected, for the better, if we act quickly to protect what is left of our environment, for the worse if we fail to act. One of the most important environmental tasks we can all undertake now is to work to protect the other species which share this planet with us. Their preservation is not merely a matter of idealism. It is in our ultimate self-interest to ensure that we do not inadvertently or through sheer human greed destroy these species, large and small, which ultimately sustain our very existence on this planet by forming part of the intricate food chain, by replenishing the soil, clearing the water, feeding us directly and even curing us of our illnesses, while providing us with a vision of the wonder, the beauty and the amazing diversity of forms with which the principle of life can manifest itself. The realization that we human beings are ultimately only an aspect - albeit a significant one - in a vast process of nature has evoked a global determination to save those whose very survival is in our all-too-callous hands. Long before the issue of preserving biological diversity became a subject for governmental negotiation, it had become an area of public concern.

Holding conferences has become a favored method of generating international awareness about significant global problems. The media, non-governmental organizations, community groups, and involved individuals, hope in the collective international setting to increase public awareness and participation in the solution of the particular problem being discussed. When the conferences are sponsored by the United Nations, the world's attention is inevitably attracted to the proceedings. In June 1992, delegates from around the world gathered at Rio de Janeiro, Brazil to attend the largest conference ever held, the United Nations Conference on Environment and Development (UNCED). Millions of people watched on television as their leaders espoused the cause of environmentalism and expressed their dedication to the principles enunciated in the formulations produced by their negotiators. Most massive of all the documents generated by the Rio process was *Agenda 21*, a voluminous blueprint for environmental clean-up of the planet. *The Rio Declaration*,<sup>1</sup> a statement of principles was also adopted by delegates, as was a *Non-le-*

---

1. U.N. Doc., A/CONF.151/5/Rev.1, June 13, 1992.

*gally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests.*<sup>2</sup> To further stress the importance of the Conference, the occasion was used for formal signature of two important international law treaties, the *United Nations Framework Convention on Climate Change*<sup>3</sup> and the *Convention on Biological Diversity*.

This article will attempt a detailed analysis of the Convention on Biological Diversity signed at the Rio Earth Summit in June 1992. Rather than assess the clauses *seriatim*, I have preferred to base my analysis on a consideration of various provisions grouped under topical sub-headings. These separate sections will explore the role of developed and developing nations and discuss the diversity of opinion which emerged at Rio. The emphasis will be on the most significant provisions of the Convention, particularly those that are controversial. Because of length constraints, this article cannot consider every clause of the Treaty. Throughout the article, for the reader's convenience, the clauses of the Convention will be quoted in italics with the number of the article following in brackets. Occasionally, a provision of the Convention may have to be repeated because of its relevance to different topics under consideration. Prior to the detailed analysis, one section of this article will present a brief summary of the Convention. It is important to stress that this article will *not* deal with the history of the negotiating process by which the Treaty was created. Length constraints prevent that issue from being explored here. Rather, the emphasis will be on the Convention as it stands, on its significance and on its strength and weakness and on the opinions expressed by various Heads of Government and State and a number of environmentalists about this Convention. The very controversial position of the Government of the United States under President George Bush will have to be discussed in detail as this is of relevance to any analysis of the Convention. The United States of America refused to sign this Convention. At the time of writing, there has been no change in United States policy despite the strong support for environmental concerns expressed by the Clinton Administration, specifically by Vice-President Al Gore. Hopefully, the article will provide readers with a comprehensive view of what is a very important development in international law, the beginning of a process towards averting species destruction on this planet.

---

2. U.N. Doc., A/CONF.151/6/Rev.1, June 13, 1992.

3. U.N. Doc., A/AC.237/18 (Part II)/Add.1, May 15, 1992.

## I. Biodiversity Defined

According to the Convention on Biological Diversity,

'Biological diversity' means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. (*Article 2*)

More scientifically, Edward O. Wilson, in his recent book, *The Diversity of Life*, proposes the following definition:

The variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species to arrays of genera, families, and still higher taxonomic levels; includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live.<sup>4</sup>

In layman's terms, biodiversity is "the total variety of life on earth,"<sup>5</sup> the web of life on this planet in its multiplicity of expressions, animal, plant and even the minute organisms which inhabit the soil. This is the foundation for all life and its interconnections are so complex and intricate that scientists have not yet penetrated all its mysteries for the scope of the study is immense. "Even the known statistics of bio-diversity are humbling."<sup>6</sup> Some scientists have suggested that there are probably 1.4 million known species or organisms on this planet, "750,000 are insects, 41,000 are vertebrates and 250,000 are plants; the rest correspond to a complex of invertebrates, fungi and micro-organisms."<sup>7</sup> There are no definite statistics on the number of species when those not yet studied are considered. Estimates suggest a figure of 10 million species including plants and animals.<sup>8</sup> The various ant species outnumber bird species.<sup>9</sup> As Cyril de Klemm of the Commission on Environmental Policy, Law and Administration (CEPLA) suggests, "[n]obody even knows the approximate number of living species: 5, 10, 30 million, according to the most recent estimates, out of which less than two million have so far been described."<sup>10</sup> An even higher estimate of 80

---

4. EDWARD O. WILSON, *THE DIVERSITY OF LIFE* 393 (1992).

5. JOHN C. RYAN, *Conserving Biological Diversity*, STATE OF THE WORLD 1992 9 (1992).

6. PAUL HARRISON, *THE THIRD REVOLUTION* 59 (1992).

7. Luiz Fernando Soares de Assis, *A Regional View of Negotiations on Biodiversity*, U.N. Economic Commission for Latin America and the Caribbean — ECLAC, Doc. LC/L.610, 12th February 1991, 6.

8. *Summit To Save the Earth*, TIME, June 1, 1992, at 26 [hereinafter *Summit*].

9. HARRISON, *supra* note 6, at 59.

10. Cyril de Klemm, *The Conservation of Biological Diversity: State Obligations and Citizens Duties*, 19 ENV'T POL'Y AND L. 50 (Apr. 1989).

million species has been proposed.<sup>11</sup>

One of the world's leading authorities on the subject of biodiversity, Edward Wilson stresses that "[b]iodiversity is our most valuable but least appreciated resource."<sup>12</sup> Biodiversity can be affected by a variety of factors "such as climate, number of organisms, topography, physical substratum, time and heredity."<sup>13</sup> The wealth of this resource of biodiversity is not evenly distributed throughout the planet.<sup>14</sup> "The natural ecosystems of forests, savannas, pastures and rangelands, deserts, tundras, rivers, lakes and sea contain most of the Earth's biodiversity. Farmers' fields and gardens are also of great importance as repositories, while gene banks, botanical gardens, zoos and other germplasm repositories make a small but significant contribution."<sup>15</sup> Although a large country like Canada contains approximately 70,000 known species,<sup>16</sup> a much smaller state like Madagascar is home to 150,000 species found in no other part of the world and contains about one quarter of the plant species of Africa.<sup>17</sup> Brazil with only 6.3% of the world's land area enjoys 22% of the planet's flowering plant species.<sup>18</sup> Tropical areas are most blessed with this resource, particularly those regions still covered with forests. Paul Harrison explains why the tropical rainforest is so rich in its diversity of life:

Its leaf litter, ground herbs, shrubs, middle level and canopy offer a five-storey habitat. Each storey has multiple rooms: climbers, stranglers, clinging ferns, orchids, bromeliads and others. Each tree and plant has its personal range of insect lodgers, each insect its own minute parasites. Each storey and room has its distinct vertebrate predators, with different sets for day and night shifts.<sup>19</sup>

There are varied estimates concerning the extent of forest cover still remaining on this planet and the statistics on biodiversity are at times the best "guesstimates" that scientists can produce. "Taken as a whole, dense tropical forests cover an area of 1,200,889,000 hectares. This total, however, represents only 7% of the Earth's surface

---

11. John C. Ryan, *Conserving Biological Diversity*, STATE OF THE WORLD 9 (1992).

12. WILSON, *supra* note 4, at 281.

13. Luiz Fernando Soares de Assis, *A Regional View of Negotiations on Biodiversity*, United Nations Economic Commission for Latin America and the Caribbean — ECLAC, Doc. LC/L.610, Feb. 12, 1991, at 1.

14. Harrison, *supra* note 6, at 59.

15. U.N. Doc., *Agenda 21*, Chapter 15, Conservation of Biological Diversity, Introduction. Also see Nicholas Robinson et al, *Agenda 21 and the UNCED Proceedings*, (New York: Oceana Publications, 1992), Vol. 1, 429-54.

16. Office of the Prime Minister of Canada, *Canada Ratifies Two Historic Environmental Conventions*, Dec. 4, 1992.

17. *Summit*, *supra* note 8.

18. Ryan, *supra* note 11, at 11.

19. HARRISON, *supra* note 6, at 60.

and may contain . . . 90% of its biological diversity.”<sup>20</sup> This accident of nature has significant political implications which will be discussed in some detail later.

The Convention on Biological Diversity distinguishes between biological diversity and biological resources although the two terms are frequently used interchangeably in common parlance. According to the Convention, biological resources include:

*genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity. (Article 2)*

Biodiversity can be categorized by reference to “ecosystem diversity (the range of different interacting systems present in a region, nation or the world); species diversity (the range of species in a given area); and genetic biodiversity (the range of possible heritable characteristics (genes) found in a population or species).<sup>21</sup> The lack of scientific knowledge about both the extensive range of species and interactions between species makes it imperative that biodiversity research be considered a priority in all nations, particularly because of the threat of destruction faced by so many species today.

## II. The Importance of Biodiversity

The significance of the world’s biodiversity resource can never be over-estimated. This vast and largely untapped treasure provides us with sustenance now and holds the possible key to improvement of the quality of life in the future. In providing new sources of food and medicine alone, the realm of biodiversity justifies its continuing existence and preservation. As John Ryan suggests, “The range of products hidden in forests, reefs, and other ecosystems is a powerful argument for their conservation.”<sup>22</sup> At the present time, “humans use less than one-tenth of one percent of all naturally occurring species.”<sup>23</sup> The United Nations estimates that “[o]nly a tiny fraction of species with potential economic importance have been utilized; 20 species supply 90 per cent of the world’s food, and just three (wheat, maize, and rice) provide more than half.”<sup>24</sup> Tropical forests are already yielding a wealth of “new foods, cosmetics, medicines, soaps,

---

20. Luiz Fernando Soares de Assis, *A Regional View of Negotiations on Biodiversity*, U.N. Economic Commission for Latin America and the Caribbean — ECLAC Doc. LC/L.610, Feb. 12, 1991, at 7.

21. Office of the Prime Minister of Canada, *Canada Ratifies Two Historic Environmental Conventions*, Dec. 4, 1992.

22. Ryan, *supra* note 11, at 20.

23. Statement by Mostafa Tolba, Executive Director, U.N. Env’t Programme, second session, Ad Hoc Working Group of Experts on Biological Diversity, Geneva, Feb. 19-23, 1990.

24. *Global Outlook 2000*, (New York: U.N., 1990), 95.

and other products.<sup>25</sup> The World Resources Institute estimates that "Indians dwelling in the Amazon Basin make use of some 1,300 medicinal plants, including antibiotics, narcotics, abortifacients, contraceptives, antidiarrheal agents, fungicides, anesthetics, muscle relaxants, and many others — most of which have not yet been investigated by researchers."<sup>26</sup> As Ben Jackson of the World Development Movement explains, "Half the doctors' prescriptions dispensed by chemists have their origins in wild organisms, worth around \$14 billion in the United States alone."<sup>27</sup> The profits are considerable. "Over 7,000 medical compounds in western pharmacopoeia are derived from plants. Their retail value exceeds \$40 billion a year."<sup>28</sup> A small soil organism from Spain which helps cholesterol is worth \$617 million annually.<sup>29</sup> The most publicized example of a vital medicinal plant is that of the rosy periwinkle, a plant found in Madagascar which, after its discovery proved useful for the treatment of cancer.<sup>30</sup> In a speech made shortly before UNCED, Canadian Prime Minister Brian Mulroney emphasized the significance of this important discovery in saving lives: "20 years ago, one in five children with leukaemia were successfully treated. Today the success rate is four out of five, thanks to a strain of rosy periwinkle found only in Madagascar."<sup>31</sup> The anti-cancer properties of taxol, extracted from the yew tree have been widely publicized.<sup>32</sup> The leaves of a newly-discovered vine from the rain forest of Cameroon contain a chemical which is able to block reproduction of the AIDS virus in a test tube. Leaves of the vine have yielded an alkaloid called Michellamine B during laboratory tests at the National Cancer Institute in Frederick, Maryland."<sup>33</sup>

As delegates were shaping the environmental future of the planet at UNCED, in Canada, an international team of scientists released a report indicating that fish oil could ease symptoms of

---

25. Ryan, *supra* note 11, at 20.

26. Kenton Miller, Walter Reid & Charles Barber, *Deforestation and Species Loss: Responding to the Crisis*, in J.T. MATTHEWS (Ed.), *PRESERVING THE GLOBAL ENVIRONMENT* 97 (1991).

27. BEN JACKSON, *POVERTY AND THE PLANET* 29 (1990).

28. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, third session, Ad Hoc Working Group of Experts on Biological Diversity, Geneva, July 9, 1990.

29. Don McAllister, Senior Biodiversity Advisor, Canadian Centre for Biodiversity, Canadian Museum of Nature, Testimony before House of Commons Standing Committee on Environment, Nov. 23, 1992, Third Session, 34th Parliament, 1991-1992, Issue No. 47, 47:21.

30. *Birds and Bees*, *THE ECONOMIST*, May 30, 1992, at 17.

31. Prime Minister Brian Mulroney of Canada, Address at the Canadian Museum of Civilization, Hull, Quebec, June 1, 1992.

32. Cyril de Klemm, *The Conservation of Biological Diversity: State Obligations and Citizens Duties*, 19 ENVTL. POL'Y & L. 50 (Apr. 1989).

33. *Vine May Hold Cure For AIDS*, *EVENING TELEGRAM* (St. John's, Canada), Apr. 7, 1993, at 38.



rheumatoid arthritis.<sup>34</sup> Vanilla, now so commonly used in cooking, was developed from a biological resource discovered on the lands of indigenous people in Central America.<sup>35</sup> American scientists have found a painkiller 200 times stronger than morphine in the skin of an Ecuadorian frog.<sup>36</sup>

In implementing the process now known as bioremediation, living organisms, bacteria and fungi are squirted on toxic sites to metabolize the contaminants in an attempt to use green technology to clean up hazardous waste.<sup>37</sup> In India, the Ganga Action Plan, formulated in 1986, uses flesh-eating turtles to dispose of the human corpses which are ritualistically thrown into the Ganges, the nation's holy river. These turtle patrols have been given credit for cleaning up the river to the point where bathing in its waters, another ancient Hindu tradition, is once again safe.<sup>38</sup>

The value of the treasure trove of biodiversity is such that it yields benefits and seeming miracles almost daily. Ironically, even as the treasure is being destroyed, its real worth is being revealed. The multiple tasks carried out by different species make life on this planet sustainable. As Cyril de Klemm asserts:

Another important aspect of the value of wild species is the essential role that many of them play within natural ecosystems as pollinators, seed dispersers, predators controlling the proliferation of other species, or decomposers of organic matter. The importance of the mutual services that species provide to one another and the serious disturbance that may result from interruption or impairment of these services is still poorly understood.<sup>39</sup>

De Klemm goes on to point out that "ecosystems themselves also provide mutual services to one another, the continued maintenance of which may be essential to the perpetuation of the ecological balance of entire regions."<sup>40</sup> Despite Canada's developed nation status and the relative prosperity of its people, the Government admits to the vital importance of biodiversity to the nation's economy: "Fishes, forestry and agriculture are directly dependent and many other industrial sectors including the biotechnology industry derive their

---

34. Judy Creighton, *Study Finds Benefits in Fish Oil*, VANCOUVER SUN, June 5, 1992, at A10.

35. *Summit To Save the Earth*, TIME, June 1, 1992.

36. Steve Newman, *Earthweek: A Diary of the Planet*, VANCOUVER SUN, June 6, 1992 at A6.

37. Douglas Powell, *Bugs that Clean House*, GLOBE & MAIL, July 18, 1992, at D8.

38. John Stackhouse, *Corpse-Eating Turtles Help River Clean-up*, GLOBE & MAIL, Sept. 25, 1992, at A9.

39. Cyril de Klemm, *The Conservation of Biological Diversity: State Obligations and Citizens Duties*, 19 ENVTL. POL'Y & L. 51 (Apr. 1989).

40. *Id.*

economic stability from a diversity of biological resources.”<sup>41</sup> Indirectly, biodiversity benefits the “‘ecosystem services’ of climate control, oxygen production, removal of carbon dioxide from the atmosphere, soil generation [and] freshwater supplies.”<sup>42</sup>

For developing nations the dependence on the biodiversity resource is even greater. There is hardly a nation on this planet which does not derive monetary value from its biodiversity and its biological resources. As the United Nations Environment Programme points out, “[b]iological resources produce tangible benefits such as food, medicines, shelter and employment that can be readily translated into monetary terms.”<sup>43</sup> Equally valuable for the economy of any nation is the fact that “[b]iological diversity, as well as being vital for the functioning of ecosystems, does itself also provide valuable economic services, particularly tourism where visitors will pay money to experience the diversity of wildlife.”<sup>44</sup>

As Paul Harrison suggests, “[o]nly when we come to value that diversity as one of our human needs — and one that overrides many others — will we reverse the tide”<sup>45</sup> of destruction and devastation which threatens the survival of this treasure trove. The United Nations Environment Programme concludes that “[t]he dependence of humankind upon biodiversity and biological resources for its long-term well being is not yet fully appreciated by decision makers.”<sup>46</sup>

### III. The Global Problem Affecting Biodiversity

Colman McCarthy, writing in *The Washington Post* comments that “[t]he Earth itself . . . is an ecological war zone in which human beings, when they aren’t killing each other off in wars and homicides, are obsessed with doing in nearly everything else.”<sup>47</sup> There is no doubt that the destruction of biodiversity is one of the most serious environmental problems facing us today. United States Senate Majority Leader, George Mitchell has termed this process an “ecological holocaust”<sup>48</sup> and comments that:

The rate of extinction today compared to the historic norm through geologic time is awesome and terrifying. More species

---

41. Office of the Prime Minister of Canada, *Canada Ratifies Two Historic Environmental Conventions*, Dec. 4, 1992.

42. *Id.*

43. U.N. Env’t Programme, *Guidelines for Country Studies on Biological Diversity*, Version: 2.07, Mar. 22, 1993, at 5.

44. *Id.*

45. Harrison, *supra* note 6, at 72.

46. U.N. Env’t Programme, *Guidelines for Country Studies on Biological Diversity*, Nairobi, Kenya, Mar. 22, 1993, at 6.

47. Colman McCarthy, *Preserving Species- Ours Included*, WASH. POST, Jan. 16, 1993, at A23.

48. GEORGE MITCHELL, *WORLD ON FIRE* 116 (1991).

of the earth's plants and animals may be lost in our lifetime than in the mass extinctions that swept the dinosaurs from the earth sixty-five million years ago.<sup>49</sup>

John Ryan states that "[d]ifficult as it is to accept, mass extinction has already begun"<sup>50</sup> and adds that "biological impoverishment is occurring all over the globe."<sup>51</sup> At risk are all types of environments, lush tropical forests, coral reefs, islands, lakes, swamps and even deserts. Don McAllister, Senior Biodiversity Advisor of the Canadian Centre for Biodiversity explains that because the "hereditary part of diversity is coded in up to 3 billion molecules inside the chromosomes inside every cell," the loss of a species entails "losing up to 3 billion coded bits of information."<sup>52</sup>

The world's tropical forests, appropriately termed "cradles of life,"<sup>53</sup> are the natural habitat for much of this biodiversity. The former Director of the United Nations Environment Program, Mostafa Tolba estimated that though these forests cover only about six percent of the land surface of this planet, they contain over half the world's biodiversity.<sup>54</sup> These areas have probably already lost about 1 million species in the past two decades.<sup>55</sup> Future prospects are grim. "Some scientists say that about 60,000 of the world's 240,000 plant species — and perhaps even higher proportions of vertebrate and insect species — could become extinct in the next three decades unless tropical deforestation is slowed immediately."<sup>56</sup> Mostafa Tolba explained that "[s]pecies richness generally increases in magnitude as we move from the poles to the equator. In one 15 hectare area of Borneo rain forest, for example, approximately 700 species of trees have been identified."<sup>57</sup> James Speth of the World Resources Institute estimates that tropical deforestation increased 50% during the decade of the 1980s,<sup>58</sup> a percentage which averages about 42 million acres annually,<sup>59</sup> equivalent to "an area . . . about the size

---

49. *Id.* at 117.

50. Ryan, *supra* note 5, at 9.

51. *Id.*

52. Don McAllister, Senior Biodiversity Advisor, Canadian Centre for Biodiversity, Canadian Museum of Nature, Testimony before the Canadian House of Commons Standing Committee on Environment, Nov. 23, 1992, Issue No. 47, Third Session, 34th Parliament, 1991-1992, 47:7.

53. MITCHELL, *supra* note 48, at 118.

54. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, second session, Ad Hoc Working Group of Experts on Biological Diversity, Geneva Feb. 19-23, 1990.

55. *Summit*, *supra* note 8, at 29.

56. Scott Stevens et al, *Global Resources and Systems at Risk*, CHRISTIAN SCI. MONITOR, June 2, 1992, at 10-11.

57. Statement by Mostafa K. Tolba, Executive Director, U.N. Env't Programme, to the Fourth Session of the Intergovernmental Negotiating Committee for a Convention on Biological Diversity, Nairobi, Sept. 23, 1991, Speech 199/30.

58. Brad Knickerbocker, *Summit*, CHRISTIAN SCI. MONITOR, June 2, 1992, at 4.

59. Scott Stevens et al, *Global Resources and Systems at Risk*, CHRISTIAN SCI. MONITOR, June 2, 1992, at 10-11.

of the state of Washington . . . lost each year; that's an acre and a half a second."<sup>60</sup> Because tropical forests house so much of this biodiversity, international concern has emphasized this particular aspect of the ecological holocaust. "By an unfortunate quirk of geography, the way in which bio-diversity is distributed works against it. The tropics have the largest share of the earth's biological wealth. But they also have the fastest rates of human population growth, the greatest need to clear forest and drain wetlands, the heaviest pressures on coral reefs."<sup>61</sup> By one estimate, habitat loss for wildlife has reached frightening proportions, 80% or more in countries like Gambia, Liberia, Bangladesh, India and Vietnam, with Africa and Asia registering a two-thirds loss.<sup>62</sup> "In the tropics developing countries as diverse as Chad, Bangladesh, India and Vietnam - wetlands destruction has exceeded 80 to 90 percent."<sup>63</sup>

The losses in developed nations are also significant. A mere 10% of old-growth rain forest survives in the United States of America, largely in the Pacific Northwest region.<sup>64</sup> It is in this area that an intense controversy has raged for the past few years over the fate of the spotted owl, a conflict which has pitted loggers who believe jobs are at stake against environmentalists who want to preserve an endangered species. Commenting on this very vocal debate, Edward Wilson suggests that the proper question to ask is "what else awaits discovery in the old-growth forests of the Pacific Northwest?"<sup>65</sup>

The spotted owl, though better publicized than any other endangered form, is not the only bird facing a threat. Approximately 495 of the 650 species of birds which inhabit or fly through the United States every year are now considered endangered.<sup>66</sup> Globally, three quarters of the bird species are declining in numbers or facing extinction.<sup>67</sup>

The economic consequences of biological destruction are already being felt. The once prolific oyster population of Chesapeake Bay has "fallen by 99% since 1870."<sup>68</sup> These oysters perform a vital function of filtering the Bay's water, a task which once occurred every three days but now takes a year.<sup>69</sup> Overfishing has depleted

---

60. Knickerbocker, *supra* note 58, at 4.

61. Harrison, *supra* note 6, at 60.

62. *Id.* at 68.

63. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, Fourth Session of the Intergovernmental Negotiating Committee for a Convention on Biological Diversity, Nairobi, Sept. 23, 1992, Speech 199/30.

64. Ryan, *supra* note 5, at 11.

65. WILSON, *supra* note 4, at 259.

66. MITCHELL, *supra* note 48, at 117.

67. Ryan, *supra* note 5, at 13.

68. *Id.* at 12-13.

69. *Id.*

fish stocks and created serious economic havoc in several parts of the world, including Eastern Canada. Vice-President Al Gore points out that "since 1950 the total annual catch worldwide has increased by 500 percent and is now assumed to be higher than the replenishment rate in most areas."<sup>70</sup> He concludes that a "growing number of valuable food species are disappearing entirely."<sup>71</sup>

The United Nations Environment Programme (UNEP) has reported that the Earth will lose approximately one quarter of its estimated 30 million species in the next twenty to thirty years, a loss which "will compromise the ability of future generations to meet their needs."<sup>72</sup> Human activity is largely responsible for this situation. The burgeoning world population, now over five and a half billion,<sup>73</sup> is spreading into and taking over the habitat of millions of other species. The monetary orientation of human civilization demands constant development and incessant activity, both of which result in soil degradation, ocean resource depletion and with industrialization, air pollution and even the hole in the delicate ozone layer surrounding this planet. Human beings are at once the problem and also, ironically, its ultimate victims. The unequal distribution of the world's monetary wealth has condemned the larger proportion of its population to a life of poverty which is in stark contrast to the relative comfort and even affluence enjoyed by a minority. Developing nation governments are rushing to take steps to alleviate the misery and economic deprivation engulfing millions of their people but are, in the very process of seeking to give them a better life, destroying forever the prospects for future generations. The building of factories to provide jobs is a positive action but when these factories poison the air, water and land with fumes and toxic waste, the ultimate cost to society outweighs the economic benefits granted to a few employees. This is the basic problem confronting every government on this planet today, a problem more serious in the poorer nations of the developing world but present in every country of the developed world as well. Economic destitution of vast population groups is forcing the hand of governments to take rapid, short-term solutions which frequently sacrifice the environment in favor of development.<sup>74</sup> This is the basic reason why approximately 100 or more species are becom-

---

70. AL GORE, *EARTH IN THE BALANCE* 143 (1992).

71. *Id.*

72. James Rusk, *Summit To Stress Resource Limitations*, *GLOBE & MAIL*, May 20, 1992, at A2.

73. Michael McCarthy, *Population Issue Drops Off Summit Agenda*, *THE TIMES*, Apr. 30, 1992.

74. For a discussion of this subject with respect to forest resources, see generally, R.K.L. Panjabi, *The South and the Earth Summit: the Development/Environment Dichotomy*, 11 *DICK. J. INT'L L.* 77 (1992).

ing extinct each day.<sup>75</sup> Statistics vary because so little is known about the unrecorded species. One estimate suggests that the world loses at least 140 plant and animal species every day.<sup>76</sup> Edward Wilson explains that "even with . . . cautious parameters, selected in a biased manner to draw a maximally optimistic conclusion, the number of species doomed each year is 27,000. Each day it is 74, and each hour 3."<sup>77</sup> George Mitchell eloquently explains the dilemma facing modern nations:

The immediate demands of a swelling population to divert primary production of life into human food—an understandable drive in a world where starvation is all too common—collides directly with the need to maintain the biosphere as a rich and versatile caldron of life.<sup>78</sup>

There are numerous ways in which human activity poses a threat to the existence of biodiversity in any region. The International Union for the Conservation of Nature includes forest clearing, drainage of wetlands for farming, mining and quarrying, overgrazing, logging, urban and industrial development, tourist development and even the introduction of exotic species as reasons to explain the destruction of species.<sup>79</sup> To give only one example, each year Asia loses about half a million hectares of wetlands because of pollution and developmental projects including irrigation and dams.<sup>80</sup> The United Nations Environment Programme suggests even more causes:

Threats may arise from natural hazards; from the indirect consequences of human processes, or externalities such as changes in agricultural commodity prices or the servicing of international debt; and from direct human activities such as shifting agriculture, logging, poaching or pollution.<sup>81</sup>

Clearly, "[w]hat we are dealing with . . . is not a simple process with just one or two causes. It is a massive onslaught firing with all barrels from many directions at once."<sup>82</sup> The conclusion is to recognize that "most threats are created by a potential beneficiary, nor-

---

75. Stevens, et al., *supra* note 56, at 75.

76. SANDRA POSTEL, *Denial in the Decisive Decade*, STATE OF THE WORLD 1992 1 (1992).

77. WILSON, *supra* note 4, citing Brad Knickerbocker, *Ringling a Biodiversity Alarm*, CHRISTIAN SCI. MONITOR, Oct. 22, 1992, at 11.

78. MITCHELL, *supra* note 48, at 12.

79. International Union for the Conservation of Nature, *The IUCN Plant Red Data Book*, (IUCN: Gland, Switzerland, 1978, 13-17; in PAUL HARRISON, *THE THIRD REVOLUTION* 72 (1992).

80. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, second session, Ad Hoc Working Group of Experts on Biological Diversity, Geneva, Feb. 19-23, 1990.

81. U.N. Env't Programme, *Guidelines for Country Studies on Biological Diversity*, Version 2.07, Mar. 22, 1993, at 14.

82. HARRISON, *supra* note 6, at 72.

ally the causal agent of the threat, and that actions for threat relief therefore involve an economic trade-off."<sup>83</sup> It was this issue which was to prove to the greatest challenge to the negotiators of the Biodiversity Convention, not least because the economic trade-offs involved also imply a more fair distribution of the world's wealth with a larger share to the poor nations (collectively labelled the South) from the rich countries (referred to as the North). This issue will be explored in detail later in this analysis.

In a speech to the Global Forum of Spiritual and Parliamentary Leaders, former Soviet President Mikhail Gorbachev emphasized that "[t]he stability of ecosystems, and hence, the quality of the environment, depend on the preservation and maintenance of biological diversity and equilibrium of the biosphere."<sup>84</sup> Gorbachev suggested in that same speech that "the hour of decision-the hour of historic choice-has come, and there is no reasonable alternative for man because he is not predisposed to suicide."<sup>85</sup>

#### IV. Some Aspects of the International Response to the Crisis

It would be simplistic to assume that the degree of concern articulated over this very serious crisis was immediately translated into international action to preserve and protect the earth's biodiversity and biological resources. As with other environmental issues of pressing urgency, this one soon got tangled in a veritable mesh of international politicking, nationalistic posturing, demands for money from those blessed with the preponderance of the resource and vague, reluctant pledges of assistance from the rich nations which now espouse the cause of conservation. Clashes between developed and developing nations, North and South, First World and Third World bedevilled efforts to deal effectively with the global problem. Given this background, the existence of a Treaty is testament to the labour of the numerous negotiators. The implementation of the Convention is another matter altogether. Time alone will tell whether nations will abide by the commitments they have entered into by signing the Convention on Biological Diversity at UNCED in Rio.

Length constraints preclude any detailed history of the process by which this international Convention was formulated. Accordingly, this section will only provide a brief assessment of some aspects of the history of the subject because these are of relevance to the detailed analysis of the Convention which will follow in later sections.

---

83. U.N. Env't Programme, *Guidelines for Country Studies on Biological Diversity*, Version 2.07, Mar. 22, 1993, at 14.

84. Mikhail Gorbachev, Speech, Moscow, Jan. 19, 1990; in GEORGE MITCHELL, *WORLD ON FIRE* 123 (1991).

85. *Id.*

One of the most important issues to consider is the fact that for all its significance and importance to the global environment, biodiversity is subject to political structures established by the dominant species, structures which have bifurcated this planet into a variety of nations, large, medium and small in size. This national structure plagues solutions to every environmental problem facing us but it is an inescapable obstacle. Hence, the conservation of biodiversity has to be determined on the basis of mutual agreement between numerous nations which operate as free agents and are therefore at liberty to preserve or destroy this resource without accountability.

Fortunately, the marvels of modern communications technology have expanded our horizons to such an extent that awareness of the problem is now global. At the level of public opinion, environmental activism has taken off to an extent undreamed of just two decades ago. One reason for this is the tremendous public relations success of the first global environmental conference, the United Nations Conference on the Human Environment held at Stockholm, Sweden in 1972. Although the level of environmental rhetoric exhibited at that gathering far surpassed the extent of implementation, the message of concern and urgency did permeate large sectors of the population. The point was underscored when the World Commission on Environment and Development in 1987 published its Report titled *Our Common Future*<sup>86</sup>. From the many hearings conducted by the Commission, it soon became evident that the people of the world were demanding that their governments implement 'sustainable development', development within a safe environmental framework, development which would provide a better life now but not at the expense of the future survival of human beings and other species. *Our Common Future* also charted a path toward the idea of the inevitable linkage between development and environment by reminding us all that "the 'environment' is where we all live; and 'development' is what we all do in attempting to improve our lot within that abode."<sup>87</sup> At the time of UNCED in Rio in June 1992, two decades after the Stockholm Conference, thousands of people, primed with knowledge of environmental problems both in their own localities and around the world, watched on television as the parade of political leaders pledged their commitment to the ideals of environmentalism. There is no doubt that the environmental awakening of people from urban dwellers to indigenous tribals has been one of the most significant reasons why we now have a Convention on Biological Diversity. Arguably, in environmental matters, populations have propelled their

---

86. See generally, The World Commission on Environment and Development, *OUR COMMON FUTURE* (1989).

87. *Id.* at xi.



governments into commitment and even at times, action.

The problem is that all too often dedication to an environmental ethic is governed by the degree of self-interest involved. It is relatively easy to espouse environmentalism at someone else's expense. As the American spotted owl controversy proves, saving species is all well and good provided one's own job is not in jeopardy. Governments are often pulled in different directions by various interest groups, all vigorously propounding or attacking the particular environmental issue at stake, depending on the priorities of the group. Extrapolate this situation to the much larger international stage and some idea of the complexity can be perceived. As the United Nations is not a world government and has no sovereign power, the formulation of any agreements which involve implementation at the national level can be a real challenge. Given the vast scope of this subject of biodiversity and the enormous attention it has received, one cannot, in an article of this length, do much more than provide a flavor of the historic significance of the earlier attempts to deal with the crisis, with emphasis on the few years preceding UNCED. This section does not, therefore, attempt to provide a comprehensive history of the subject.

The United Nations Conference on the Human Environment which convened in Stockholm in 1972 adopted a Declaration of principles relevant to a number of aspects of the environmental agenda. Principle 4 of that Declaration states:

Man has a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore receive importance in planning for economic development.<sup>88</sup>

The fact that burgeoning human population was imperilling the existence of other life forms was clearly realized and the danger of extinction appreciated. The point was again emphasized in the Charter for Nature which the United Nations General Assembly adopted in 1982. Principle 2 of that important declaration specifies that:

The genetic viability of the Earth shall not be compromised; the population levels of all life forms, wild and domesticated, must be at least sufficient for their survival, and to this end, necessary habitat shall be safeguarded.<sup>89</sup>

---

88. U.N. Doc. Declaration of the U.N. Conference on the Human Environment, A/CONF.48/14, June 16, 1972.

89. U.N. Doc., Charter for Nature, 1982, in Cyril de Klemm, *The Conservation of Biological Diversity: State Obligations and Citizens Duties*, 19 ENVTL. POL'Y & L. 52-53 (Apr. 1989).

These principles form the foundation on which the Convention on Biological Diversity of 1992 is built. That it took two decades to translate the non-binding obligations of these earlier declarations into the legally binding articles of an international Convention testifies both to the complexity of the subject of biodiversity and to the many political and economic issues which have inevitably become entangled with it. One can only agree with Cyril de Klemm, who, commenting on the duty of conservation undertaken by States, believes that "[i]nternational conventions . . . contain binding conservation obligations entailing limitation of the sovereign rights of States over their natural resources. The fact that these limitations have been accepted voluntarily and without any counter-part, for the common good, is a concrete manifestation of the present consensus."<sup>90</sup>

Consensus on the significance of the problem generated a plethora of national and regional measures to raise global awareness, to conserve biodiversity and preserve endangered ecosystems. Biodiversity fits into so many categories of environmental concern that it is accommodated in a bewildering variety of conservation measures undertaken by governments and within specific regions. The flurry of regional and international activity has produced many instruments and action plans such as the Protocol for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Protocol of 1989 to the Cartagena Convention).<sup>91</sup> One might also mention the World Conservation Strategy, the Global Network of Biosphere Reserves,<sup>92</sup> the Keystone Center's International Dialogues on Plant Genetic Resources and the International Undertaking on Plant Genetic Resources sponsored by the United Nations Food and Agriculture Organization (FAO).<sup>93</sup>

Because the loss of biological diversity is the ultimate consequence of all types of man-made pollution and human development, inevitably, nations have sought to tackle specific aspects of this crisis. However, not until UNCED in 1992 and the signing of the Convention on Biological Diversity has there been an attempt to create an international treaty which embraces almost the entire spectrum of the problem and focuses on the specific threat of extinction of species. Among the more prominent earlier international instruments

---

90. Cyril de Klemm, *The Conservation of Biological Diversity: State Obligations and Citizens Duties*, 19 ENVTL. POL'Y & L. 53 (Apr. 1989).

91. For text see *Cartagena Convention*, 19 ENVTL. POL'Y & LAW 224 (Dec. 1989).

92. Statement by Mostafa Tolba, Executive Director, United Nations Environment Programme, second session Ad Hoc Working Group of Experts on Biological Diversity, Geneva Feb. 19-23, 1990.

93. Paul Raeburn, *The Convention on Biological Diversity: Landmark Earth Summit Pact Opens Uncertain New Era For Use and Exchange of Genetic Resources*, 8 DIVERSITY 6 (1992).

which tried to deal with some facets of the problem, one can, in an article of this length only mention the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), adopted in 1973. This agreement tries to protect endangered species by restricting commerce in products made from them. Where the particular species faces extinction, the Convention prohibits all trade. In 1990, for example, a ban was placed on the ivory trade largely to protect the world's rapidly dwindling elephant population.<sup>94</sup> A month before UNCED convened, the International Tropical Timber Council, meeting in Yaounde, Cameroon decided to encourage governments to coordinate activities concerning tropical timber listings in the CITES Appendices with the International Tropical Timber Secretariat.<sup>95</sup>

In March 1991, delegates representing member states of the United Nations Economic Commission for Latin America and the Caribbean adopted the Tlatelolco Platform on Environment and Development which emphasizes the importance of conservation to that region "in order to protect its biological diversity, which constitutes a fundamental and sovereign part of the national patrimony of these countries endowed with such diversity."<sup>96</sup>

The European nations have been very active in the field of wildlife conservation through implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (commonly referred to as the Berne Convention).<sup>97</sup> Extension of the Convention to Eastern Europe and to some African nations was accepted in 1990 by European Environment Ministers representing member countries of the Council of Europe.<sup>98</sup>

Additional activity has been generated by conferences such as the one called by Al Gore in 1990 when he was a United States Senator. This international conference on the environment attracted delegates from 42 countries and met in Washington from 29th April to 2nd May 1990.<sup>99</sup> The parliamentarians attending this important conference pledged themselves to pursue sustainable development and with respect to biodiversity committed themselves to complete the Convention on Biological Diversity by 1992, preserve primary

---

94. Hilary F. French, *Strengthening Global Governance*, STATE OF THE WORLD 1992 156 (1992).

95. *ITTO: Cooperation With CITES*, 22 ENVTL. POL'Y & L. 363C (Dec. 1992).

96. *See Tlatelolco Platform on Environment and Development*, 21 ENVTL. POL'Y & L. 182 (July 1991).

97. *See generally*, Cyrille de Klemm, *Berne Convention*, 20 ENVTL. POL'Y & L. 25 (Mar. 1990).

98. *Council of Europe: Strategy and Action Plan Adopted*, 20 ENVTL. POL'Y & L. 215-16 (1990).

99. *International Parliamentarians Discuss Environment*, 20 ENVTL. POL'Y & L. 87 (June 1990) [hereinafter *International Parliamentarians*].

forests from further destruction by the year 2000, undertake national inventories of the biological resource and prohibit trade in endangered species.<sup>100</sup> One of the most progressive ideas adopted by the Conference was the proposal that "[n]ational law should require accountability by all institutions whose actions affect the survival of species and of habitats, including the effect of legislation itself upon the environment."<sup>101</sup> These decisions were not binding on the states which were represented at the Conference. However, they do "provide a consensus basis for action for legislators in their own countries."<sup>102</sup>

In March 1992, just three months prior to the convening of UNCED, a conference on Environment and Law in Asia drew delegates from more than 20 countries to Kathmandu, Nepal. Delegates adopted the Kathmandu Declaration on Environment and Law which included support for strong international agreements to preserve biodiversity.<sup>103</sup>

The educative process was also stressed as with the project to develop expertise in biodiversity conservation and international law undertaken by the Environmental Law Centre. A seminar held in November 1991 in Harare, Zimbabwe explored various aspects of biodiversity with emphasis on the role of developing countries.<sup>104</sup> Involvement in the cause of biodiversity was not limited to scientists and international lawyers. The United Nations Centre on Transnational Corporations (UNCTC) developed criteria for sustainable development management by large industrial enterprises, including the suggestion that "[c]orporate practices must not threaten species diversity . . . executives should propose ways to conserve affected botanical and wildlife resources . . . . Diversity is essential for maintaining the planet's ecological balance."<sup>105</sup> As transnational corporations handle "one quarter of the world's productive assets; 70 per cent of the products in international trade; 80 per cent of the world's land cultivated for export crops, and the major share of the world's technological innovations,"<sup>106</sup> their impact on the survival of biodiversity cannot be over-emphasized. However UNCTC also reported that while some transnational corporations engaged in some environmentally sound activities, much work remained to be done to

---

100. *Id.* at 88.

101. Text of Decisions of the Interparliamentary Conference on the Global Environment, Washington D.C. Apr. 29 - May 2, 1992, 20 ENVTL. POL'Y & L. 113 (June 1990).

102. *International Parliamentarians*, *supra* note 99, at 88.

103. *Asia: Environment and Law*, 22 ENVTL. POL'Y & L. 106 (Apr. 1992).

104. *IUCN/ELC: Biological Diversity*, 22 ENVTL. POL'Y & L. 26 (Feb. 1992).

105. *UNCTC: Criteria for Sustainable Development Management*, 20 ENVTL. POL'Y & L. 187 (Sept.-Oct. 1990).

106. *Transnational Corporations and Sustainable Development*, 20 ENVTL. POL'Y & L. 139 (Sept.-Oct. 1990).

persuade these companies to integrate environmental concerns into their corporate planning.<sup>107</sup>

Meanwhile, work was proceeding apace on the creation of an international legally binding convention which would be signed at the Earth Summit in Rio in 1992. The Governing Council of the United Nations Environment Programme initiated the creation of a working group of experts to "investigate the desirability and possible form of an umbrella convention to rationalize current activities in" the field of biodiversity.<sup>108</sup> The first meeting of this group was convened in Geneva, Switzerland between 16th and 18th November 1988.<sup>109</sup> The challenge was to bring some order to the multiplicity of national and regional measures in existence.

The Working Group noted that there were a number of international agreements in this field that dealt with different aspects of a common purpose, i.e., conservation of the diversity of ecosystems, species, and genes. It was also noted that each convention had its particular purpose and that the Parties to each convention differed. The Working Group concluded that amendments to existing conventions for purposes of achieving 'rationalization' or consolidation of resources would be difficult and time-consuming.<sup>110</sup>

The conclusions of this group would be of crucial significance to the Convention on Biological Diversity. Some of these proposals would eventually become formulations in the Treaty itself and the very existence of the international legally-binding Convention is probably due to the group's agreement that

even the totality of the existing conventions could not cover the full range of biological diversity. Action was therefore needed now either through a convention or through other measures. Most of the experts favoured the elaboration of a binding instrument, not excluding at the same time other measures for the conservation of biological diversity.<sup>111</sup>

Negotiations for the international agreement were intense and protracted as is usual in such situations particularly when the instrument under discussion will be legally binding. The final Conference for the adoption of the agreed text of the Convention convened in Kenya on 22nd May 1992, days before the formal signing ceremony was to take place at Rio.<sup>112</sup> This final conference was preceded by a

---

107. *UNCTC: Corporate Environmental Management Practices*, 22 ENVTL. POL'Y & L. 15 (Feb. 1992).

108. U.N. Env't Programme Doc. UNEP/Bio.Div.1/3, Nov. 9, 1989 at 1.

109. *Working Group on Biological Diversity*, 19 ENVTL. POL'Y & L. 5 (Mar. 1989).

110. U.N. Env't Programme Doc., *supra* note 108, at 3.

111. U.N. Env't Programme Doc., *supra* note 108, at 5.

112. U.N. Env't Programme, *Nairobi Final Act*, Conference for the Adoption of the

number of meetings of technical experts and several negotiating sessions held between November 1988 and May 1992.<sup>113</sup>

Dr. Mostafa Tolba, then Executive Director of the United Nations Environment Programme, continued to encourage and promote the process which eventually led to the adoption of an agreed text. He expressed his belief that "[t]he process of preparing a new legal instrument must be extensive and open to all Governments"<sup>114</sup> and suggested that "[w]ide-ranging consultations will help to develop the proposed framework convention, serve educational and promotional purposes, and stimulate active support from the countries that participate in the negotiations."<sup>115</sup> Additional support was provided to the process by the Preparatory Committee for UNCED.<sup>116</sup> The hope was that "the political momentum of UNCED might help generate rapid signature" of the Convention.<sup>117</sup> It must be emphasized that the negotiations for the Convention were complementary to the UNCED process and the organization of the Earth Summit in Rio. This point was stressed by Maurice Strong, Secretary-General of UNCED, who also recognized that "biological diversity, which was central to a variety of concerns, was one of the most sensitive and difficult issues before UNCED."<sup>118</sup> However, despite all the positive prompting in favor of a Convention, the process was slow and tortuous. As Dr. Tolba reminded delegates to the February-March 1991 meeting of Legal and Technical Experts on Biological Diversity, in the four years since the United Nations Environment Programme had called for the formulation of an international convention, over one million species had become extinct.<sup>119</sup>

Clearly, there is a tremendous amount of global concern over the biodiversity crisis, concern which has resulted in national, regional, bilateral and multilateral measures to conserve this precious resource. Although, as seen above, there has been a multiplicity of actions, the efforts have been piece meal and not comprehensive. It was time to coordinate the universal enthusiasm into an international agreement which would focus the attention of governments, lawyers, environmentalists and the general public on the need to save species from extinction. Responding to the pressures imposed on them, dele-

---

Agreed Text of the Convention on Biological Diversity, Nairobi, Kenya, May 22, 1992.

113. *Id.* at 3.

114. U.N. Env't Programme Doc. UNEP/Bio.Div.2, Dec. 21, 1989. Note by the Executive Director, 4.

115. *Id.* at 4.

116. *Preparatory Committee for the UN Conference on Environment and Development*, ENVTL. POL'Y & L., Sept.-Oct. 1990, at 132.

117. *UNEP: Preparations for 1992*, 20 ENVTL. POL'Y & L. 126 (Sept.-Oct. 1990).

118. U.N. Env't Programme Doc. UNEP/Bio.Div/N5-INC.3/4, Dec. 4, 1991, III, Second Plenary Meeting, 5.

119. *INC Biological Diversity Convention: No Progress*, 21 ENVTL. POL'Y & L. 48 (May 1991).

gates adopted the final text of the Convention on 22nd May 1992, just days before UNCED's formal opening on Wednesday 3rd June.<sup>120</sup>

#### V. Summary of the Convention on Biological Diversity

The principal objectives of the Convention are to create a system for equitable sharing of the benefits of biological resources; to conserve biological diversity and to utilize this resource in a manner which conforms to the concept of sustainable development. It sets forth both principles and specific actions to be undertaken by signatory nations and addresses the crucial issues of funding, technology transfer and other forms of assistance to be allocated by the developed nations to the developing countries.

The rather lengthy Preamble affirms that *the conservation of biological diversity is a common concern of humankind*; reaffirms that *[S]tates have sovereign rights over their own biological resources* but insists that *states are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner*.

The Convention links the reduction of biological diversity to human activity (Preamble), emphasizes the need for further research (Preamble) and adopts the precautionary principle: *where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat* (Preamble). In line with other formulations adopted at UNCED, this Convention refers to the vital role of women in conservation (Preamble) and the dependence of indigenous communities (Preamble). It also acknowledges the needs of developing countries, particularly those frequently classified as least developed (Preamble). It acknowledges that *economic and social development and poverty eradication are the first and overriding priorities of developing countries* (Preamble).

The Parties to the Convention undertake to perform a number of duties. These involve the development of national strategies for sustainable use of biodiversity (Article 6(a)); the integration of conservation into relevant sectoral programmes (Article 6(b)); the identification of components of biodiversity (Article 7(a)) and of processes and activities which may have an adverse impact (Article 7(c)); the monitoring of components (Article 7(b)) and of the effects of possibly adverse activities (Article 7(c)) and the organization of data (Article 7(d)). Contracting Parties pledge to promote research and training *for the identification, conservation and sustainable use*

---

120. UNCED Highlights, EARTH SUMMIT BULL. 1 (June 1, 1992).

of *biological diversity* (Articles 12(a), 12(b) and 12(c)). Parties agree to promote international scientific cooperation (Article 18.1). Public awareness is also to be encouraged (Article 13(b)).

The Convention extends the responsibilities of signatory nations beyond their borders as for example when certain activities are likely to have an adverse impact on a neighboring state. Transboundary obligations include notification and exchange of information (Article 14.1(c)) as well as action to prevent or minimize the danger to another state of any such activity (Article 14.1(d)). The attendant issues of liability and redress are left for examination by the Conference of the Parties (Article 14.2).

The Convention encourages conservation of biodiversity within its natural habitat, referred to as in-situ conservation. There are detailed provisions concerning the establishment of protected areas (Article 8(a)). Measures are required for the *protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings* (Article 8(d)). The Convention emphasizes the need for national legislation and regulation (Article 8(k)). Ex-situ conservation is also considered important with provision for the establishment of research facilities (Article 9(b)).

Contracting Parties pledge, as far as possible, to *[i]ntegrate consideration of the conservation and sustainable use of biological resources into national decision-making* (Article 10(a)) and to encourage cooperation between the public and private sectors to promote sustainable use of biodiversity (Article 10(e)).

In dealing with the rather controversial issue of access to genetic resources, the Convention firmly concedes to the nationalistic agenda of the developing nations and acknowledges that *the authority to determine access to genetic resources rests with the national governments and is subject to national legislation*. (Article 15.1). However, Contracting Parties cannot restrict access in ways that run counter to the objectives of the Convention (Article 15.2). *Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources* (Article 15.5) and the Convention, in a very significant clause specifies that *[e]ach Contracting Party shall take legislative, administrative or policy measures. . . with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources* (Article 15.7).

Technology transfer and access to biotechnology for developing nations are among the most controversial elements of this Convention. The needs of the South are predominant in this section of the Convention. Contracting Parties undertake to *facilitate access for*



*and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biological diversity* (Article 16.1). Such transfer is to be provided on *fair and most favourable terms, including on concessional and preferential terms where mutually agreed* (Article 16.2). With respect to the issue of patent rights — one of the most serious concerns of the United States of America — the Convention acknowledges that where the technology is subject to intellectual property rights *such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights* (Article 16.2). However, the Convention asks Contracting Parties to invoke legislative and administrative policy to provide technology, on mutually agreed terms, even where patent protection exists (Article 16.3). Most significant of all, Parties are to cooperate, *subject to national legislation and international law in order to ensure that such [intellectual property] rights are supportive of and do not run counter to the objectives of the Convention* (Article 16.5). This issue will be discussed in detail in the section dealing with the position of the United States.

Developing countries are to be encouraged to participate in biotechnological research (Article 19.1) and are to be given *advance priority access on a fair and equitable basis . . . to the results and benefits arising from biotechnologies . . . on mutually agreed terms* (Article 19.2). The issue of safe handling of living modified organisms is left to a future protocol (Article 19.3).

Contracting Parties undertake to provide financial resources in accordance with their capabilities (Article 20.1), with developed nations providing *new and additional financial resources* to developing countries to enable the latter to fulfil the objectives of the Convention (Article 20.2). This obligation is made voluntary for the countries in transition (Article 20.2), a reference to the former Soviet states and the countries of Eastern Europe because their economies are in transition from the communist to the capitalist system. With emphasis on *adequacy, predictability and timely flow of funds* (Article 20.2), the Convention also makes provision for bilateral, regional and multilateral financial aid (Article 20.3). Participation by developing countries is conditional on the availability of adequate funding (Article 20.4). The significance of this provision is such that it is quoted in full now and will be discussed in detail later.

*The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully*

*into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties.* (Article 20.4)

The Convention provides for a financial mechanism, functioning under the authority and guidance of and accountable to the Conference of the Parties (Article 21.1), operating within a *democratic and transparent system of governance* (Article 21.1). On an interim basis, following restructuring, the Global Environment Facility of the United Nations Development Programme, the United Nations Environment Programme and the International Bank for Reconstruction and Development has been designated the financial mechanism for this Convention (Article 39).

The Conference of Parties will convene no later than one year after the Convention enters into force (Article 23.1), which can only occur 90 days after 30 states have ratified the Convention (Article 36.1). The Conference of Parties is assigned various duties including the task of reviewing implementation of the Convention (Article 23.4), adopting protocols (Article 23.4(c)) and amendments (Article 23.4(d)). The Conference of Parties can, more generally, *[c]onsider and undertake any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in its operation* (Article 23.4(i)).

The Convention also establishes a Secretariat to perform various administrative functions (Article 24) and a Subsidiary Body on Scientific, Technical and Technological Advice (Article 25). The dispute settlement mechanism provides for negotiation, mediation, conciliation (detailed in Annex II, Part 2), arbitration (detailed in Annex II, Part 1), and submission of the problem to the International Court of Justice (Article 27). Amendments to either the main text or to any subsequent Protocols will be by consensus or, failing that, by a two-thirds majority vote of the Parties to the instrument in question present and voting (Article 29). No reservations may be made to this Convention (Article 37).

## VI. The Controversial Role of the Government of the United States of America

### A. *The United States and the Rio Process*

The role of the United States is pivotal in any analysis of the Convention on Biological Diversity. An attempt will be made in this section to introduce the subject and explore some of its facets. However, the question of the American position will also be discussed when particular clauses of the treaty are being analyzed. The controversial attitude of the United States to the Biodiversity Convention is

relevant to many aspects of this study and will be explored in considerable detail. As everyone knows, the President of the United States at the time UNCED convened in Rio was George Bush.

Much to the dismay of environmentalists both in the United States and throughout the world, the Government of President George Bush turned this nation into the bete noire of the Rio Summit. Through much of the Rio process which included negotiation leading to the Rio Declaration, Agenda 21, the Framework Convention on Climate Change and the Convention on Biological Diversity, the United States, the world's only remaining super-power adopted a stance which insisted on the primacy of its own national interests at the expense of the universalist solutions which were proposed by environmentalists and numerous other nations. This position earned the United States government an enormous amount of opprobrium both at home and abroad, discredit which made the Summit attendance of George Bush a public relations disaster and odium which may have cost him votes in the 1992 presidential election. That George Bush began his presidency with an agenda to become known as the environmental president<sup>121</sup> makes this turn-about all the more puzzling. After all, President Bush had said that "[e]nvironmental problems are global, and every nation must help in solving them."<sup>122</sup> Doubtless, scholars and academics will debate this inconsistency in his words and actions for years to come. Here, suffice it to say that the United States stood firmly against the development-oriented agenda the South proposed for the Rio Declaration and refused to agree to firm timetables to deal with the problem of global warming tackled by the Climate Change Convention. Indeed, President Bush refused to attend the Earth Summit in Brazil until other nations gave in and agreed to weaken the Climate Change Convention.<sup>123</sup> In an Editorial, the *Vancouver Sun* was critical of the fact that President George Bush "predicated his presence in Rio on his ability to control the agenda."<sup>124</sup> President Bush told a meeting of business executives that "while he supported international cooperation to protect the environment, he would not sign any agreement that could curb long-term US economic growth."<sup>125</sup> President Bush was also very cautious in pledging funding for environmental projects in developing nations and, most serious of all, decisively rejected and re-

---

121. John Dillin, *Presidential Candidates Spar Over US Environmental Issues*, CHRISTIAN SCI. MONITOR, Apr. 28, 1992, at 1.

122. *Rio Balancing Act*, CHRISTIAN SCI. MONITOR, May 19, 1992, at 20.

123. *Bush Threatens Boycott of Earth Summit in Brazil*, GLOBE & MAIL, Mar. 30, 1992, at A8 [hereinafter *Bush Threatens*].

124. *Chance at Rio*, VANCOUVER SUN, June 2, 1992, at A12.

125. *Bush Undecided About 'Earth Summit'*, CHRISTIAN SCI. MONITOR, Apr. 23, 1992, at 8 [hereinafter *Bush Undecided*].

fused to sign the Convention on Biological Diversity.

These actions prompted Christopher Young of Southam News to comment critically that

Bush proceeds to turn himself into a world-class villain by aiming to torpedo the Earth Summit, an attempt to address environmental dangers threatening the entire world, a motherhood issue if ever there was one. The politician who would refuse to sign up in this cause, must harbor a political death wish.<sup>126</sup>

Because the United States is such an important country politically, economically and militarily, its actions at Rio were publicized throughout the world and there are few who doubt that the cause of environmentalism was dealt a serious blow by the approach taken by a nation which could have made it self environmental leader of the new world order. *Veja*, a Brazilian weekly declared that "Bush comes to Rio as Earth Summit enemy."<sup>127</sup> Bill Walker of Greenpeace accused the United States of "blocking progress. They are trying to shape the summit agenda so that it reflects the United States' agenda, which has been to resist efforts to save the environment on a number of fronts."<sup>128</sup> As the United States spends more than any other nation on environmental cleanup and improvement annually (\$120 billion)<sup>129</sup> and a reported \$800 billion between 1982 and 1992,<sup>130</sup> it might quite easily have assumed a leadership role during the Earth Summit. That it rejected so significant an opportunity and seriously damaged the Convention on Biological Diversity by not signing it have to be explored by reference to both internal political and economic considerations.

First, if one assumes that "the occupant of the White House sets the tone for environmental protection"<sup>131</sup> both in the United States and to some extent globally, then one can only conclude that President Bush and his entourage in the White House calculated that environmentalism was a risky cause to propound in an election year. The Republican reticence about environmental issues could be perceived as a reaction to a recessionary economy and to a calculation that the American voter would insist on jobs rather than ecological reform. Accordingly, it was inevitable, though unfortunate, that American officials kept insisting that "the American life-style is not

---

126. Christopher Young, *Bush Unable to Lead Either U.S. or World*, EDMONTON J., June 12, 1992, at A17.

127. James Brooke, *U.S. Has a Starring Role At Rio Summit as Villain*, N.Y. TIMES, June 2, 1992, at A10.

128. *Bush Threatens*, *supra* note 123, at A8.

129. Amy Kaslow, CHRISTIAN SCI. MONITOR, June 3, 1992, at 2.

130. Martin Fletcher, *Bush Team is Split in Rio Treaty Battle*, THE TIMES (London), June 6, 1992, at 1.

131. *The Environment*, CHRISTIAN SCI. MONITOR, Sept. 22, 1992, at 20.

up for negotiation."<sup>132</sup> This unfortunate remark was to be thrown back at American delegates and echoed and re-echoed in the world's media throughout the Earth Summit.

A research team at the University of San Paulo concluded that the globalization of the American lifestyle with its large homes, numerous appliances and two or three cars per family would "be impossible in terms of the energy required to sustain it."<sup>133</sup> From the perspective of environmental conservation, the statistics on this lifestyle are frightening. The United States population, a mere 5% of world population, manages to consume 25 percent of global energy and emits 22 percent of its carbon dioxide annually.<sup>134</sup> "One-fifth of American households now own three or more vehicles and 90 percent of new cars have air conditioning."<sup>135</sup> In 1987 Americans discarded 3.4 million tons of appliances and statistics for other refuse — including clothing, newspapers and yard wastes — amounted to 1429 pounds for every adult in the United States.<sup>136</sup> The American lifestyle is envied in much of the world largely because it encourages upward mobility regardless of origin, acquisition of wealth and its unrestricted consumption. Unfortunately, this way of life is contrary to the concept of sustainable development, is very costly to the American and global environment and would, if emulated around the world, probably result in the environmental destruction of this planet and all its species, including human beings.

To some leaders of poor countries in the developing world, attempting to satisfy the consumer cravings of their vast populations and yet protect the global environment, the American emphasis on the sanctity and non-negotiability of this lifestyle appeared to be the worst form of hypocrisy. According to the United Nations, "the richest 20 percent of the world's population uses 83 percent of its output."<sup>137</sup> The Prime Minister of Malaysia, Dr. Mahathir Bin Mohamad told delegates at UNCED that "if we begin by saying that our life-style is sacred and not for negotiation then it would be meaningless to talk of development and the environment."<sup>138</sup> He continued to explain that as the 25 percent of the world population — the rich countries — consume 85 percent of its wealth and produce 90 percent of its waste, a reduction by 25% in this consump-

---

132. Andrea Dorfman et al, *Summit to Save the Earth*, TIME, June 1, 1992, at 32.

133. David Holmstrom, *Is US Style of Consumption Best for a Wanting World?* CHRISTIAN SCI. MONITOR, April 30, 1992, at 7.

134. Philip Elmer-Dewitt, *Rich vs. Poor*, TIME, June 1, 1992, at 22.

135. David Holmstrom, *Is US Style of Consumption Best for a Wanting World?* CHRISTIAN SCI. MONITOR, Apr. 30, 1992, at 7.

136. *Id.*

137. Rusk, *supra* note 72.

138. Statement by Dr. Mahathir Bin Mohamad, Prime Minister of Malaysia, UNCED, Rio, June 13, 1992.

tion would reduce global pollution by 22.5 percent.<sup>139</sup> The American stand at Rio was perceived as an aggressive assertion of self-interest in a forum where nations were expected to subsume their national agendas for a larger ethic of environmental benefit for the whole world. As the Editor of the *Vancouver Sun* suggested, "the fate of all cannot be mortgaged for the comfort of some."<sup>140</sup>

Cynics suggested that the priority in George Bush's mind was the election, not his status as potential world environmental leader. "Bush is wary of putting any limits on industry that could jeopardize the fledgling economic recovery and put his own re-election at risk."<sup>141</sup> Tommy Koh of Singapore, one of the dynamic mainsprings of the Rio process commented: "[t]his will teach the United Nations not to hold a conference in an American election year."<sup>142</sup> *The Times* (London) suggested that Bush had "consistently put the demands of business and industry before environmental concerns."<sup>143</sup> It could also be assumed that environmentalism was perceived in the White House as unnecessary baggage which would not impress the American people. As *The Christian Science Monitor* commented:

environmental preservation and protection is unlikely to be a determining issue in this year's presidential election. It is difficult to focus on spotted owls and fouled streams when Dad has been laid off at the tractor factory and Mom's job as a supermarket cashier falls short meeting the bills.<sup>144</sup>

At the very moment when delegates were gathering in Rio to attend UNCED, the Government of the United States reported an unemployment rate of 7.5 percent, the highest in eight years.<sup>145</sup> Bob Dederick, Chief Economist at Chicago's Northern Trust Company suggested shortly after UNCED that the unemployment issue was an albatross around the President's neck.<sup>146</sup> Joel Naroff, chief Economist for First Fidelity Bancorporation in Philadelphia explained that the annual rate for increase in jobs (0.3 percent) was the lowest since the Second World War.<sup>147</sup> Two months before Rio, in a poll taken in April 1992, only 3 percent of American voters believed that the environment was the most important issue.<sup>148</sup> However, a USA

---

139. *Id.*

140. *Chance At Rio*, *supra* note 124, at A12.

141. *Bush Undecided*, *supra* note 125, at 2.

142. *After Rio*, CHRISTIAN SCI. MONITOR, June 16, 1992, at 20.

143. Fletcher, *supra* note 130, at 1.

144. *The Environment*, *supra* note 131, at 20.

145. *U.S. Unemployment at Eight-Year High*, GLOBE & MAIL, June 6, 1992, at B2.

146. Ron Scherer, *Slow Job Growth Hampers Bush*, CHRISTIAN SCI. MONITOR, Aug. 10, 1992, at 7 [hereinafter *Slow Job Growth*].

147. *Id.*

148. John Dillin, *Presidential Candidates Spar over US Environmental Issues*, CHRISTIAN SCI. MONITOR, Apr. 28, 1992.

Today/CNN/Gallup poll publicized in January 1992 showed that 60 percent of Americans considered the environment as a very important campaign issue, although it ranked eleventh out of sixteen issues.<sup>149</sup> The domestic situation in the United States could not but have an international impact and, these depressing statistics, arising in an election year, would influence United States policy towards the Rio formulations. On a more positive note, a Gallup poll publicized in June 1992 — the month of the Rio Summit — demonstrated that 65 percent of those surveyed in the United States would “trade higher prices for a safer environment,” and 59 percent indicated that “they would accept slower economic growth to protect the environment.”<sup>150</sup>

There was a tendency as well to suggest that the mainspring of United States resistance to the ideals espoused at Rio was Vice-President Dan Quayle, specifically, his Council on Competitiveness.<sup>151</sup> This Council was established by President Bush to ensure that “federal regulations do not impede economic progress.”<sup>152</sup> The Council was accused of weakening “the impact of the Clean Air Act.”<sup>153</sup> Vice-President Quayle is thought to have been anxious to protect the biotechnology industry in the United States from any threat to intellectual property rights in an international convention on biodiversity.<sup>154</sup> Critics of the Council alleged that this body “pushed changes that weakened the Clean Air Act, tried to rewrite government protections for wetlands, and forced the Environmental Protection Agency to drop a proposal that would have reduced municipal incineration by 25 percent.”<sup>155</sup> *The Christian Science Monitor* stated in an Editorial that “US leadership has been driven primarily by concerns that agreements to be signed at Rio don’t infringe too heavily on American economic prerogatives.”<sup>156</sup> Vice President Quayle argued that restrictive environmental legislation was “harming initiative and the performance of the American economy.”<sup>157</sup>

According to Thomas Jorling, New York state Commissioner of Environmental Conservation, the Council on Competitiveness had “stymied” the efforts of the US Environmental Protection Agency

---

149. Brad Knickerbocker, *White House Increases Budget, Action on Environmental Issues*, CHRISTIAN SCI. MONITOR, Jan. 28, 1992, at 6.

150. *Planet's Preservation Worth Paying More For: International Poll Shows*, VANCOUVER SUN, June 8, 1992, at A11.

151. *Biodivisive*, THE ECONOMIST, June 13, 1992, at 93.

152. *On Environment, No.2 Men Raise Eyebrows, Draw Fire*, CHRISTIAN SCI. MONITOR, Oct. 1, 1992, at 10 [hereinafter *On Environment*].

153. *The Environment*, *supra* note 131, at 20.

154. *Biodivisive*, *supra* note 151, at 93-94.

155. *On Environment*, *supra* note 152, at 10.

156. *Rio Balancing Act*, CHRISTIAN SCI. MONITOR, May 19, 1992, at 20.

157. Keith Schneider, *President Defends U.S. Envoy in Rio*, N.Y. TIMES, June 6, 1992, at 6.

(EPA).<sup>158</sup> *The Christian Science Monitor* also suggested that "[t]he Republican record of the past 12 years has generally been one of constant battle with environmental regulation."<sup>159</sup> However, presidential administration officials suggested that the environmental influence of the Vice-President and his Council on Competitiveness was overrated.<sup>160</sup>

President Bush perceived his environmental record optimistically. "I came to this office," he said, "committed to extend America's record of environmental leadership and I've worked to do so in a way that is compatible with economic growth."<sup>161</sup> Among his environmental achievements, the President pointed to the market-oriented clean air legislation; the moratorium of offshore oil and gas development in both the Eastern and Western United States; improved enforcement of regulations; acceleration of CFC phaseout to 1995; the ban on driftnet fishing; support for a ban on the ivory trade and an extensive tree planting program.<sup>162</sup> Additionally, Michael Deland, Chairman of the White House Council on Environmental Quality pointed to the allocation of \$1 billion for acquisition of new parkland and areas for recreation and a tripling of the rate of cleanup of Superfund toxic-waste sites.<sup>163</sup> Additionally, supporters of the President stressed the administration's achievement in raising the enforcement budget of the EPA by 72 percent; in doubling federal spending for the acquisition of wetlands; in doubling spending on research in energy and conservation subjects and in halting construction of the Two Forks Dam in Colorado.<sup>164</sup>

It is also significant to point out that internationally, the United States played a very significant role during the entire UNCED process, a fact often overlooked and ignored because the spate of negative publicity appears to accentuate only the controversial positions adopted by the Bush Administration. As Russell S. Frye commented in a presentation to the International Bar Association in September 1992,

Many of the key initiatives at UNCED were led by the United States. The US brokered compromise on energy issues with Saudi Arabia and other OPEC nations . . . the US supported the African countries in seeking a treaty on desertification.

---

158. Lucia Mouat, *Economic Climate Threatens Environmental Gains*, CHRISTIAN SCI. MONITOR, Mar. 3, 1992, at 9.

159. *The Environment*, *supra* note 131, at 20.

160. Knickerbocker, *supra* note 149, at 6.

161. *Bush Offers Plans To Conserve Forests and to Share Data on Climate*, N.Y. TIMES, June 2, 1992, at A10.

162. Dillin, *supra* note 148, at 2.

163. Knickerbocker, *supra* note 131, at 6.

164. Brad Knickerbocker, *Candidates Compete for Top "Green" Spot*, CHRISTIAN SCI. MONITOR, Oct. 1, 1992, at 11.



American representatives pushed for stronger provisions for monitoring, restrictions on overfishing, and the like to protect the nation's oceans. The US was a leader on forestry issues, much to the consternation of Malaysia and other countries opposed to any restriction whatsoever on their harvesting of tropical rainforests.<sup>165</sup>

The United States also committed itself to a Biodiversity Research Initiative to encourage "the development of biodiversity inventories and surveys to create the information base necessary for the protection of species."<sup>166</sup> Brad Knickerbocker of *The Christian Science Monitor* quoted one US delegate to UNCED commenting "What we do is never considered enough, and we've come to live with that."<sup>167</sup>

The crucial question is whether the American presidential election influenced the universal acceptance and success of the Convention on Biological Diversity. There can be no doubt that ratification by signatories, implementation and action at the national, regional and international levels would have proceeded far more rapidly with respect to this and other Rio formulations had the American President lent the weight of the support of his government to the process instead of becoming its most prominent obstacle. Only George Bush in some future memoir can tell us whether he felt compelled by the logic of the election campaign to trim his environmental enthusiasm. Meanwhile, until such a memoir appears, the answer to the question will have to be a tentative affirmative. So great is the influence of the United States in world affairs that it ought not to be surprising that its rejection of this Convention would have a tremendous impact.

Arguably, the United States position at Rio was a product of many factors, the ideology of the Vice-President and some members of the White House staff, to say nothing of President Bush himself; the recessionary economy and the need to assure Americans that jobs were a top priority; the desire to protect American industry and business interests even at the expense of global environmental considerations; the apparent lack of interest in environmental matters during the presidential campaign — a signal to the candidates that economy mattered more than ecology and finally, an unwillingness or inability on the part of President Bush to seize the initiative in the war against planetary devastation with the same firmness he dis-

---

165. Russell S. Frye, Presentation to the 24th Biennial Conference of the International Bar Association, Cannes, France, Sept. 23, 1992, published as *Uncle Sam at UNCED*, 22 ENVTL. POL'Y & L. 342 (Dec. 1992).

166. Paul Raeburn, *The Convention on Biological Diversity: Landmark Earth Summit Pact Opens Uncertain New Era for Use and Exchange of Genetic Resources*, 8 DIVERSITY, 3 (1992).

167. Brad Knickerbocker, *Rio de Janeiro*, CHRISTIAN SCI. MONITOR, June 10, 1992, at 3.

played in his war against Iraqi aggression in Kuwait. He let slip an opportunity which could have assured him a reputation as one of America's great presidents and possibly an outstanding world leader. That he may have sacrificed permanent glory for an election victory which eluded him in any event is ironic and, for the United States, the Rio process and the entire world, rather tragic.

*B. The United States Opposition to the Convention on Biological Diversity*

Disparaged as a "squiffy little treaty,"<sup>168</sup> the Convention on Biological Diversity aroused considerable opposition in the United States Government of President George Bush. According to *The Economist*, the United States Department of the Interior played a significant role in the negotiations and "disliked the whole idea of the biodiversity convention. It would probably have preferred the talks to collapse long before Rio, leaving no treaty for President Bush to sign."<sup>169</sup> That the talks did not collapse and were indeed successful despite the United States is testimony to the determination of the rest of the world to pursue the environmental agenda regardless of the opposition of the world's only superpower. *The New York Times* suggested that E.U. Curtis Bohlen, Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, who led the US delegation in the biodiversity negotiations was in favor of American acceptance as was William Reilly, Administrator of the EPA.<sup>170</sup> A memo written on 14th April 1992 by David M. McIntosh, Executive Director of the President's Council on Competitiveness, is thought to have been decisive in influencing the United States rejection of the Convention. According to McIntosh, "economic harm from signing the treaty would substantially outweigh environmental benefits."<sup>171</sup> McIntosh denied that he expected his memorandum to "stop a treaty," insisting that "[w]e thought people should be made aware of it and let them adjust it in negotiations."<sup>172</sup>

There were a variety of objections on the American side to the provisions and priorities of the Convention. The entire concept of biodiversity was probably perceived as a 'hot potato' in the domestic arena largely because "[b]iodiversity issues can spark major political

---

168. *Biodivisive*, *supra* note 151, at 93.

169. *Id.*

170. *White House Rejects Plea to Sign Rio Treaty*, N.Y. TIMES, June 5, 1992, at A6 [hereinafter *White House*].

171. *Id.*

172. Keith Schneider, *President Defends U.S. Envoy in Rio*, N.Y. TIMES, June 6, 1992, at 6.

battles in the US, as the spotted owl controversy shows."<sup>173</sup>

Testifying before the Standing Committee of the Canadian House of Commons in November 1992, Walter Reid, Vice-President of the World Resources Institute of Washington D.C. explained that

the reason why the U.S. didn't sign appears to be, in a word, politics. The U.S. misjudged the potential effects of the convention and based an ill-considered decision on what appeared to be politically expedient rather than environmentally and economically desirable.<sup>174</sup>

Although political expediency undoubtedly played a role, it cannot be perceived as the only reason for the United States' rejection of the Convention. Although the controversial aspects of the Convention will be discussed later, it is important here to explain why the American delegation felt so strongly about the weaknesses of the Biodiversity Convention. In seeking to regulate corporate activities to some extent, the Convention may have been more than Bush could ideologically tolerate,<sup>175</sup> given his preference for the untrammelled operation of the free market. The Bush Administration had committed itself to less, not more regulation of technology as evidenced by the White House release in February 1992 of a "scope document" which "established that biotechnology products do not pose any inherent risk and therefore [would] not be regulated differently than products of other technologies."<sup>176</sup> In May 1992, shortly before the Earth Summit, the U.S. Food and Drug Administration announced that "genetically engineered food products [would] not receive separate or special regulatory attention."<sup>177</sup>

The concept of enforced sharing of benefits derived from the genetic resources of the South was probably too threatening a concept for these proponents of the former system whereby the South derived no benefit from its genetic resources while Northern companies which carried out the research and manufactured the product derived from the Southern resource made enormous profits. The Convention seeks essentially to rectify this situation which is perceived as unjust in the developing world. In its Preamble the Convention encourages the *desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and prac-*

---

173. Rio Balancing Act, CHRISTIAN SCI. MONITOR, May 19, 1992, at 20.

174. Testimony of Walter Reid, Canadian House of Commons Standing Committee on Environment, Nov. 23, 1992, House of Commons Issue No. 47, 34th Parliament, Third Session 1991-1992.

175. Frank Rutter, *At Rio, U.S. is Sadly a Bush Leaguer*, VANCOUVER SUN, June 10, 1992, at A12.

176. Steve Usdin, *Biotech Industry Played Key Role in U.S. Refusal To Sign BioConvention*, 8 DIVERSITY, 7 (1992).

177. *Id.*

*tices relevant to the conservation of biological diversity and the sustainable use of its components.* The Convention also states that *access to and sharing of both genetic resources and technologies are essential* (Preamble). Because the American biotechnological industry rose to global prominence in an era when the source country of the original genetic resource was not even recognized, the changed situation created by the Convention was probably perceived as threatening to the status quo. The economic stakes for the United States are very high. With respect only to the pharmaceutical industry, the World Resources Institute estimates that drugs derived from plants have a retail value of approximately \$43 billion per year and "the industry is growing at more than 10 percent per year."<sup>178</sup> At UNCED President Bush couched his opposition in the language of principle and told delegates:

We come to Rio prepared to continue America's unparalleled efforts to preserve species and habitat. And let me be clear. Our efforts to protect biodiversity itself will exceed — will exceed — the requirements of the treaty. But that proposed agreement threatens to retard biotechnology and undermine the protection of ideas . . . it is never easy, it is never easy to stand alone on principle, but sometimes leadership requires that you do. And now is such a time.<sup>179</sup>

Further, the process of international regulation once underway, could, according to the White House, have a serious impact on the United States. The Administration argued that the Convention "would lead to international regulation of the genetic engineering industry, an area in which the United States would like to maintain competitive leadership."<sup>180</sup> The Bush White House was subjected to intense and well-organized pressure from groups such as the Association of Biotechnology Companies, the Pharmaceutical Manufacturers' Association and the American Intellectual Property Law Association. Lisa Raines, Vice President Industrial Relations for the Industrial Biotechnology Association advised the United States negotiators to reject provisions in the Convention concerning intellectual property rights. Raines complained about the "highly objectionable provisions permitting developing countries to ignore or restrict intellectual property rights in the field of biotechnology."<sup>181</sup> It was also feared that acceptance of the provisions of the Convention could "set a bad precedent for negotiations on the General Agreement on Tar-

---

178. Al Gore, *Essentials for Economic Progress: Protect Biodiversity and Intellectual Property Rights*, THE J. OF NIH RESEARCH, Oct. 1992.

179. Statement by George Bush, President, U.S.A., UNCED, Rio, June 12, 1992.

180. William K. Stevens, *To U.S., Treaty's Flaws Outweigh its Benefits*, N.Y. TIMES, June 6, 1992.

181. Russell S. Frye, *Uncle Sam at UNCED*, 22 ENVTL. POL'Y & L. 344 (Dec. 1992).

iffs and Trade (GATT) and other trade agreements.”<sup>182</sup> William Reilly, Head of the United States Delegation to the Earth Summit agreed, explaining that “[w]e have negotiated in the Uruguay Round of GATT to try to protect Intellectual Property Rights. We’re not about to trade away here in an environmental treaty what we worked so hard to protect there.”<sup>183</sup>

One of the most important achievements of this Convention lies in its clear endorsement of the fact that biodiversity is a *national* resource and not part of the common heritage of mankind. Inevitably, those biotechnological companies which have profited by the common heritage concept cannot but resent the new situation. In its Preamble, the Convention states that *States have sovereign rights over their own biological resources*. The endorsement of national rights goes further: *States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies* (Article 3). Because the Contracting Parties are nation states, the enormous activity generated by the Convention will, inevitably, be primarily at the national level when parties *develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity* (Article 6(a)) and *[d]evelop or maintain necessary legislation to protect threatened species* (Article 8(k)). Hence the Convention brings biodiversity within the sphere of national control and directs individual governments to take all kinds of measures from research and training (Article 12) to undertaking environmental impact assessments (Article 14.1). Walter Reid, Vice President of the World Resources Institute explains this aspect of the significance of the Convention:

From the standpoint of global biodiversity conservation, the most important thing is that it confirms under international law that biodiversity is a sovereign national resource and that governments have the authority to determine the conditions under which access to that resource is granted. The distinction between this treatment of biodiversity and its previous treatment as the common heritage of mankind could not be sharper or its implications for conservation more profound.<sup>184</sup>

The Bush Government was also reluctant to support the financial stipulations of the Convention because it appeared that the

---

182. Usdin, *supra* note 176, at 7.

183. *What They Are Saying: First Reactions to the Biodiversity Convention*, 8 DIVERSITY 8 (1992) [hereinafter *What Are They Saying*].

184. Walter Reid, Vice President, World Resources Institute, Testimony before Canadian House of Commons Standing Committee on Environment, November 23, 1992, House of Commons, Issue No. 47, Third Session, 34th Parliament, 1991-1992.

Treaty made the financial contributions mandatory.<sup>185</sup> President Bush apparently objected to the funding clauses<sup>186</sup> and refused to sign any document which would give "developing countries too much say in funding decisions."<sup>187</sup> The essential objections were therefore largely grounded in economics, the U.S. Government stating the Convention "could enable developing countries to extract limitless funds from wealthy nations for preserving endangered species, and could hinder the continued access of America's biotechnology and pharmaceutical industries to those species found in Third World countries."<sup>188</sup> In an oft-repeated remark, the President said "we are going to stay out front, but we are not going to act like we have an open checkbook."<sup>189</sup> In a press conference, the U.S. President insisted that "[w]e don't have an open pocket book and we cannot enter into anything if we don't keep the commitment. The financial arrangements are too open-ended for us."<sup>190</sup> He repeated his objections about the financial provisions in his speech at UNCED stating that the Convention's "financing scheme will not work."<sup>191</sup>

Financial considerations were therefore primary although the American Administration voiced strong objections to what it considered to be an all-out assault on the concept of intellectual property rights in the Convention. The President suggested that this was the biggest problem with the convention on biological diversity, "the question of intellectual property rights — the proposal that companies in the developed world making use of the resources of poorer nations should have to pay them royalties on the products they developed."<sup>192</sup>

To cynics, it appeared that the United States wanted to continue to have free and unfettered access to the South's treasure trove of biodiversity without any consideration to the issue of sharing the benefits derived from this resource. Environmentalist Vandana Shiva voiced the frustration of developing nations when she said "[m]ost of the bio-diversity exists in the South. Two-thirds of it exists in the South. It is a Third World resource. By calling it a global resource, by calling it a common heritage of mankind, the North is basically preparing the ground to assure raw material supply for the emerging

---

185. Stevens, *supra* note 180, at 6.

186. Dennis Bueckert, *Leaders Back Plan to Heal Environment*, EDMONTON J., June 15, 1992, at A5.

187. Michael McCarthy & Robin Oakley, *Major Fights to Make Rio Treaty 'Signable'*, THE TIMES (London), June 3, 1992, at 1.

188. Martin Fletcher & Robin Oakley, *Major Cautions Against Too Much Optimism Over Rio*, THE TIMES (London), June 2, 1992, at 1.

189. *Bush's Bumpy Road to Rio*, U.S. NEWS & WORLD REP., June 22, 1992, at 20.

190. Robin Oakley, THE TIMES, (London) June 8, 1992, at 1.

191. Statement by George Bush, President, U.S.A., UNCED, Rio, June 12, 1992.

192. Oakley, *supra* note 190, at 1.

biotechnology industry which needs this diversity as input."<sup>193</sup> Shiva continued to explain that "[b]asically, behind the bio-diversity conflicts is a conflict over who will control this future raw material and whether that bio-diversity will be able to sustain life in the Third World or it will only sustain profits for Northern corporations."<sup>194</sup> The Centre for Science and Environment in India perceived a double standard in the negotiating process for the Biodiversity Convention and argued that "the high sounding plea of the common heritage of humankind is a rhetorical device to disguise the continued exploitation of the poorer countries and their farmers."<sup>195</sup> On a kinder, gentler note, Kenya's Minister for Environment, Philip Leakey urged the United States to sign the Convention and cautioned that "failure to sign . . . will be an opportunity missed, and will have far reaching effects."<sup>196</sup> It was possibly the realization of these long-term consequences that prompted Dr. Henry Shands who directs the American genetic resources program and was a member of the United States negotiating team to repeat the commitment of his nation "to the concept of open exchange of genetic resources with all nations of the world."<sup>197</sup> Geoffrey Hawtin, Director of the International Board for Plant Genetic Resources (IBPGR) in Rome minimized the impact of the United States' rejection of the Convention and explained that "[t]he United States has been one of the most liberal countries in terms of making material available. I would not expect that position to change."<sup>198</sup>

An ancillary problem is that the sheer poverty of developing nations compels them to utilize their biological resources in the most profitable way open to them by destroying the timber and expanding development into the forests. "Unless poor countries are compensated for conserving these resources they will, they say, have to put short-run before long-run development."<sup>199</sup> In the developing world, the issue of intellectual property rights did not appear to be a valid justification for the American rejection of the Convention particularly as President Bush appeared to believe that biotechnology companies ought to utilize the resource without compensation to its own-

---

193. Vandana Shiva, Interview, Stephen Bradshaw, B.B.C. News and Current Affairs telecast on the Canadian Broadcasting Corporation's News Network, June 1992.

194. *Id.*

195. Centre For Sci. and Env't, *The CSE Statement on Global Environmental Democracy To Be Submitted to the Forthcoming UN Conference on Environment and Development*, New Delhi, India.

196. Statement by Philip Leakey, Minister for Environment and Natural Resources, Kenya, UNCED, Rio, June 12, 1992.

197. Paul Raeburn, *The Convention on Biological Diversity: Landmark Earth Summit Pact Opens Uncertain New Era For Use and Exchange of Genetic Resources*, 8 DIVERSITY 6 (1992).

198. *Id.*

199. *Biodegradable Treaty*, THE TIMES (London), June 3, 1992, at 15.

ers, an argument which violates the fundamental premise of the legal rights of property ownership. So it seemed to environmentalists in the developing world that the United State was suggesting that it was important to protect its own property rights but acceptable to violate those of developing nations. Although this may have been somewhat of an exaggeration of the American position, it became part and parcel of the hostile environment which developed against the United States before and during UNCED.

### C. *The Leaked Memo*

One of the more bizarre events involving the Convention on Biological Diversity unfolded, much to the embarrassment of the United States delegation, while delegates were gathering in Rio to attend UNCED. William Reilly, Director of the Environmental Protection Agency wrote on 3rd June to Clayton Yeutter, President Bush's domestic Policy Chief informing him that "Brazil [had] offered to 'fix' the Biodiversity Convention so that the United States could sign it."<sup>200</sup> Reilly voiced his "serious doubt whether the Brazilians can get others to accept a fix,"<sup>201</sup> but was willing to allow them to try. The quid pro quo from the Brazilian side was a definite commitment by the United States to sign the Convention. Reilly explained to Yeutter that "the U.S. refusal to sign the Biodiversity Convention is the major subject of press and delegate concern here"<sup>202</sup> and went on to suggest that "[t]he changes proposed, while not making everyone in the U.S. Government totally happy, would address the critical issues that have been identified. They are worth a last examination."<sup>203</sup> The proposed changes concerned minor linguistic adjustments and the deletion of provisions "that create anxieties about intellectual property rights, technology transfer, concessional terms [and] the regulation of biotechnology."<sup>204</sup>

This confidential memo was leaked to the *New York Times*, which published extracts. Sean Cronin, Washington correspondent of *The Irish Times* alleged that the leak was perpetrated by an aide of Vice-President Quayle.<sup>205</sup> Assertions of high level involvement in the leak were vehemently denied as false by Jeffrey Nesbit, spokesman for the Vice President.<sup>206</sup> However, the *New York Times* maintained that "[a]n Administration official, concerned that Mr. Reilly might

---

200. *Excerpts from Rio Memo: A Plea for the Environment*, N.Y. TIMES, June 5, 1992, at A6.

201. *Id.*

202. *Id.*

203. *Id.*

204. *White House*, *supra* note 170, at A6.

205. Sean Cronin, *Bush Replies to Rio Critics*, IRISH TIMES, June 6, 1992, at 9.

206. Schneider, *supra* note 157, at 6.



persuade the White House to sign the treaty, gave a copy of the memorandum to the New York Times."<sup>207</sup> President Bush threatened to dismiss the official who had leaked the memo provided he could be found.<sup>208</sup> However, he did not change his mind about the Convention and shortly after Reilly proposed the changes, Samuel Skinner, White House Chief of Staff rejected the idea.<sup>209</sup>

Administration officials said the changes did not come close to resolving the more fundamental concerns they had about the treaty. 'It caused a little commotion at the White House,' another Administration official said. 'The response was what you'd expect. A flat no.'<sup>210</sup>

The entire episode turned out to be a public relations fiasco and left Reilly in a position which was "barely tenable."<sup>211</sup> Reilly was forced to defend "his reputation as someone who had the confidence of his Government"<sup>212</sup> because, as one Brazilian diplomat asked, "What is the White House trying to do to their man here?"<sup>213</sup> The Editor of *Environmental Policy and Law* commented that Reilly's "situation was confusing, to say the least. He has long been well-known in the environment movement as a progressive, and many people could not understand his continued patience in accepting such a situation."<sup>214</sup> David McIntosh who had written the earlier memorandum which determined the American Government's rejection of the Convention was, during this episode, reported to be "at the center of a group of White House staff members that met to determine how to react to Mr. Reilly's proposal, and then quickly decided to reject it."<sup>215</sup> Although President Bush was careful to praise his EPA Director and accord him "full support,"<sup>216</sup> Reilly's embarrassment was compounded by the fact that he had suggested to reporters that a compromise might be forthcoming, only to be informed by the media that the White House had rejected his proposal.<sup>217</sup> In Rio, William Reilly, who was the chief negotiator for the United States at UNCED, could only issue a statement that it was "most unfortunate that someone within our government chose to leak information

---

207. *Id.*

208. Andrew Rosenthal, *Bush Would Oust Rio Memo's Leaker*, N.Y. TIMES, June 8, 1992, at A5.

209. *Id.*

210. *White House*, *supra* note 170, at A6.

211. Fletcher, *supra* note 130, at 1.

212. James Brooke, *Britain and Japan Decide To Sign Environmental Pact*, N.Y. TIMES, June 6, 1992, at 6.

213. *Id.*

214. See generally 22 ENVTL. POL'Y & L. (Aug. 1992).

215. *White House*, *supra* note 170, at A6.

216. Cronin, *supra* note 205, at 9.

217. Fletcher, *supra* note 130, at 1.

about these most important efforts that demanded diplomatic discretion."<sup>218</sup> Al Gore was at Rio leading a delegation of the United States Senate to UNCED. He commented that "[o]nce again the principal official in charge of U.S. environmental policy has been overruled — and this time the whole world is watching."<sup>219</sup>

This debacle of the leaked memorandum exposed, very clearly for all the world to see that the Government of the world's only superpower was grappling with its own internecine struggles over the issues of development versus environment. Ironically, this episode only highlighted the fact that there are vast chasms to cross not just in the United States but everywhere in attempting to harmonize these seemingly polarized positions, favouring either environment or development. In a very real sense, the rift within the U.S. Administration mirrored the dilemma facing delegates at UNCED who were after all seeking to find an international bridge between the two concepts. Although sustainable development has been articulated as the ultimate nexus which will link these two ideas, globally, implementation will be something of a challenge.

#### *D. The Clinton Presidency and the Biological Diversity Convention*

At time of writing there has been no reversal by President Clinton of the rejection of the Convention on Biological Diversity. Whether this reflects the priorities of the Clinton Administration which lean towards domestic issues — specifically the economy and health care — or whether the new U.S. Government has problems with the Convention remains to be seen. There are great environmental expectations from the Clinton presidency, largely because Al Gore, a renowned environmentalist is now Vice President of the United States. Certainly, "[w]hen the returns from the presidential election came in, environmentalists around the country cheered."<sup>220</sup> During the election campaign the Democratic Party committed itself to preservation of planetary biodiversity.<sup>221</sup>

Internationally, environmentalists were encouraged by Al Gore's vocal criticism of President Bush's performance at Rio. He commented that "countries were looking for strong leadership from the U.S. on environmental policy."<sup>222</sup> Gore believed that the United States had failed to provide the leadership required.<sup>223</sup> Environmen-

---

218. *Id.*

219. Brooke, *supra* note 212, at 6.

220. Brad Knickerbocker, 'Enviros' See Clinton White House as a Green House, CHRISTIAN SCI. MONITOR, Nov. 12, 1992, at 14.

221. *The Environment*, *supra* note 121, at 20.

222. GLOBE & MAIL, June 13, 1992, at A4.

223. *Id.*

talists are pinning their hopes on the new Vice President to fulfil the leadership role for his nation in environmental conservation. The Sierra Club, a prominent environmental group endorsed the Clinton-Gore ticket,<sup>224</sup> but did so cautiously emphasizing Clinton's proposals and intentions rather than his environmental record as Governor of Arkansas.<sup>225</sup> As James Rusk, Environment Reporter of *The Globe & Mail* commented shortly after the election,

What activists expect is that, as vice-president and Mr. Clinton's chief adviser on environmental issues, Mr. Gore will ensure that environmental concerns do not get lost as the new administration sets economic and foreign policies.<sup>226</sup>

Rusk also expressed his belief that the United States would sign the Biodiversity Convention.<sup>227</sup> Abraham Lowenthal, Director of the Center for International Studies at the University of Southern California suggests that Clinton's Administration "is likely to focus on global environmental issues . . . with the goals to narrow the gap between the US position and that of other major nations reflected at June's Earth Summit in Rio de Janeiro."<sup>228</sup>

President Clinton made a number of significant environmental promises during the election campaign including a commitment to sign the Convention on Biological Diversity.<sup>229</sup> However, Clinton has also admitted to favoring economic considerations over environmental ones when compelled by circumstances although he "now rejects the notion that the environment must be sacrificed for jobs."<sup>230</sup> With respect to the Biodiversity Convention, it is unclear whether Clinton will agree to sign it as it stands and then strive for its amendment, negotiating changes which would accommodate some of the controversial issues such as technology transfer, intellectual property rights and the funding mechanisms. According to Walter Reid, Vice President of the World Resources Institute, President Clinton stated during the Earth Summit "that had he been president, he would have negotiated a better convention and would have signed it in Rio."<sup>231</sup> This kind of remark would suggest that some amendment proposals may be forthcoming from the United States. However, at this early stage, President Clinton has yet to assume the role of international

---

224. James Rusk, *Gore Gave Clinton 'Clean' Sweep*, GLOBE & MAIL, Nov. 6, 1992, at A8.

225. Knickerbocker, *supra* note 164, at 11.

226. Rusk, *supra* note 224, at A8.

227. *Id.*

228. Abraham F. Lowenthal, *Clinton's Foreign Policy*, CHRISTIAN SCI. MONITOR, Oct. 29, 1992, at 18.

229. Knickerbocker, *supra* note 164, at 11.

230. Dillin, *supra* note 148, at 2.

231. Testimony of Walter Reid, Canadian House of Commons Standing Committee on Environment, Issue No.47, Nov. 23, 1992, Third Session, 34th Parliament, 1991-1992.

environmental leader. Hopefully, he will not discard this opportunity as cavalierly as did President Bush. Another option open to President Clinton would be to sign it and to include a statement of interpretation regarding any contentious clauses. Such a statement would necessarily only bind the United States Government but it would enable the American position on intellectual property rights to be specified, brought into focus relative to the Convention and it might, to some extent alleviate or ease the anxiety of the vigorous anti-Convention lobby which was so active during the Earth Summit.

As regards Vice President Al Gore, in his book *Earth in the Balance*, he sketched out a visionary framework for an action plan to save the environment which included "the rapid creation and development of environmentally appropriate technologies"<sup>232</sup> and their quick transfer to developing and other nations.<sup>233</sup> Such an idea would obviously be viewed very favorably in the Afro-Asian Latin American world. However Gore in another section also proposed "[b]etter protection for patents and copyrights [and] improved licensing agreements."<sup>234</sup> The latter proposal would place him more within the policy parameters of the U.S. negotiating team during the UNCED process. These two ideas are not necessarily contradictory and may well become part and parcel of future United States policy concerning international biodiversity. In an important article written for *The Journal of NIH Research* in its October 1992 issue, Vice President (then Senator) Gore explained that "[a]ccess to native resources and protection of intellectual property are complementary concerns"<sup>235</sup> and defined his priorities with respect to biodiversity:

Sustainable use of the Earth's biodiversity requires three actions; (1) conservation of the diversity, (2) protection of intellectual property rights earned by those who invest in research on new uses of native species, which then become more valuable and more likely to be conserved because of their enhanced value, and (3) maintenance of equitable and open access to native resources.<sup>236</sup>

Gore went on to blame the Bush Administration for refusing "to engage in meaningful negotiations on the issue of intellectual property protection."<sup>237</sup> This refusal, according to Gore, resulted in the inclusion of language opposed to the interests of the biotechnology industry in the Convention. This very significant statement followed:

---

232. GORE, *supra* note 70, at 306.

233. *Id.*

234. *Id.* at 320.

235. Gore, *supra* note 178.

236. *Id.*

237. *Id.*

"The Clinton-Gore administration will work to present a coherent plan for protecting biodiversity and intellectual property rights in a way that enhances conservation and facilitates global research efforts by U.S. businesses and universities."<sup>238</sup>

Two conclusions emerge from the analysis of statements made by Clinton and Gore. First, it is likely that the United States will sign the Convention fairly soon and it appears to be equally likely that it will seek to amend certain of its provisions if it feels that it can command sufficient international support to do so. The new Administration is keenly aware of the interests of the American biotechnology industry and appears anxious to preserve an area which has both economic and environmental benefits for the United States and ultimately for the whole world. However, it also seems that Clinton will not want to appear isolated in international environmental issues as Bush was. Whether Clinton decides to sign the Convention as it is and then work for improvement in the later implementation stage remains to be seen. The international public relations debacle over the Bush government's refusal to sign may propel Clinton to accept the Convention as a way of announcing to the world that America is back in the fold, as it were and pursuing the correct path environmentally. Although this section has of necessity had to be speculative, the prospects for American adherence to the Convention are positive and the new Administration appears to be shrewd enough to turn its signature into a public relations coup.

*E. The Provisions of the Convention and the Interests of the United States*

As the preceding section has demonstrated, gauging the Clinton-Gore policy on this Convention is at best speculative at the present time. However, given the fact that opposition to the Convention was strong in the Bush Government and was quite vocal in the biotechnological industry in the United States, it might be worthwhile to examine some provisions of the Convention with the above background concerning United States attitudes in mind. It is important to stress the fact that the opposition to the Biodiversity Convention was not exclusive to the Bush White House or to Vice President Quayle's entourage. The provisions of the Convention drew forth the sustained and determined efforts of a number of individuals in the United States who were extremely apprehensive about American involvement in this Treaty. Even if President Clinton acts, as he is expected to, and signs the Convention, he will still have to work to allay the fears of those who lobbied long and hard with the Bush

---

238. *Id.*

Administration to keep the United States out of the Biodiversity Convention.

The reason why any analysis of this nature has perforce to focus on the United States is obvious. Aside from being the world's only remaining superpower and a great economic force in its own right, the United States, given its political and military influence around the world and the growing influence of its pre-eminent biotechnological industry, has to become part of this Convention if the ideal of conserving biodiversity is to succeed. Without the United States, the Convention is at least hobbled, if not crippled and it is likely that if the Clinton Administration initiates some new approaches which will accommodate American apprehensions and yet bring the nation into the Convention, the rest of the world may be quite amenable.

The Convention lists among its objectives *the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies.* (Article 1.) This provision is vague enough and its commitments nebulous enough not to arouse too much controversy, given the expected environmental leanings of the new Administration.

Arguably, the action plans of the Convention, the series of measures to identify, monitor and protect biological diversity could be perceived as an important opportunity for American scientists and researchers to act as advisors to developing nations who are now committed to the many tasks directed by the Convention. Further benefits could accrue to international lawyers who would be called upon to negotiate the agreements between corporations and foreign governments concerning the sharing of biodiversity. Employment opportunities developed by the Convention could become very significant if Americans join it quickly. United States isolation had some immediate negative consequences. According to Brian Boom, Vice President for the botanical sciences at the New York Botanical Garden, the Venezuelan Government "suspended the signing of new agreements for scientific collaboration with U.S. institutions as a response to the U.S. position on the UNCED Biodiversity Convention" and Boom cautioned about the likelihood of other nations adopting the same policy.<sup>239</sup> It is also possible that the dictates of "the global market may force US biotechnology firms to fall in line with the rest of the world."<sup>240</sup> Kenton Miller of the World Resources Institute commented that "[w]e are either in the club or out of the club."<sup>241</sup>

---

239. Dr. Brian Boom, Vice President, New York Botanical Garden.

240. Frye, *supra* note 181, at 344.

241. Richard Stone, *The Biodiversity Treaty: Pandora's Box or Fair Deal?* Sci., Vol.

As Russell Frye explained to the International Bar Association, developing nations might prefer to sell their biodiversity resource to companies which agree to pay them royalties and the United States may face trade barriers imposed against American biotechnological companies by developing nations.<sup>242</sup>

Article 15 of the Convention considers the issue of access to genetic resources. It recognizes the *sovereign rights of States over their natural resources* (Article 15.1) and stipulates that national governments have the *authority to determine access to genetic resources*. (Article 15.1) However uncomfortable the multinational corporations based in the United States might feel about this tribute to national sovereignty, the article is in effect only stating the obvious by specifying that national legislation rules access to genetic resources. A further provision is even more important and points to the necessity for the United States urgently to accede to the Convention and put an end to its international isolation on this issue:

*Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.* (Article 15.2)

The mild language ought not to disguise the underlying premise that the Convention implies greater cooperation between Contracting Parties. The reverse, in other words, less cooperation with non-party states could also be implied though it is not stated. *Access, where granted, shall be on mutually agreed terms.* (Article 15.4) This provision makes it clear that the developing nations are determined to have a say in the utilization of a resource which they have, until recently, been literally giving away with little or no benefit to their people. The next clause underscores this aspect of the new world environmental order:

*Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.* (Article 15.5)

There is already evidence that mutually beneficial agreements can be formulated by developing nations and large corporations. "In 1991 Merck and Company, the world's largest pharmaceutical firm, agreed to pay Costa Rica's National Institute of Biodiversity \$1 million" for the collection and identification of organisms for possible medical use.<sup>243</sup> The agreement allows for a two-year transfer of sam-

---

256, June 19, 1992.

242. Frye, *supra* note 181, at 344.

243. WILSON, *supra* note 4, at 320.

ples from plants, animals and insects.<sup>244</sup> Once a medical function is discovered and the substance marketed, the Costa Rican Government will earn a share of the royalties, funds which will subsidize conservation programs. The financial benefits for both the corporation and the originating country could be extensive. In 1990, to cite only one example, Merck's sales of one substance Mevacor (used for lowering cholesterol) amounted to \$735 million.<sup>245</sup> Mevacor was originally derived from a fungus. With 12,000 plants and 300,000 insects within its terrain,<sup>246</sup> Costa Rica stands to derive enormous benefits from this type of agreement, as indeed does Merck. It is interesting to note that Thomas Eisner of Cornell University who brokered this agreement, is an ardent supporter of the Convention and accuses its opponents of "antediluvian thinking."<sup>247</sup> Arthur Campeau, Personal Representative of the Prime Minister of Canada to UNCED commented on the Merck Agreement with Costa Rica before the House of Commons Standing Committee on Environment:

Developing countries are already choosing to cooperate only with those researchers who will offer that type of agreement. As a result, other biotechnology and pharmaceutical companies are responding by offering similar agreements. This presents an opportunity for Canadian biotechnology companies.<sup>248</sup>

Mostafa Tolba, former Executive Director of the United Nations Environment Programme pointed out that far from being a penalty on industry, funding by the private sector to support conservation is in its ultimate self-interest "to ensure business sustainability."<sup>249</sup>

The Convention also stipulates that

*Each Contracting Party shall endeavour to develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties. (Article 15.6)*

This provision seeks to redress the imbalance in research facilities between the North which can afford to provide funding for its scientists and the South which cannot afford a research grants system on the same scale, given the basic requirements for food, shelter and

---

244. Frye, *supra* note 181, at 344.

245. WILSON, *supra* note 4, at 320-21.

246. *Id.* at 321.

247. Steve Usdin, *Biotech Industry Played Key Role in U.S. Refusal to Sign BioConvention*, 8 DIVERSITY 7, 1992.

248. Testimony of Arthur Campeau, Q.C., Personal Representative of the Prime Minister of Canada to UNCED, before Canadian House of Commons Standing Committee on Environment, November 23, 1992, House of Commons, Issue No. 47, Third Session, 34th Parliament, 1991-1992.

249. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, Third session, Ad Hoc Working Group of Experts on Biological Diversity, Geneva, July 9, 1990.



bare necessities of such a large proportion of its huge population. The result of this imbalance is a continuing brain drain from the South to the North as the best scholars and scientists are lured by the possibilities available to them to stretch their potential to its maximum. The existence of better facilities and more funding for research in developing nations would be an important asset for such nations and would probably result in averting some of the brain drain which deprives countries which are in real need of their most talented people. In an Editorial, *The Times* (London) commented that "[i]t is right that poor countries should start to share in such profits and in genetic research."<sup>250</sup>

The South apparently assumed that the Northern nations which would benefit from their biodiversity could simply legislate equitable sharing of the results of research and development and take administrative or policy measures to direct that the benefits of commercial use be shared with the country of origin, on mutually agreed terms. The provision states:

*Each Contracting Party shall take legislative, administrative or other measures, as appropriate . . . with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms. (Article 15.7)*

Although policy measures to promote sharing are possible, there would probably be considerable resistance to the enforcement of blanket proposals directing such transfer of technology or results of research. Kirk Raab, President of Genentech, a biotechnology company expressed his apprehensions to President Bush suggesting that "[t]he vague language relating to 'technology transfer' and equitable sharing appear to be code words for compulsory licensing and other forms of property expropriation."<sup>251</sup> Issues of compensation would also have to be considered and the extent to which the research and/or technology could be replicated or its results marketed in developing nations. This provision will probably merit some careful consideration by the Clinton Administration which will have to determine whether its text can be accommodated within the private sector, market-oriented economic system or whether there is scope for amendment of this article after the United States joins the Convention. It is also important to note that the more mandatory word "shall" is used, directing governments to take the steps enumerated.

---

250. *Advance on Rio*, THE TIMES (London), June 6, 1992, at 15.

251. Steven Greenhouse, *Ecology, Economy and Bush's Stand*, N.Y. TIMES, June 14, 1992, at 6.

With respect to the issue of intellectual property rights and technology transfer, the Convention specifies in Article 16 that first, Contracting Parties undertake *to provide and/or facilitate access for and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment* (Article 16.1). Second, developing countries shall be provided access to technology *under fair and most favourable terms, including on concessional and preferential terms where mutually agreed* (Article 16.2). Third, *[i]n the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights* (Article 16.2). Thus far, the provisions would not appear to be too threatening to American interests particularly as it is now generally conceded by almost every Northern government that the transfer of environmentally-safe technology to the developing nations will be result in mutual benefit because the rapidly growing Southern industrial base can convert to less polluting methods of production which can only improve the quality of life for all the inhabitants of this planet. With respect to this provision, the Committee on International Environmental Law of the Association of the Bar of the City of New York noted that intellectual property rights are protected and the same Committee pointed out that other sections regarding technology transfer specify that this will occur on 'mutually agreed terms', as was required by U.S. negotiators and hence, the Committee concluded that the objections of the biotechnology industry were "based on a misinterpretation of the text."<sup>252</sup>

However, the same clause goes on to insist on adherence to its own consistency with three provisions which follow. The first of these controversial stipulations states that

*Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that Contracting Parties, in particular those that are developing countries, which provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms, including technology protected by patents and other intellectual property rights* (Article 16.3).

It is unclear whether this infers that developed countries should legislate away intellectual property rights to meet their obligations under the Convention. The language is, to say the least, ambiguous and rather clumsy in terms of clarifying the responsibilities of the

---

252. Usdin, *supra* note 247, at 7.

Parties. This stipulation is also linked to the subsequent provisions and to the articles on financial resources and mechanisms in what appears to be a classic example of United Nations "internationalese," the language of apparent consensus which ignores clarity. *The Times* (London) commented that this provision "explicitly drives a coach and horses through existing international patent law" and complained that "[n]o more effective disincentive to gene-splicing and other forms of bio-research could have been devised."<sup>253</sup> However, an alternate perspective was provided by the Ambassador of Ghana who told delegates at UNCED that "developing countries demand that the Convention on biodiversity include legally binding commitments to ensure the link between the access to the genetic materials of developing countries and the transfer of bio-technology and research capabilities from developed countries."<sup>254</sup> President Ali Hassan Mwinyi of Tanzania observed that "[m]any of us in developing countries find it difficult to accept the notion that biodiversity should be considered as the common heritage of mankind, while the flow of biological products from the industrialised countries is patented, expensive and considered as the private property of the firms that produce them. This asymmetry," he said, "expresses the inequality of opportunity and is unjust."<sup>255</sup>

Even more controversial is the next stipulation of the Convention which states that

*Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology . . . for the benefit of both governmental institutions and the private sector of developing countries* (Article 16.4).

Implementing this provision could be quite a challenge. As many developing nations are accustomed to the idea of governmental regulation of the economy to a degree which would be totally unacceptable in North America, this provision reflects a monumental lack of comprehension on the part of developing nation delegates about the limited scope of governments in the North to order the private sector in the manner specified. Geoffrey Hawtin, Director of the International Board for Plant Genetic Resources (IBPGR) in Rome wondered how countries could influence the private sector: "it's hard to imagine U.S. legislation that could encourage the private sector"<sup>256</sup> to imple-

---

253. *Biodegradable Treaty*, THE TIMES (London), June 3, 1992, at 15.

254. Statement by Kofi N. Awoonor, Ambassador of Ghana, UNCED, Rio, June 5, 1992.

255. Statement by Ali Hassan Mwinyi, President, United Republic of Tanzania, UNCED, Rio, June 13, 1992.

256. Paul Raeburn, *IBPGR Director Hawtin Encouraged by BioConvention but Uncertainties Remain*, 8 DIVERSITY 4 (1992).

ment this clause of the Convention. Such provisions unfortunately demonstrate how large is the chasm between North and South with respect to development and now to environmental concerns as well. Although this stipulation meets the Southern agenda, its implementation would cause problems in any market-oriented society which favors private sector production, distribution and exchange. As Michael Roth, Corporate Patent Counsel, Pioneer Hi-Bred International Inc. explained, "we rely heavily on intellectual property rights to protect our products." and he continued: "There is too much language in the convention about making technology available to developing nations, in effect, on an unrestricted basis to make us comfortable that our rights would be protected."<sup>257</sup> The text of this provision of the Convention is so ambiguous and vague that the reader is left wondering whether it really is as threatening as it appears or whether it seeks merely to encourage technology transfer and utilize governmental persuasion to effect that aim. After all it is hard to dispute the fact that there "is a need for gene-rich developing countries to work in tandem with technology-rich developed countries. It forms the basis for a real 'win-win' deal between North and South, based on mutual benefits from cooperation."<sup>258</sup> It is important to note that this stipulation in the Convention is linked to the initial recognition of the protection of intellectual property rights specified in Article 16.2 but is similarly also connected with the possible limitation of such rights implicit in Article 16.3. The convoluted language and the references to seemingly divergent aims reflected in different clauses make analysis of the technology transfer provisions a real challenge.

Mostafa Tolba, former Executive Director of the United Nations Environment Programme provided a rationale for the inclusion of a provision affecting the private sector:

New technologies are mostly patented. International transfer of biotechnology has been limited largely to the transfer of technology from the public sector in developed countries to the public sector in developing countries. Given the substantial private sector investments largely in funding Research and Development in modern biotechnology, the private sector undoubtedly possesses new technologies that could be usefully applied or adapted to developing country needs.<sup>259</sup>

Even more challenging is the next part of this very controversial

---

257. Usdin, *supra* note 247, at 7.

258. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, Third Session Ad Hoc Working Group of Experts on Biological Diversity, Geneva, July 9, 1990.

259. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, second session Ad Hoc Working Group of Experts on Biological Diversity, Geneva Feb. 19-23, 1990.

article on technology transfer:

*The Contracting Parties, recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives. (Article 16.5)*

This stipulation, when considered with the previous directions to states to take legislative and administrative policy measures to facilitate implementation of the Convention, appears to suggest that intellectual property rights ought eventually to sustain the fundamental principles of the Convention and not restrict or hinder them. If this is the intent, the phrase *subject to national legislation* presumably refers to future legislation which would accommodate the provisions of this Convention. The inference is that eventually the Convention, being international law, will take priority over national legislation unless the latter is brought into line with the provisions of the Convention. The clause, as it stands, would pose quite a challenge to anyone seeking to implement it because it appears to be almost self-contradictory. As Russell Frye comments, "[t]he uncertainty regarding how the Biodiversity Convention might be implemented may be at the root of the critics' objections."<sup>260</sup>

The Convention's silence on the crucial issue of ownership of genetic resources collected before its enactment could pose some problems in the future. The issue was considered by Geoffrey Hawtin, Director of the International Board for Plant Genetic Resources in Rome who suggested that on the basis of one interpretation, such earlier collections would simply be outside the Convention or alternatively, "if you sign the Convention, the only materials you can provide are those that originated in your country or arrived there under the terms of the Convention."<sup>261</sup> A further complexity might occur when some "breeding materials could combine germplasm from seeds collected in many nations."<sup>262</sup>

Another problem which will have to be considered is whether the governments of democratic, capitalist states can restrict intellectual property rights to the extent required by this Convention without arousing considerable hostility from their legislatures and from the affected community of scientists, academics and corporations engaged in research. The hurdles are by no means insurmountable. As Al Gore suggests, "the model . . . comes from the U.S. government

---

260. Frye, *supra* note 181, at 344.

261. Raeburn, *supra* note 256, at 4.

262. *Id.*

itself, which has technology-transfer programs that provide the federal government royalty-free use of inventions developed by companies from government-funded and owned research and data."<sup>263</sup> Walter Reid of the World Resources Institute also sees a positive future because the Convention will "stimulate the adoption of stronger intellectual property rights within developing countries. He explains:

One of the reasons for the U.S. decision not to sign the convention was that it would weaken intellectual property rights. However, by creating conditions for increased use of biodiversity in developing countries, many countries will now choose to establish and strengthen intellectual property rights for biological resources, because now they have something to gain. This will now take place not because they're being forced through trade agreements to strengthen intellectual property rights but because now they can see it's in their own self-interest.<sup>264</sup>

Arthur Campeau, now Canada's Ambassador for Sustainable Development has commented on this issue of intellectual property rights that,

the convention specifically works to protect, not diminish, the intellectual property rights of manufacturers. I raise this point because it was the major reason given by the United States for its decision not to sign this convention. In deference, I believe that they are wrong and that their own industries and the new administration will see this issue differently.<sup>265</sup>

Ever the optimist, Maurice Strong, Secretary-General of UNCED indicated that he had not lost hope because President Bush had not signed the Convention and added: "I hope that they will take a second look at it."<sup>266</sup> If the present Administration of the United States wants to end the nation's isolation with respect to this very important Convention, then it will probably sign it in the near future and work to amend some of the ambiguities and inherent contradictions in its text. Certainly, if a number of developing countries proceed to tighten their legislation protecting intellectual property rights, that would go far to alleviating many of the anxieties in the United States about this Convention. Richard Wilder, who is a pat-

---

263. Gore, *supra* note 178.

264. Testimony of Walter Reid, Vice President World Resources Institute, Canadian House of Commons Standing Committee on Environment, House of Commons, Issue No. 47, Nov. 23, 1992, Third Session, 34th Parliament, 1991-1992.

265. Testimony of Arthur Campeau, Personal Representative of the Canadian Prime Minister to UNCED, before the Canadian House of Commons Standing Committee on Environment, November 23, 1992, Third Session, 34th Parliament, 1991-1992.

266. Michael McCarthy, *Railwayman's Son Signals Greener Lines For Growth*, THE TIMES (London), June 3, 1992, at 12.

ent attorney and spokesman for the Association of Biotechnology Companies suggested that unfortunately the delegations from countries with a very negative view of intellectual property, particularly those from India and Malaysia, had the most influence over the wording of the Convention on Biological Diversity.<sup>267</sup> An alternate viewpoint comes from M.S. Swaminathan, World Food Prize Laureate who explained that at Rio, "[p]atent protection rather than promoting a better quality of life for the poor became the major obsession."<sup>268</sup> If the developing world can in future be perceived as cooperating in the process of protecting patents and copyrights to a much larger degree than is now the case, then opponents of this Convention in the United States will have much less to complain about. Technology transfer, acknowledging intellectual property rights, under a system of international law which is mutually respected by both the donor and the recipient would be the best situation to facilitate the concept of sharing, so important an aspect of this Convention. As Thomas Lovejoy of the Smithsonian Institution suggests, the idea is "to start thinking about the problem as a joint venture in which both sides have property rights."<sup>269</sup>

The concerns of the United States negotiators involved "first, intellectual property rights; second, biotechnology safety regulation; and third, the financial mechanism."<sup>270</sup> Vice President Quayle was accused of objecting "passionately to the treaty's attempts to regulate the handling of genetically modified organisms."<sup>271</sup> However, the Convention only stresses a cautionary approach to ensure that such organisms are safe before they are released into the environment.<sup>272</sup> With respect to safety regulations, the Convention postpones the issue to a future protocol:

*The Parties shall consider the need for and modalities of a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity. (Article 19.3).*

Meanwhile, it also provides for notification about the safety risks involved in use of any agent:

---

267. Usdin, *supra* note 247, at 7.

268. *What They Are Saying*, *supra* note 183, at 8.

269. Philip Elmer-Dewitt, *TIME*, June 1, 1992, at 26.

270. Walter Reid, Vice President World Resources Institute, Testimony before Canadian House of Commons Standing Committee on Environment, Nov. 23, 1992, House of Commons, Issue No.47, Third Session, 34th Parliament, 1991-1992, 47:62.

271. *Biodivisive*, *THE ECONOMIST*, June 13, 1992, at 94.

272. *Id.*

*Each Contracting Party shall, directly or by requiring any natural or legal person under its jurisdiction providing the organisms referred to in paragraph 3 above, provide any available information about the use and safety regulations required by that Contracting Party in handling such organisms, as well as any available information on the potential adverse impact of the specific organisms concerned to the Contracting Party into which those organisms are to be introduced. (Article 19.4)*

Contracting Parties are to *[p]revent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species (Article 8(h)) and regulate the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts (Article 8(g)).*

As this is a safety issue, it would be wise for the United States Government to sign the Convention quickly so that it can have a positive influence on its implementation and on the creation of protocols. One would assume, based on Vice President Gore's dedication to environmental ideals, that the United States will now favor stringent safety regulations to protect its own citizens and those of other nations with respect to the use of biodiversity.

Because the financial provisions of this Convention caused serious consternation in the governments of other developed countries as well as arousing considerable hostility in the Bush Government, I will consider those stipulations in the next section which will deal with the opinions of some of the nations of the North.

## VII. The Developed Nations and the Convention on Biological Diversity

Although the United States bore the brunt of the global hostility over its rejection of the Convention on Biological Diversity, it was not alone in expressing its apprehensions and concerns over aspects of the agreement which was negotiated. A number of developed countries, particularly the United Kingdom had serious reservations about this Convention, particularly about the financial provisions. It was the Canadian delegation, headed by Arthur Campeau which ultimately guaranteed that the Convention would be accepted by the North. Canada not only signed the Convention but promised to ratify it within the year.<sup>273</sup> It has already done so. As Canadian Prime Minister Brian Mulroney said in an address at Harvard University, "Canada's signal and leadership on the biodiversity accord gave the

---

273. Statement by Brian Mulroney, Prime Minister of Canada, UNCED, Rio, June 12, 1992.



agreement significant impetus. And why did we support it? Because it was in our national interest to do so, because we consider that biodiversity is an important aspect of sustainable development and because, quite simply, it covers vital dimensions on life on earth."<sup>274</sup>

The North was clearly divided both before and during Rio. The environmental problems were viewed equally seriously by delegates from all developed countries. However, they could not agree on the same solutions. Eventually, most Northern nations preferred to participate in the Conventions despite their misgivings rather than be isolated from the important process of environmental clean-up. The United States was the only significant holdout with respect to the Biodiversity Convention.<sup>275</sup> It is important to emphasize that many nations of the North had initial problems with the Convention. As Anne McIlroy of Southam News reported on 1st June 1992, the Biodiversity Convention was in serious trouble because of the concerns of the United States, Great Britain, France and Japan,<sup>276</sup> among the developed nations. With the exception of the United States, the other developed nations eventually agreed that it was preferable to sign the Treaty and become participants in the process of conservation of biodiversity. Length constraints preclude a detailed study of each Northern nation and of its views. Basically, in the Rio process, one could not speak of the "North" and imply the same degree of cohesiveness and identity of interest as propelled the developing nations — the "South." The developed countries did not share the same agenda or international priorities in terms of the ideals of UNCED nor did they speak as a unit. They shared misgivings, as for example, regarding the issue of open-ended funding required by the poor nations but it is obvious that each developed country pursued its own interests during the Rio process. The United States, long used to being the leader among developed nations, was clearly upset by the break-away positions some of its allies adopted, especially with respect to the Biodiversity Convention. This section will attempt to analyze the financial provisions of the Convention because these aroused considerable concern among a number of rich countries. It will then very briefly demonstrate some facets of the divergence in opinion which prompted the Europeans, the Canadians and the Japanese to follow a different path from the United States over the biodiversity issue.

As the financial provisions were the main stumbling block to

---

274. Address by Brian Mulroney, Prime Minister of Canada, to the Kennedy School of Government, Harvard University, Dec. 10, 1992.

275. Brooke, *supra* note 212, at 6.

276. Anne McIlroy, *Key Pact On Species Finds Itself Endangered*, VANCOUVER SUN, June 1, 1992, at 1.

universal acceptance it would be worthwhile to examine these articles of the Convention in order to understand both the views of the North and the extent of the political chasm between the North and the South over this all-important issue of funding. With respect to financial provisions, the South established the parameters within which it would be prepared to conserve its valuable biodiversity resource. Because of the vast amount of activity generated by the Convention in terms of identification, monitoring, conserving and protecting biodiversity, the Southern nations know that they can ill afford to fund such extensive measures, many of which are simply beyond the technological capacity, particularly of the least developed countries. Accordingly in demanding funding from the North so that the whole world would continue to enjoy the benefits of biodiversity, the South was only expressing its own inability to finance the actions which alone can keep developers and populations out of protected areas. Even though they retain much of the world's biodiversity, Southern nations are already fighting a defensive war to preserve this resource. Their burgeoning populations cry for space, food, shelter, clothing and consumer products — all of which demand the clearing of forests (the greatest threat to biodiversity), the conversion of land to agriculture, and the building of factories. Hence the war (and it is that now) to save biodiversity will involve restricting development in the South or at least ensuring that development proceeds in a manner which is sustainable within the environment. Southern nations argue that as the North will benefit greatly from the conservation of biodiversity, it ought to pay to preserve the resource so that the South can for once benefit as well. For a more in-depth analysis of the views of the South, I would draw your attention to my earlier article "The South and the Earth Summit: The Development/Environment Dichotomy" also published in *The Dickinson Journal of International Law*.<sup>277</sup>

The Convention on Biological Diversity acknowledged the primacy of the funding issue in its Preamble stating that

*the provision of new and additional financial resources and appropriate access to relevant technologies can be expected to make a substantial difference in the world's ability to address the loss of biological diversity.*

and reiterating that

*special provision is required to meet the needs of developing countries, including the provision of new and additional finan-*

---

277. Ramee K.L. Panjabi, *The South and the Earth Summit: The Development/Environment Dichotomy*, 11 DICK. J. INT'L L. 77 (1992).

*cial resources and appropriate access to relevant technologies*  
(Preamble).

The issue of *appropriate funding* (Article 1) is again referred to in the Objectives of the Convention. Contracting Parties are also asked to *cooperate in providing financial and other support for in-situ conservation . . . particularly to developing countries* (Article 8(m)). A similar provision refers to funding for ex-situ conservation and for the *establishment and maintenance of ex-situ conservation facilities in developing countries* (Article 9(e)). The obligations of States are qualified with phrases like *as far as possible* and *as appropriate*. Hence the Convention is not as mandatory as its critics allege. Walter Reid of the World Resources Institute provides one explanation for this:

the language in the convention is rather weak. I think this is largely due to the U.S. negotiating position. Almost all the obligations accepted by nations are prefaced with the wording, "as far as possible" and "as appropriate", which gives a tremendous amount of wiggle room for governments to avoid doing some of what is intended by the convention.<sup>278</sup>

It could be argued that the financial stipulations which have caused so much anxiety in developed country governments, are probably too weak to be really effective. Contracting Parties will fund their national activities on the basis of their capability, a provision which allows countries to plead economic reasons for non-performance.

*Each Contracting Party undertakes to provide, in accordance with its capabilities, financial support and incentives in respect of those national activities which are intended to achieve the objectives of this Convention, in accordance with its national plans, priorities and programmes.* (Article 20.1)

In an extremely clumsy paragraph, the Convention specifies the main financial obligations of the North to the South:

*The developed country Parties shall provide new and additional financial resources to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures which fulfil the obligations of this Convention and to benefit from its provisions and which costs are agreed between a developing country Party and the institutional structure referred to in Article 21, in accordance with policy, strategy, programme priorities and eligibility criteria and an indicative list*

---

278. Testimony of Walter Reid, Vice President, World Resources Institute, before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, Issue No. 47, Third Session, 34th Parliament, 1991-1992.

*of incremental costs established by the Conference of the Parties . . . .*

*The implementation of these commitments shall take into account the need for adequacy, predictability and timely flow of funds and the importance of burden-sharing among the Contributing Parties (Article 20.2).*

Article 21 referred to above includes the provisions for the financial mechanism and will be analyzed later in this section. The Convention leaves the door open for bilateral, regional and multilateral schemes to fund projects for developing countries (Article 20.3). It also emphasizes the *specific needs and special situation of least developed countries* (Article 20.5), *small island states* (Article 20.6) and those developing country regions *that are most environmentally vulnerable, such as those with arid and semi-arid zones, coastal and mountainous areas* (Article 20.7).

The Convention makes Southern implementation contingent on Northern funding in a very significant provision:

*The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties. (Article 20.4)*

This provision weighs heavily in favor of developing countries and is clearly at the expense of the North. It also reflects the reality of the new post-Cold War era which has seen rich nations pitted against poor countries in a intense confrontation which springs up every time an issue of global significance is debated. Indeed, the North-South confrontation now dominates most international fora and has become a major factor to consider in environmental issues. The poor countries, with the majority of the world's population are simply not willing to remain poor any longer nor do they see why they ought to curb their development to enable the rich nations — the world's worst polluters — to continue to degrade the environment without paying monetarily for the right to do so. Therefore, "[t]he poor countries say they will only tailor their development to meet environmental goals if the rich pay the costs of doing so."<sup>279</sup> The entire issue of protecting biodiversity became bogged down with the political ramifications of the North-South controversy over funding. As Robert C. Cowen explained in *The Christian Science Monitor*, "[t]he

---

279. Paul Lewis, *Poor vs. Rich in Rio*, N.Y. TIMES, June 3, 1992, at A12.

poor nations ask the rich for substantial financial help with the research and conservation needed to preserve biodiversity. Rich nations balk at paying the lion's share of the bill."<sup>280</sup> The provision on contingent implementation in the Biodiversity Convention reflects the attempt to link ecological improvement with eradication of poverty as twin approaches to the cause of creating a new world order.

Although the North-South conflict still prevails in international economic and environmental discussions, there is a growing public realization in the developed world that measures have to be taken to alleviate the misery and poverty of the majority of the world's population. This is no longer merely an idealistic aim. It is now increasingly perceived as the ultimate form of self-interest for the developed world.<sup>281</sup> It was this recognition, at the public level, which compelled governments like that of the United Kingdom to sign the Convention "against their better judgment."<sup>282</sup> The challenge for the future will be in the implementation of its funding provisions particularly when governments in the developed nations have to allocate funding and make decisions whether priorities should dictate domestic economic improvement or third world aid with, hopefully, global environmental clean-up as a bonus. Brad Knickerbocker also suggests that "there is a vast difference between the 'needs' of those in developing countries and the 'wants' that people in more advanced industrialized nations have gotten used to."<sup>283</sup>

The most controversial financial clauses were those which delineated the mechanism for the provision of funding from the North to the South. United States officials objected that these provisions could "enable developing countries to extract limitless funds from wealthy nations for preserving endangered species."<sup>284</sup> The Treasury Department of the Government of the United Kingdom was equally apprehensive about provisions which would "allow the world's poorer nations to present industrialised countries with an open-ended bill for preserving their plant and animal life."<sup>285</sup> It would be worthwhile to examine the controversial clauses to assess the validity of the fears of the developed countries:

*There shall be a mechanism for the provision of financial resources to developing country Parties for purposes of this Convention on a grant or concessional basis the essential elements*

---

280. Robert C. Cowen, *Helping Poor Nations Preserve Biodiversity*, CHRISTIAN SCI. MONITOR, Mar. 25, 1992, at 13.

281. See Ranee K.L. Panjabi, *Idealism and Self-Interest in International Environmental Law: The Rio Dilemma*, 23 CAL. W. INT'L L.J. 177-98 (1992).

282. *Rio's Green Fringe*, THE TIMES (London), June 11, 1992, at 17.

283. Brad Knickerbocker, *Economic Growth That Meets Present and Future Needs*, CHRISTIAN SCI. MONITOR, June 2, 1992, at 11.

284. Fletcher & Oakley, *supra* note 188, at 1.

285. McCarthy & Oakley, *supra* note 187, at 1.

*of which are described in this Article. The mechanism shall function under the authority and guidance of and be accountable to, the Conference of the Parties for purposes of this Convention. The operations of the mechanism shall be carried out by such institutional structure as may be decided upon by the Conference of the Parties at its first meeting. For purposes of this Convention, the Conference of the Parties shall determine the policy, strategy, programme priorities and eligibility criteria relating to the access to and utilization of such resources. The contributions shall be such as to take into account the need for predictability, adequacy and timely flow of funds . . . in accordance with the amount of resources needed to be decided periodically by the Conference of the Parties and the importance of burden-sharing among the contributing Parties . . . . The mechanism shall operate within a democratic and transparent system of governance. (Article 21.1)*

Essentially, this provision brings the financial mechanism under the authority of the Conference of the Parties, where, presumably, developing countries will dominate by sheer numbers. The Conference will decide its own priorities concerning utilization of the funding so developing countries will obviously have considerable weight in determining how the money will be spent and where the emphasis of biodiversity conservation will lie. The developed world is obliged to consider that its funding has to meet the standards of predictability, adequacy and timeliness. Most controversial of all, the Conference of the Parties will determine the amount of resources required. The financial mechanism will be operated democratically which would again imply a considerable amount of developing world input into the process. A further provision gives the Conference of the Parties authority to *determine the policy, strategy and programme priorities, as well as detailed criteria and guidelines for eligibility for access to and utilization of the financial resources including monitoring and evaluation on a regular basis of such utilization* (Article 21.2). The financial mechanism will be subject to periodic review (Article 21.3). On an interim basis the Convention entrusts financial implementation to a restructured Global Environment Facility of the United Nations Development Programme, the United Nations Environment Programme and the International Bank for Reconstruction and Development (Article 39).

President Bush complained that "the text gave the developing countries too much say in deciding the treaty's aid provisions. There is concern that the money intended to preserve rare species might be misused by Third World regimes."<sup>286</sup> *The Times* (London) reported

---

286. Michael McCarthy and Nicholas Wood, *British Doubts Threaten Rio Treaty Sign-*

that the British Prime Minister "would like to ensure that money for environmental purposes went to the underdeveloped countries and not to their politicians."<sup>287</sup> United States opposition was clearly having an influence with the British Government. This led environmentalists and the Opposition in the British Parliament to insist that the United Kingdom sign. Simon Hughes, spokesman for the Liberal Democrats tabled a motion of no confidence in the government.<sup>288</sup> David Blunkett, shadow environment minister for the Labour opposition bluntly said, "if the British government follows the US in refusing to sign . . . it will have committed an act of betrayal against future generations, for which it must stand condemned."<sup>289</sup> Bryan Gould, environment spokesman for the Labour Party "accused the United Kingdom of colluding with the Americans in 'frustrating the world's environmental agenda.' The move was part of a complex game plan to wreck the conference and ensure that nothing came out of the summit other than hot air, 'the last thing the planet now needs' " he is reported to have said.<sup>290</sup>

Gordon Shepherd of the World Wide Fund for Nature also insisted that "Mr. Major [Prime Minister of the United Kingdom] must sign the bio-diversity treaty, regardless of what President Bush does. The world can live without the US signing this treaty, but it cannot live with the extinction of species which is continuing all the time."<sup>291</sup> Robin Pellew, Director of the World Conservation Monitoring Centre, Julie Hill of the Green Alliance and Fiona Reynolds of the Council for the Protection of Rural England expressed serious concern about the hesitation of the British Government and suggested that "[f]or the UK to surrender its participation would be to abrogate its responsibilities in the international environmental arena."<sup>292</sup> Pellew and his colleagues expressed an apprehension that non-participation would marginalise the United Kingdom in the implementation process.<sup>293</sup> Ultimately, the British Prime Minister, who was really "over a political barrel,"<sup>294</sup> was forced to swallow his objections as he found it "politically impossible to avoid signing the treaty."<sup>295</sup>

The British Government rejected the accusation that it was at-

---

ing, THE TIMES (London), June 1, 1992, at 1.

287. Robin Oakley, *Major Ready To Sign Biodiversity Treaty*, THE TIMES (London), June 8, 1992, at 12.

288. *Id.*

289. McCarthy & Wood, *supra* note 286, at 1.

290. Jill Sherman, *Howard Rejects Blank Cheque*, THE TIMES (London), June 4, 1992, at 8.

291. McCarthy & Wood, *supra* note 286, at 1.

292. Letter by Robin Pellew et al, THE TIMES (London), June 4, 1992, at 15.

293. *Id.*

294. *Biodegradable Treaty*, THE TIMES (London), June 3, 1992, at 15.

295. Oakley, *supra* note 287, at 12.

tempting to protect American interests<sup>296</sup> and explained that it was mainly concerned that the financial mechanism, controlled by the Conference of the Parties would entail major funding demands in a forum where developed countries would always be outvoted. Prime Minister Major explained that his nation could not support an "open-ended commitment" of financial aid for developing nations.<sup>297</sup> His Secretary of State for Environment, Michael Howard warned that the United Kingdom "was not prepared to sign a blank cheque for the biodiversity deal."<sup>298</sup> Howard clarified his government's position at UNCED, "[w]hen a government signs a convention it is not simply committing itself to broad principles. It is committing itself to a text which entails binding obligations to act. So we have had to scrutinize that text with care."<sup>299</sup>

It was believed in the governments of many developed countries that the rather vague language of the financial mechanism provisions could entail an enormous aid obligation for the approximately 19 aid donor nations, members of the Organisation for Economic Cooperation and Development (O.E.C.D.).<sup>300</sup> With respect to the controversial provisions of Article 21, 19 members of the O.E.C.D. issued a declaration after negotiations for the Convention ended in Nairobi in May 1992 "giving their view that this provision should not be interpreted as enabling the Conference of the Parties to the Convention to determine the amount of individual contributions to be provided by the donor countries."<sup>301</sup>

Britain remained nervous about the overall financial implications of the bio-diversity treaty. It was still seeking the attachment of a financial protocol limiting the power of the Third World effectively to raise an environmental levy on the industrialised nations at a level of its choice.<sup>302</sup>

A spokeswoman for the United Kingdom Environment Department explained that Britain "could go on pouring money into a bottomless pit."<sup>303</sup> Another apprehension related to the absence of a veto for developed nations on financial decisions of the Conference. "Nor will the piper call the tune when the money thus extracted is spent," commented *The Times* and continued "[d]ecisions on conservation

---

296. Sherman, *supra* note 290, at 8.

297. McCarthy & Oakley, *supra* note 187, at 1.

298. Sherman, *supra* note 290, at 8.

299. Statement by Michael Howard, Secretary of State for Env't, United Kingdom, UNCED, Rio, June 9, 1992.

300. McCarthy & Oakley, *supra* note 187, at 1.

301. *Convention on Biological Diversity*, British Information Services News Release, June 10, 1992.

302. Oakley, *supra* note 287, at 12.

303. Robin Oakley & David Watts, *Rio Summit*, THE TIMES (London), June 3, 1992, at 12.



strategies and priorities, on who gets this money and how it is used would also be taken by 'democratic' means."<sup>304</sup> Despite its critical approach, *The Times* argued, that "[e]ven weakened conventions can lead to stronger ones" and stated that

[t]he way would be open under the bio-diversity convention to reward poor countries for preserving the natural gene pool, including the possible payment of royalties on commercially useful development of genetic resources. The principle. . . must be that [it is] not a back door for yet more aid but a payment for better world conservation.<sup>305</sup>

Michael Howard, United Kingdom Secretary of State for the Environment attempted to put an optimistic face on the British position by suggesting that "[w]e are now satisfied that means can be found within the Convention to ensure that no country is obliged to contribute an open-ended blank cheque to implement it."<sup>306</sup> The way out of the dilemma was found in another provision of the Convention, Article 23 which states that the *Conference of the Parties shall by consensus agree upon and adopt rules of procedure for itself and for any subsidiary body it may establish*. The developed nations could utilize this consensus rule to ensure an effective voice in the proceedings of the Conference of the Parties despite their small number relative to the more numerous developing nations. Walter Reid of the World Resources Institute explains how this consensus provision could protect the interests of the North: "By establishing in article 23, rules of procedure based on consensus, the convention protects any country from financial commitments that are not in its own interest. So the U.S. concern about the financial mechanism also is not founded."<sup>307</sup> In an official news release the Government of the United Kingdom noted with reference to the provision on rules of procedure that "it will be possible to argue that decisions on financial issues arising under the Convention should themselves be subject to consensus so as to avoid the danger of financial obligations being imposed on us beyond what we are prepared to agree."<sup>308</sup>

Faced with a storm of hostility from environmentalists and elements of the media, the Americans and their British allies expressed their criticism of those developed nation governments which were supportive of the Convention. The Bush Administration "accused Germany and Japan in particular of capitulation to 'political correct-

---

304. *Biodegradable Treaty*, *supra* note 294, at 15.

305. *A Bargain Not A Whinge*, *THE TIMES* (London), June 1, 1992, at 15.

306. *Convention on Biological Diversity*, *supra* note 301.

307. Walter Reid, Vice President, World Resources Institute, Testimony before Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, Issue No. 47, Third Session, 34th Parliament, 1991-1992, 47:62.

308. *Convention on Biological Diversity*, *supra* note 301.

ness' and the 'guilty developed-world' argument that wealthy nations somehow 'owe the rest of the world'.<sup>309</sup> White House officials were reported to have "attacked America's 'holier-than-thou' allies for paying lip service to environmentalism, signing treaties they had no intention of complying with and making America the world's scapegoat."<sup>310</sup> There was resentment as well in the British Government about some European Community nations being "willing to sign up blithely to agreements which will never be implemented and which they have no intention of honouring rather than putting work into securing deals which have some chance of actually being put into effect."<sup>311</sup> An official at Whitehall was quoted by *The Times* complaining about the cavalier attitude of some other countries.<sup>312</sup>

*The Irish Times* interpreted this emerging tension between the developed nations as a conflict "over influence in the Third World after the end of the Cold War" and commented that "[a] notable feature of the conference has been the developing friction between the major western powers attending it, especially the U.S., the European Community and Japan. White House spokesmen have been vitriolic in their criticisms of Japan and Germany for their 'politically correct' approach to some of these issues."<sup>313</sup> Richard Godown, President of the Industrial Biotechnology Association suggested that the signatures by other developed countries were "just a public relations ploy."<sup>314</sup> It was clear that in signing the Biodiversity Convention, nations like Canada, Germany and Japan had "broken with the United States,"<sup>315</sup> a fact which angered the Republicans, one of whom commented bitterly that

Japan's out there killing whales and running driftnets, for God's sake, while we've got the world's toughest environmental laws and we're twisting ourselves into knots over how many jobs to abolish to save a subspecies of owl. . . . And these guys presume to lecture us about environmental responsibility.<sup>316</sup>

Some of the United States criticism was unjustified because serious efforts were made by the Europeans to find some way of accommodating the American objections to the Convention. Member States of the European Community offered "the Bush Administra-

---

309. Martin Fletcher & Michael McCarthy, *Major Flies Into Storm Over the Environment*, THE TIMES (London), June 11, 1992, at 15.

310. *Id.*

311. Robin Oakley, *Middle-Man Major Takes Role of Realist*, THE TIMES (London), June 2, 1992, at 10.

312. *Id.*

313. *Down To Earth*, IRISH TIMES, June 11, 1992, at 11.

314. Usdin, *supra* note 176, at 8.

315. *U.S. Strikes Back At Its Critics*, N.Y. TIMES, June 10, 1992, at A8.

316. *Bush and Rio: Taking an Uncomfortable New Role*, N.Y. TIMES, June 11, 1992, at A12 [hereinafter *Bush and Rio*].

tion a face-saving way of signing the convention on biodiversity by agreeing to make a statement setting out their own interpretation of contentious clauses."<sup>317</sup> William Stevens of *The New York Times* reported that the initiative for this effort came from Britain, France and Japan, the plan including signature and a statement of interpretation.<sup>318</sup> However, as Paul Lewis reported in *The New York Times*, the White House showed no interest in the idea.<sup>319</sup> European Community Spokesman, Laurens Jan Brinkhorst, said in Rio that the Community regretted the isolation of the United States and added, "We don't want a slugging match of everybody against the United States."<sup>320</sup>

The decision by other developed nations to break ranks with the United States was only partly motivated by the domestic pressure they felt from their own environmental activists. Ultimately, these nations signed because they realized that it was in their self-interest to do so. In the early days of UNCED, it was assumed that Japan might not sign the Convention because of the restrictions on its pharmaceutical industry.<sup>321</sup> However, any doubts about the financial provisions or the issue of intellectual property rights were of less significance than the fact that nations like Germany and Japan are world leaders in environmental technology<sup>322</sup> and stand to gain financially when the developing world proceeds towards implementation of the Convention. Clearly, there will be enormous profits for companies developing clean "technologies that could be adopted throughout the world."<sup>323</sup> It was most unfortunate that the Government of the United States did not perceive the economic benefits of participation in the Treaty and looked instead only at its apparent flaws.

The Japanese were also able to convert their attendance at Rio into a public relations success which served as a vivid contrast to the American role at UNCED. Former Prime Minister Noburo Takeshita suggested that "[d]emonstrating leadership to solve the global environmental problem must be the pillar of Japan's role in the international community."<sup>324</sup> The Japanese delegation (over 100 officials) to UNCED was more than twice the size of the American delegation (45 officials)<sup>325</sup> and indicative of the different emphasis

---

317. Paul Lewis, *U.S. at the Earth Summit: Isolated and Challenged*, N.Y. TIMES, June 10, 1992, at A8.

318. William K. Stevens, *Bush Plan To Save Forests Is Blocked By Poor Countries*, N.Y. TIMES, June 9, 1992, at 1.

319. Lewis, *supra* note 317, at A8.

320. *Japan, EC To Endorse Biodiversity Treaty*, JAPAN TIMES, June 8, 1992, at 1.

321. EARTH SUMMIT BULL., June 1, 1992, at 2.

322. Lewis, *supra* note 317, at A8.

323. *Bush and Rio*, *supra* note 316, at A12.

324. Clayton Jones, *Japan Follows US In Scaled-Back Role For Rio*, CHRISTIAN SCI. MONITOR, June 1, 1992, at 4.

325. Lewis, *supra* note 319, at A8.

placed on environmental issues by these two great economic powers. With an obvious eye on the economic benefits for Japanese companies, Japan's Minister in Charge of Global Environment, Shozaburo Nakamura announced that Japan would host the United Nations Environment Programme's Environmental Technology Center. The "Center's main objective," he informed delegates at UNCED, "is to promote the transfer of environmentally sound technologies and know-how to developing countries."<sup>326</sup> The market for environmental goods and services is estimated to be worth at least \$200 billion and forecasts by the Organization for Economic Cooperation and Development project an increase in value to \$300 billion by the year 2000.<sup>327</sup> Japan also proudly announced the passage of domestic legislation, an Endangered Species Law.<sup>328</sup>

Despite their overt enthusiasm for environmental reform on a global scale, the delegates of most developed countries and the numerous environmentalists who were watching the formulation and acceptance of the Convention from the sidelines shared some misgivings about the Treaty. The Japanese, for instance "wanted clearer terms on how money would be spent under the treaty."<sup>329</sup> Environmental lobbyist for the World Wildlife Fund, Alistair Graham bemoaned the fact that the treaty lacks real teeth and pointed to the innumerable qualifying phrases in the text,<sup>330</sup> especially prominent in the activity-oriented clauses. The Convention makes no provision for sanctions against any Contracting Party which violates its terms. Given the politicized nature of the negotiation process, any punitive measures were unlikely. Implementation will therefore be largely a voluntary activity, given the large number of qualifiers added to the obligations of the Convention. Bruce Babbitt, now U.S. Secretary of the Interior, lamented the absence of sanctions stating, "[t]he very concept of a biodiversity treaty necessarily implies some limitation of a nation's claim to an absolute right to slaughter whales, burn forests, or drive animal species to extinction."<sup>331</sup> While the view has some validity, its feasibility in the international law scenario is somewhat questionable. Initial formulations of international law tend to be somewhat vague and permissive and the expectation is that objectives and targets will be negotiated in subsequent protocols. This

---

326. Statement by Shozaburo Nakamura, Minister in Charge of Global Env't, Japan, UNCED, Rio, June 5, 1992.

327. Reuter-Kyodo, *Japan's Green Industry Called Altruistic*, JAPAN TIMES, June 12, 1992, at 3.

328. Statement by Shozaburo Nakamura, *supra* note 326.

329. Robert M. Press, *Biodiversity Pact Ready For Ink at Earth Summit*, CHRISTIAN SCI. MONITOR, May 26, 1992, at 3.

330. *Id.*

331. Bruce Babbitt, *There is No Turning Back After Rio*, WORLD MONITOR, June 30, 1992, at 33.

Convention may also proceed to become much stronger once the Conference of the Parties meets and the process of negotiation of further protocols emerges. The immediate challenge will be to ratify the Convention and begin the process of implementation, as Arthur Campeau, Canada's Ambassador for Sustainable Development said, "to get on with the job."<sup>332</sup> Wolfgang Burhenne, Legal Advisor to the International Union for the Conservation of Nature and Natural Resources (IUCN) articulated the thoughts of many delegates and environmentalists when he said:

It was difficult to conclude the Convention; it will, perhaps be more difficult to implement it meaningfully. One thing is certain; if the developed world does not honour what it has (reluctantly) agreed to, the Convention will remain a paper tiger. We should do all we can to make a success of this unique chance to view biological diversity globally.<sup>333</sup>

Generally, the developed countries appeared to share the view that despite its obvious flaws, the Convention on Biological Diversity committed the world to an environmental conservation activity which was far more important than either political or financial considerations. Rob Storey, New Zealand's Minister for the Environment underlined the practical advantage of the Convention when he told colleagues at UNCED that "[o]ur economic development is based almost entirely on species and genetic material introduced from other countries. For this reason, we understand the need for the closest possible cooperation between all countries."<sup>334</sup> Per Stig Moller, Denmark's Minister for the Environment emphasized the positive achievements of the Convention:

For the first time we have been able to address the issues related to access to genetic resources and related to bio-safety on a global scale and in legal language. We also think the convention reflects a good and fair balance between the interests of the developing world and the developed world. It has good prospects of starting a process that will gradually lead to stronger commitments.<sup>335</sup>

Chancellor Helmut Kohl of Germany stressed the role of the Conventions on Biological Diversity and Climate Change in contributing

---

332. Arthur Campeau, Ambassador for Sustainable Development, Canada, telephone discussion with author April 1993.

333. Wolfgang E. Burhenne, *Biodiversity — The Legal Aspects*, 22 ENVTL. POL'Y & L. 325 (1992).

334. Statement by Rob Storey, Minister for the Env't, New Zealand, UNCED, Rio, June 11, 1992.

335. Statement by Per Stig Moller, Minister for the Env't, Denmark, UNCED, Rio, June 9, 1992.

to "a more effective global protection of the environment."<sup>336</sup> Spain, seeing yet another opportunity arising from the Convention, applied to host the Secretariat of the Convention.<sup>337</sup> Ruth Feldgrill-Zankel, Austria's Minister of Environment, admitted that the Convention was very general in some provisions but nevertheless it represented "a first important step in the right direction."<sup>338</sup> Expressing his support for the Convention, President Mitterand of France still expressed his preference for "bolder commitments."<sup>339</sup> Though regretting the absence in the Convention of a list of ecological zones requiring protection,<sup>340</sup> French Environment Minister, Segolene Royal expressed support for the Convention provided it was seen "only as the first stage of an effort to protect the diversity of the world's plant and animal life."<sup>341</sup> This perception of the Treaty as a first step was shared by Michael Smith, Ireland's Minister for the Environment.<sup>342</sup> *The Japan Times* commented that "[f]ive years ago, the idea of global leaders signing [a] convention . . . to . . . slow the extinction of species seemed unrealistic. Now such actions are considered insufficient by most leaders."<sup>343</sup> President Mitterand also emphasized the responsibility of the countries of the North to "restore their own environment" and to "refrain from doing anything detrimental to the environment of the countries of the South."<sup>344</sup> Finland's Minister for Foreign Affairs, Paavo Vayrynen pointed to the need for "internationally binding agreements which redirect development in individual nations."<sup>345</sup> Norway's Minister of Environment, Thorbjorn Berntsen expressed his belief that the resort to national action plans in the Convention would provide "the necessary flexibility to be able to adapt measures, strategies and policies

---

336. Statement by Helmut Kohl, Chancellor, Federal Republic of Germany, UNCED, Rio, June 12, 1992.

337. Statement by Minister of Public Works and Transport, Spain, UNCED, Rio, June 10, 1992.

338. Statement by Ruth Feldgrill-Zankel, Minister of Env't, Austria, UNCED, Rio, June 5, 1992.

339. Statement by Francois Mitterand, President, France, UNCED, Rio, June 13, 1992.

340. Statement in French by Segolene Royal, Minister for Env't, France, UNCED, Rio, June 4, 1992. Translation by author. The Kuala Lumpur Declaration, signed after the Second Ministerial Conference of Developing Countries on Env't and Development, Apr. 26-29, 1992, contains the following provision on biodiversity: "We are of the view that providing a 'Global List of Biogeographic Areas of Global Importance' under the Convention on Biological Diversity is not necessary." Doc. No. SMCED/MC/DOC.2.

341. Dennis Bueckert, *Split Surfaces on Global Warming*, CHRONICLE-HERALD (Halifax, Canada), June 5, 1992, at 1.

342. Statement by Michael Smith, Minister of the Environment, Ireland, UNCED, Rio, June 10, 1992.

343. Naoya Sugio & Alex Steffen, *Shortcomings Aside, Earth Summit Seen As Turning Point*, JAPAN TIMES, June 16, 1992, at 12.

344. Statement by Francois Mitterand, President, France, UNCED, Rio, June 13, 1992.

345. Statement by Paavo Vayrynen, Minister for Foreign Affairs, Finland, UNCED, Rio, June 10, 1992.

to national and local circumstances."<sup>346</sup> Calling the Convention an "important milestone" Berntsen went on to add that "[t]his convention is not just an agreement on protection, but also covers the *use* of biological resources. Equally important, the Convention creates a framework for fair and equitable sharing of scientific results and other benefits arising from genetic resources. This gives an economic value to biological resources, which will constitute a powerful incentive to protect these resources."<sup>347</sup> Andreas Gavrielides, Minister of Agriculture and Natural Resources for Cyprus stressed the vital international concern involved in the issue,<sup>348</sup> while Sweden's Minister of the Environment, Olof Johansson concentrated on the importance of a more "equitable distribution of resources between nations."<sup>349</sup>

Speaking as President of the European Community, the Prime Minister of Portugal, Anibal Cavaco Silva admitted that the Convention fell short of initial expectations but suggested, optimistically that

it incorporates a series of measures which constitute a solid basis for future progress in this area. In addition to its fundamental role in the conservation of biological diversity, it is very positive that the Convention in question has recognized the principles of safeguarding legitimate national interests and of the common, shared responsibility which should prevail in relations between states in matters regarding the very survival of the planet.<sup>350</sup>

In signing the Convention, the European Community attached a statement of interpretation expressing regret about the inadequacy of environmental objectives. The statement also called for "further tightening-up later; the need for strict respect of the financing provisions; and the need to respect intellectual property rights."<sup>351</sup>

Developed nations found a sufficient number of advantages to participating in the process of conservation established by this Convention. Hopefully, the new Administration in Washington will soon agree with its colleagues from the North that the tangible benefits from joining the Convention and the economic profits which may accrue to Contracting Parties from the developed world are not factors to be easily overlooked or ignored. The related issue of foreign aid

---

346. Statement by Thorbjorn Berntsen, Minister of Env't, Norway, UNCED, Rio, June 4, 1992.

347. *Id.*

348. Statement by Andreas Gavrielides, Minister of Agriculture and Natural Resources, Cyprus, UNCED, Rio, June 10, 1992.

349. Statement by Olof Johansson, Minister of the Env't and Natural Resources, Sweden, UNCED, Rio, June 8, 1992.

350. Statement by Anibal Cavaco Silva, Prime Minister of Portugal, President of the European Community, UNCED, Rio, June 12, 1992.

351. *Convention on Biological Diversity Signed*, 22 ENVTL. POL'Y & L. 207 (Aug. 1992).

for environmental purposes will be considered in the next section.

### VIII. The Developing Nations and the Convention on Biological Diversity

There can be no doubt that this Convention marked a significant break-through for the poor nations of the world in terms of international recognition of their rights environmentally, economically and developmentally. The Convention on Biological Diversity was, in terms of the agenda of the South, the strongest document to emerge from the entire Rio process for creating a new world environmentally. The South has now obtained acknowledgment from the North that its rich biodiversity is a vital resource for the world; that developing nations have property rights in this resource, rights which extend beyond their national boundaries to encompass any external utilization of biodiversity. Most important of all, the rich nations have pledged financial assistance to enable the poor countries which own the resource to develop their own conservation and protection programs and to share in the benefits of any development of biodiversity. It is clear that

[a]s a sovereign national resource, biodiversity now becomes an asset for developing and developed countries alike. The convention thus creates an economic incentive to conserve biodiversity that can be added to the ethical imperative that most nations share.<sup>352</sup>

The most important benefit of the negotiating process which led to the formulation of this Convention was in publicizing the cause of conservation of this vital resource. At UNCED, delegates from an amazing variety of developing nations emphasized the significance of their biodiversity as a vital resource. The Governor General of Papua New Guinea, Sir Wiwa Korowi told delegates that 80 percent of his population depend on the utilization of these resources and hence his country has incorporated the importance of biodiversity in its National Constitution.<sup>353</sup> Vincent Perera, Sri Lanka's Minister of Environment highlighted the significance of the southwest area of his nation because it "has one of the highest concentrations of biological diversity seen anywhere in the world," though the "gene-rich southwest part of the country has been subject to heavy timber exploitation and deforestation in the past."<sup>354</sup> He indicated that Sri Lanka

---

352. Testimony of Walter Reid, Vice President, World Resources Institute, before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, House of Commons, Issue No. 47, Third Session, 34th Parliament, 1991-1992, 47:60.

353. Statement by Sir Wiwa Korowi, Governor General, Papua New Guinea, UNCED, Rio, June 13, 1992.

354. Statement by M. Vincent Perera, Minister of Env't and Parliamentary Affairs, Sri



has taken action to protect its remaining forests.<sup>355</sup> Joeli Kalou, Fiji's Minister of State for Environment similarly explained that his nation was actively protecting its unique species.<sup>356</sup> Princess Sonam Chhoden Wangchuck, representing Bhutan at UNCED, informed delegates that her government "has decided to maintain 60 percent of our country's land area under forest cover. Twenty percent or more of the total land area will consist of parks and sanctuaries for the preservation of bio-diversity."<sup>357</sup> One indirect benefit of the Rio Summit has been the nearly universal acknowledgment that this precious resource requires assertive measures to protect and conserve it for future generations. As Princess Sonam Chhoden Wangchuck explained, "[t]hrough these measures we hope to pass on to our future generation not only a rich cultural heritage but also a diverse natural heritage of which they can be proud."<sup>358</sup>

Environmentalists from Asia, Africa and Latin America were able, because of the global interest in UNCED, to educate their populations about both the significance of the resource and its potential value. As Philip Leakey, Kenya's Minister for Environment and Natural Resources commented at UNCED, biodiversity "is an area where for once developing countries are able to make significant and important international contributions as equal partners in the family of nations."<sup>359</sup> More cynically, *Newsweek* commented that "[w]hile few delegates know a fungus from a mold, they do know the most important thing about biodiversity: the rich North needs, the poor South has it."<sup>360</sup> Avani Vaish, an Indian delegate commented: "The most important thing is that the value of genetic resources will be really appreciated. Resources were a free commodity, like air and water, but [under the treaty] they're under international jurisdiction."<sup>361</sup> In 1954, when Gordon Svoboda of Eli Lilly and Co. extracted cancer-fighting alkaloids from Madagascar's rosy periwinkle, the drug company's sales were in the millions of dollars. Madagascar got nothing.<sup>362</sup>

For developing nations it seems only fair that "countries of origin should have access to biotechnology developed through the use of

---

Lanka, UNCED, Rio, June 1992.

355. *Id.*

356. Statement by Joeli Kalou, Minister of State for Env't, Fiji, UNCED, Rio, June 11, 1992.

357. Statement by Princess Sonam Chhoden Wangchuck, Representative of the King of Bhutan, UNCED, Rio, June 11, 1992.

358. *Id.*

359. Statement by Philip Leakey, Minister for Env't and Natural Resources, Kenya, UNCED, Rio, June 12, 1992.

360. *In Frye supra* note 181, at 344.

361. Press, *supra* note 329, at 3.

362. Stone, *supra* note 241.

genetic material they provide.”<sup>363</sup> The awareness of the value of the resource has also brought recognition of the serious amount of damage to biodiversity. Resio Moses, Secretary of Micronesia’s Department of External Affairs told colleagues at UNCED that “[w]e are now concerned about the future of many species of marine and plant life that we had thought to be virtually inexhaustible.”<sup>364</sup> Guy Willy Razanamasy, Prime Minister of resource-rich Madagascar lamented the fact that his country’s biodiversity is “extraordinarily rich, yet gravely threatened” and mentioned the damage caused by deforestation, shifting agriculture, erosion and marine damage caused because Madagascar is on “a major route for petrol tankers which proceed to wash out their tanks along” its shores.<sup>365</sup>

The awareness of the value of biodiversity and of the threat it now faces inevitably led to greater interest in biotechnology and the promise that science holds for the future. The entire preparatory process for UNCED was itself important in publicizing the issues for the North and the South. R. Olembo, Deputy Assistant Executive Director of the United Nations Environment Programme explained to a sub-working group on biotechnology that

[b]iotechnology represents a power to change, a potential to lift living standards, to sustain and accelerate development. Its application to crops, livestock husbandry, forestry, fisheries, hazardous waste treatment and other areas holds tremendous potential.<sup>366</sup>

As Olembo pointed out, developing countries lack the financial resources to develop their own technologies but their ownership of the genetic resource gives them “tremendous leverage to strike a new global deal.”<sup>367</sup> The nations of the South were not slow to seize the initiative and they retained it throughout the UNCED process. This is why so many of the instruments associated with the Earth Summit bear the distinct stamp of the Southern agenda. The Centre for Science and Environment in India had cautioned delegates that “[d]eveloping countries must not sign the biodiversity convention unless it reduces the existing asymmetries in access to knowledge and technology.”<sup>368</sup>

---

363. Statement by Abdalla Ahmed Abdalla, Ambassador and Head of the Delegation of Sudan, UNCED, Rio, June 5, 1992.

364. Statement by Resio S. Moses, Secretary of the Department of External Affairs, Federated States of Micronesia, UNCED, Rio, June 10, 1992.

365. Statement by Guy Willy Razanamasy, Prime Minister, Madagascar, UNCED, Rio, June 12, 1992.

366. R. Olembo, Deputy Assistant Executive Director, U.N. Env’t Programme, to the Sub-Working Group on Biotechnology, Nairobi, Nov. 14, 1990.

367. *Id.*

368. Centre for Science and Env’t, *The CSE Statement on Global Environmental Democracy To Be Submitted to the Forthcoming U.N. Conference on Environment and Develop-*

The opposition of President Bush to the Convention dramatically increased the amount of publicity accorded to it both in the North and in the South. As Walter Reid points out, "one ironic benefit of President Bush's decision not to sign was that for two weeks everybody in the United States was subjected to newspaper articles and news stories about biodiversity. The effect of that decision was a tremendous public relations coup for the issue of biodiversity."<sup>369</sup> The extent of public interest in the biodiversity issue increased with each attempt by the beleaguered Bush Government to justify its opposition. In the developing world, it appeared as though the United States was only interested in reaping enormous profits from a Southern resource without sharing the benefits with the country of origin. The refusal of the United States to participate in the Convention and its determined opposition to firm timetables for the sister Framework Convention on Climate Change did serious damage to its reputation in the Southern nations.

From a developing world perspective, the Convention provides a positive opportunity for future conservation and development within a framework which offers benefits for both the North and the South. The Preamble affirms that *the conservation of biological diversity is a common concern of humankind*. The Convention also acknowledges that *special provision is required to meet the needs of developing countries, including the provision of new and additional financial resources and appropriate access to relevant technologies* (Preamble); notes the *special conditions of the least developed countries and small island States* (Preamble); recognizes that *economic and social development and poverty eradication are the first and overriding priorities of developing countries* (Preamble); and asks Parties to *[c]ooperate in providing financial and other support for in-situ conservation. . . particularly to developing countries* (Article 8(m)). The provisions referring to ex-situ conservation of biodiversity express a preference for such conservation to take place in the country of origin (Article 9) and provide for the *establishment and maintenance of ex-situ conservation facilities in developing countries* (Article 9(e)).

The stipulations concerning research and training (Article 12) emphasize *the special needs of developing countries* with promotion of research *which contributes to the conservation and sustainable use of biological diversity, particularly in developing countries* (Article 12(b)). Developing countries which provide the genetic resource

---

ment, New Delhi, India.

369. Testimony of Walter Reid, Vice President, World Resources Institute, Nov. 23, 1992, before the Canadian House of Commons Standing Committee on Env't, Third Session, 34th Parliament, 1991-1992.

are to be encouraged to participate in biotechnological research which ought to be undertaken, where feasible, within the country of origin (Article 19.1) Developing countries will also benefit from priority access to the results of biotechnological research from their own genetic resources, on the basis of mutually agreed terms (Article 19.2).

As we have seen, more controversial clauses specify that access to technology for developing countries will be under *fair and most favourable terms, including on concessional and preferential terms where mutually agreed* (Article 16.2). Parties are also to take legislative measures so that their private sector *facilitates access to, joint development and transfer of technology . . . for the benefit of both governmental institutions and the private sector of developing countries* (Article 16.4). E-Hyock Kwon, Minister of the Environment for the Republic of Korea emphasized the significance of fair technology sharing when he addressed delegates at UNCED. He declared that "in . . . light of the great cause of global environmental preservation, it is contradictory that many countries do not have access to the environmental technology which is essential to meet the regulations and obligations of international environmental conventions."<sup>370</sup> He also pointed out that although intellectual property rights may facilitate the development of technology, such rights, in hindering technology transfer, could "result in the failure of global environmental protection."<sup>371</sup> He proposed first, that an international mechanism be established to facilitate technology transfer and provide compensation for intellectual property rights; second, that an appropriate mechanism be introduced to purchase essentially environmentally-oriented technology which could then be supplied to some poor nations on a noncommercial basis, on the understanding that "[t]he policies, information and technologies for sustainable development should be available and accessible to all countries."<sup>372</sup> Li Peng, Premier of the People's Republic of China explained that technology transfer under concessional terms "is only wise for the developed countries to do, for it serves their own interests as well as those of developing countries."<sup>373</sup> Ahmad Mattar, Singapore's Minister for the Environment emphasized that the "timely application of appropriate technology will help developing countries to avoid environmental pitfalls experienced by the developed countries."<sup>374</sup>

---

370. Statement by E-Hyock Kwon, Minister of Env't, Republic of Korea, UNCED, Rio, June 11, 1992.

371. *Id.*

372. *Id.*

373. Statement by Li Peng, Premier of the State Council of the People's Republic of China, UNCED, Rio, June 12, 1992.

374. Statement by Ahmad Mattar, Minister for the Env't, Singapore, UNCED, Rio,

The concept of shared benefits was very important to the developing nations who did not want to be excluded from the vast profits made from the utilization of biodiversity by the North. In April 1992, shortly before UNCED, Malaysia hosted a ministerial conference of developing countries. This meeting resulted in the Kuala Lumpur Declaration on Environment and Development which is a forthright assertion of the position of the South:

the Convention on Biological Diversity must include legally binding commitments to ensure the link between the access to the genetic material of developing countries and the transfer of biotechnology and research capabilities from developed countries, as well as sharing of commercial profits and products derived from genetic material.<sup>375</sup>

One encouraging note for the developing nations was sounded by William Reilly, Head of the United States Delegation to UNCED. He told delegates that his nation "strongly supports technology cooperation with developing countries to help them find sustainable paths to economic development."<sup>376</sup>

The Convention specifies that developing countries also benefit *in exchange of information from all publicly available sources, relevant to the conservation and sustainable use of biological diversity* (Article 17.1) and in measures taken to promote inter-Party technical and scientific cooperation to implement the Convention (Article 18.2)

There is a growing apprehension on the part of some developing nations that this biological resource may fall prey to the voracious appetite of the biotechnology industry. The President of Tanzania, Ali Hassan Mwinyi expressed his concern that "certain herbs and other forest resources in high demand for biotechnology have often been extracted to depletion in developing countries, thus threatening the continued existence of plant varieties and undermining biodiversity."<sup>377</sup> He was also worried that "[g]enetic engineering could . . . be ecologically damaging to animal life from excessive use of particular species, such as monkeys, rats and birds for research and experimentation."<sup>378</sup> The financial provisions are of considerable importance to the environmental agenda of the South. The Convention states that *developed country Parties shall provide new and addi-*

---

June 11, 1992.

375. Kuala Lumpur Declaration on Env't and Development, Apr. 26-29, 1992, Kuala Lumpur, Malaysia, SMCED/MC/DOC.2.

376. Statement by William K. Reilly, Head United States Delegation to UNCED, Rio, June 3, 1992.

377. Statement by Ali Hassan Mwinyi, President, United Republic of Tanzania, UNCED, Rio, June 13, 1992.

378. *Id.*

*tional financial resources to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures which fulfil the obligations of this Convention (Article 20.2). Indeed, developing country implementation is contingent on funding from the developed world:*

*The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties (Article 20.4).*

There could be no stronger statement of the developing country agenda than this provision which ensures that funding must come from the North if biodiversity is to be protected. The stipulation emphasizing the importance of economic and social development also caters heavily to the Southern sense of priorities. The particular needs of the least developed nations, small island states and environmentally vulnerable areas are also recognized by the Convention (Article 20.5-20.7). As we have seen, the financial mechanism *shall function under the authority and guidance of, and be accountable to, the Conference of the Parties for purposes of this Convention* (Article 21.1), with emphasis on *predictability, adequacy and timely flow of funds . . . with the amount of resources needed to be decided periodically by the Conference of the Parties*, the mechanism to operate *within a democratic and transparent system of governance* (Article 21.1). The developing countries organized a strong lobby, led by India and Malaysia to ensure the dominant status of the Conference of the Parties regarding financial decisions, because this would provide for one-country, one-vote decisions, resulting in more influence for the South.<sup>379</sup> In a critical Editorial, *The Times* (London) commented that Third World governments "want money with no strings" and denounced the fact that "[a] sensible principle that poor countries should be rewarded for protecting species has been turned into a binding obligation on the West to provide a grandiose, multi-course free lunch."<sup>380</sup> An alternate approach would be that without economic incentives, developing countries will simply be unable to undertake conservation of their biodiversity.

Fortunately for the implementation of the Convention, many developed nations recognize the responsibility they will have to bear to

---

379. *Focus Report: UNCED's Crumbling Pillar: the Biodiversity Convention*, IV GLOBAL ENVTL. CHANGE REP., 2 (June 11, 1992).

380. *Biodegradable Treaty*, *supra* note 294, at 15.

assist the developing world to preserve biodiversity. There is now a growing awareness among policy makers in the rich countries that poverty poses the greatest threat to the global environment, that "[p]overty degrades not only those who suffer it, but also those who tolerate it"<sup>381</sup> and that unless economic improvement — via development — occurs in those areas, the environment of the entire planet is doomed simply because the people of the South do not have many alternatives or options.<sup>382</sup> President Ali Hassan Mwinyi of Tanzania pointed out that in developing countries approximately 150 million people are suffering from malnutrition; 1.5 billion people do not have access to health facilities; 1.75 billion do not have clean water; 2.8 billion lack sanitation facilities. 4 million children die while 750 million suffer acute diarrhea every year.<sup>383</sup> As he explained, "[t]he reality of poverty-driven degradation of the environment is felt throughout the third world, where the incidence of environmental degradation and poverty is always a case of untold misery."<sup>384</sup> Gro Harlem Brundtland, Prime Minister of Norway asserted that "[w]e should not be surprised that developing nations are approaching the Rio summit with open economic demands. For them, it is essentially a conference about development and justice."<sup>385</sup>

Many developed countries have also accepted the fact now that the Conference of the Parties will formulate the main decisions once implementation and activity begins. Ambassador Arthur Campeau of Canada believes that the necessary thirty ratifications<sup>386</sup> ought to be in by the end of this year, 1993, which could mean that the Conference of the Parties will convene in 1994.<sup>387</sup> Although at date of writing the Global Environment Facility has not yet been restructured, it is still likely to be the favored mechanism for the allotment of funding for biodiversity conservation, unless the Conference decides otherwise. Developed countries made generous pledges at Rio but obviously, given the enormous range of environmental tasks envisaged by the Convention on Biological Diversity, the Framework Convention on Climate Change and the massive Agenda 21, there will never be as much financial assistance as the world will require.

---

381. Statement by Gro Harlem Brundtland, Prime Minister, Norway, UNCED, Rio, June 3, 1992.

382. See generally Ranee K.L. Panjabi, *The South at the Earth Summit: The Environment/Development Dichotomy*, 11 DICK. J. INT'L L. 77 (1992).

383. Statement by Ali Hassan Mwinyi, President, United Republic of Tanzania, UNCED, Rio, June 13, 1992.

384. *Id.*

385. Statement by Gro Harlem Brundtland, Prime Minister, Norway, UNCED, Rio, June 3, 1992.

386. The Convention specifies in Article 36 that it will enter into force ninety days after the deposit of 30 instruments of ratification.

387. Arthur Campeau, Ambassador for Sustainable Development, Canada, Telephone discussion with author, Apr. 1993.

The GEF has estimated that biodiversity protection could cost approximately \$35,000 per square kilometre.<sup>388</sup> The World Resources Institute predicts that in the present decade of the 1990s, environmental and natural resource conservation will cost between \$20 to \$50 billion annually.<sup>389</sup> The challenge of the future implementation process will inevitably be to allocate funding where it can achieve the greatest results and, more importantly, to aim the initial grants at urgent conservation, clean-up or protection problems which simply cannot wait. Unfortunately the "[c]ountries with the richest diversity of life on Earth are also the ones least able to afford conservation measures."<sup>390</sup>

During the Earth Summit Japan pledged one trillion yen (7 to 7.7 billion U.S. dollars) in aid for global environmental protection. This represents a "doubling of the nation's environment-related aid."<sup>391</sup> Although the Japanese aid will be utilized for a number of programs, protection of the rain forest is definitely included in their agenda.<sup>392</sup> According to *The New York Times* in June 1992, "Japan indicated that it would substantially increase its foreign aid, which has been running at about \$10 billion a year, to help poor countries pay for environmental programs. Japanese officials said Tokyo would offer \$7 billion for the environment, but it was unclear how much of this would be new money beyond what Japan had already intended to spend."<sup>393</sup> Former Japanese Prime Minister Noboru Takeshita explained at UNCED that "[t]he destruction of the global environment has been caused in large part by the activities of developed countries," and he suggested therefore that this requires "a commitment by developed countries" in dealing with the "problem of poverty in developing countries, a problem closely linked to the issue of environmental protection."<sup>394</sup> It was no surprise that Japan came away from Rio with its environmental reputation in excellent shape despite a tainted record for deforestation, whale-hunting and for being "the world's biggest importer of wildlife."<sup>395</sup> Hideo Obara, Di-

---

388. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, Fourth Session, Intergovernmental Negotiating Committee for a Convention on Biological Diversity, Nairobi, Sept. 23, 1991.

389. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, Third Session, Ad Hoc Working Group of Experts on Biological Diversity, Geneva July 9, 1990.

390. Statement by Mostafa Tolba, Executive Director, U.N. Env't Programme, Fourth Session, Intergovernmental Negotiating Committee for a Convention on Biological Diversity, Nairobi Sept. 23, 1991.

391. Statement by Kiichi Miyazawa, Prime Minister, Japan, UNCED, Rio, June 13, 1992 and *Japan To Promise Yen 1 Trillion in Aid For Ecology Efforts*, JAPAN TIMES, June 2, 1992, at 1.

392. *Japan To Promise Yen 1 Trillion In Aid For Ecology Efforts*, JAPAN TIMES, June 2, 1992, at 1.

393. Stevens, *supra* note 318, at 1.

394. *Takeshita in Rio, Asks Collective Action*, JAPAN TIMES, June 5, 1992, at 1.

395. Clayton Jones, *Japan Follows US In Scaled-Back Role for Rio*, CHRISTIAN SCI.



rector General of the Nature Conservation Society of Japan observed that "[m]any countries expect some financial support from the Japanese government, so they have decided not to criticize it."<sup>396</sup> Naomi Kamei, Coordinator at Friends of the Earth in Japan suggested, somewhat cynically that the promised environmental aid would mainly assist "Japanese companies and Japanese politicians."<sup>397</sup>

Developing nations displayed considerably less enthusiasm for the aid package proposed by President Bush who promised that

[w]e come to Rio with an extensive program of technology cooperation. We stand ready, government and private sector, to help spread green technology and launch a new generation of clean growth. We come to Rio recognizing that the developing countries must play a role in protecting the global environment, but will need assistance in pursuing these cleaner growths. So we stand ready to increase U.S. international environmental aid by 66 percent above the 1990 levels, on top of the more than \$2.5 billion dollars that we provide through the world's development banks for Agenda 21 projects.<sup>398</sup>

The President also promised \$150 million per year for reforestation projects in developing countries, a sum dismissed by environmentalists as "a drop in the ocean."<sup>399</sup> The American Forests for the Future Initiative doubled total assistance for international forest conservation from \$1.35 billion to \$2.7 billion.<sup>400</sup> "US officials indicated that countries supporting the US forest initiative would be more likely to receive forestry aid than those who opposed it."<sup>401</sup>

John Major, Prime Minister of the United Kingdom asserted that "money is the root of all progress"<sup>402</sup> and promised to contribute to save the rainforests and wildlife but the bulk of Britain's extra L100 million was allocated for climate change and another L25 million for other projects.<sup>403</sup> Michael Howard, British Secretary of State for the Environment stated that the new funding would be

---

MONITOR, June 1, 1992, at 4.

396. *Id.*

397. *Id.*

398. Statement by George Bush, President, U.S.A., UNCED, Rio, June 12, 1992.

399. Gabriella Gamini, *Tented Campaigners Make Their Pitch*, THE TIMES (London), June 2, 1992, at 10.

400. Paul Raeburn, *The Convention on Biological Diversity: Landmark Earth Summit Pact Opens Uncertain New Era For Use and Exchange of Genetic Resources*, 8 DIVERSITY 3 (1992).

401. *Forest Initiative Falters at UNCED*, IV GLOBAL ENVTL. CHANGE REP. 3 (June 11, 1992).

402. Robin Oakley, *Major Promises L100m More For Green Projects*, THE TIMES (London), June 13, 1992, at 1.

403. *Id.*

channelled through the Global Environment Facility (GEF).<sup>404</sup> Of greater significance in the long term is the British project to encourage international studies of natural resources, establish research goals and establish inventories of the most significant species and habitats. This project, called the Darwin initiative would take advantage of Britain's recognized expertise as demonstrated at centers like the Royal Botanical Gardens at Kew, the Natural History Museum at London and the World Conservation Monitoring Centre at Cambridge.<sup>405</sup> The Darwin Initiative would assist countries both to monitor and utilize their biodiversity resources.<sup>406</sup> Most important among its objectives is the training it would provide for professionals from developing countries.<sup>407</sup> Funding for the project is relatively modest at L6 million over three years<sup>408</sup> but as Environment Minister David Maclean said "The developed world is in recession. If the developing world thinks the major nations of the world in the middle of a very, very bad recession have the resources to be able to proceed quickly, then I am afraid that is just not possible."<sup>409</sup> However, to demonstrate its commitment to the implementation of the Convention, the United Kingdom offered to host the first Conference of the Parties.<sup>410</sup>

With respect to environmental projects in developing nations, a number of developed countries made generous promises at UNCED to contribute more funding to ecological improvement in the poor nations. Germany proposed additional funding and debt remission for poor nations and Chancellor Helmut Kohl asserted his nation's readiness to assume its share of the burden.<sup>411</sup> President Mitterand of France offered to double his country's contribution to the World Environment Fund, among other pledges.<sup>412</sup> Austria, which in 1990 spent 1.9 percent of its Gross National Product on environmental programs, joined the ranks of the top third of contributors with increased pledges for the developing world.<sup>413</sup> Explaining that his country already spends more than 1 percent of its GNP on development assistance, Thorbjorn Berntsen, Norway's Minister of Environ-

---

404. Michael Howard, announcement June 9, 1992, British Information Services News Release 48/92, June 10, 1992.

405. Policy Statements by John Major, Prime Minister., United Kingdom, Nos. 57/92 (June 12, 1992) and 59/92 (June 15, 1992), British Information Services.

406. Raeburn, *supra* note 400, at 3.

407. *Id.*

408. *Funding For Darwin Initiative*, British Information Services, Nov. 19, 1992.

409. Oakley, *supra* note 311, at 10.

410. Statement by Michael Howard, Secretary of State for the Env't, U.K., at the Natural History Museum, London, June 24, 1992.

411. Statement by Helmut Kohl, Chancellor, Federal Republic of Germany, UNCED, Rio, June 12, 1992.

412. Statement by Francois Mitterand, President, France, UNCED, Rio, June 13, 1992.

413. Statement by Ruth Feldgrill-Zankel, Federal Minister of Env't, Austria, UNCED, Rio, June 5, 1992.

ment announced the allocation of additional financing for global environmental problems.<sup>414</sup> The Swedish Government was also generous, allocating special funding specifically for financing UNCED commitments.<sup>415</sup> Even Ireland, "one of the least developed economies in a developed part of the world,"<sup>416</sup> promised to increase its development assistance.<sup>417</sup> Although these pledges were encouraging for the developing nations, most of the commitments were phrased rather vaguely and it is not easy to pin down the actual amounts of *new* funding with precision. Government leaders were obviously at Rio to lend a glow of summity to the occasion and were accordingly expansive and possibly competed to some extent to outdo each other in appearing generous. Once the Conventions are ratified and the process of implementation begins, it is possible that some Contracting Parties may be hard pressed to live up to their generous rhetoric at Rio.

The United Nations has indicated a target percentage of GNP of developed countries to be allocated as aid for developing nations. This percentage is 0.7<sup>418</sup> but unfortunately, few industrialized nations have met that objective. None of the seven major developed countries have achieved the United Nations goal. The following statistics record the percentage of Gross National Product allotted to foreign aid: Canada — 0.40 percent, France 0.52 percent, Germany 0.42 percent, Italy 0.32 percent; Japan 0.31 percent, U.K. 0.27 percent, U.S.A. 0.19 percent.<sup>419</sup> A more positive contribution to developing nations is made by smaller European countries like Denmark 0.93 percent, the Netherlands 0.93 percent and Sweden 0.90 percent.<sup>420</sup> Developing nations attempted throughout the Rio process to persuade and pressure the North about the need to reach the U.N. aid target. However, although most developed nations (with the exception of Switzerland and the United States<sup>421</sup>) have indicated a willingness to accept the target most of them (with the notable exception of France<sup>422</sup>) continue to resist any attempt to set a deadline

---

414. Statement by Thorbjorn Berntsen, Minister of Env't, Norway, UNCED, Rio, June 4, 1992.

415. Statement by Olof Johansson, Minister of the Env't, Sweden, UNCED, Rio, June 8, 1992.

416. Statement by Michael Smith, Minister for the Env't, Ireland, UNCED, Rio, June 10, 1992.

417. *Id.*

418. Knickerbocker, *supra* note 167, at 3.

419. *Profligate At Home, Miserly Abroad*, GLOBE & MAIL, Mar. 12, 1993, at A16. Note: percentage for U.S.A. includes strategic support to countries like Israel, Egypt, and Turkey.

420. *Id.*

421. Michael McCarthy, *UN Aid Figure Obsesses Rich and Poor Nations*, THE TIMES (London), June 12, 1992, at 15.

422. Dennis Bueckert, *Federal Pledge Would Cost \$2 Billion Per Year*, VANCOUVER SUN, June 9, 1992, at A11.

for achieving that goal.<sup>423</sup> Sweden's Prime Minister, Carl Bildt suggested that meeting the target "should be a moral duty for all of the countries of the rich world."<sup>424</sup>

Canada's Environment Minister, Jean Charest confirmed during the Earth Summit that his country was prepared to increase its foreign aid to 0.7 percent of the Gross Domestic Product.<sup>425</sup> Charest did not specify a deadline for meeting the commitment.<sup>426</sup> This was probably because this commitment would increase Canadian aid by almost \$2 billion.<sup>427</sup> Prime Minister Brian Mulroney of Canada reminded delegates at UNCED that his nation had contributed \$1.3 billion for sustainable development projects in the developing world over the previous five years and promised to provide \$25 million to the Global Environment Facility, \$50 million for humanitarian assistance and drought relief in Southern Africa and elimination of \$145 million in Latin American debt to Canada.<sup>428</sup> The reality is that "Canada's growing debts have put the country on the threshold of a major crisis,"<sup>429</sup> which forced the Canadian Cabinet to decide in December 1992 to cut approximately \$600 million in aid by 1995.<sup>430</sup> Over the next five years, the cuts in aid are expected to total \$4.4 billion.<sup>431</sup> The process of cutting aid to developing nations is not recent. Since the 1980s Canada has reduced its aid to Africa by more than half.<sup>432</sup> The lavish promises at Rio notwithstanding, "[t]hird World programs will get a smaller proportion of an already shrinking pie."<sup>433</sup>

The United Nations has estimated that it would cost approximately \$600 billion a year to implement sustainable development throughout the world, with \$125 billion required as an annual contribution from the industrialized countries.<sup>434</sup> In the months leading up to UNCED, developing countries attempted frantically to persuade the North to pledge the approximately \$70 to \$75 billion extra

---

423. Canadian Press, *Negotiations Stall at Earth Summit*, THE CHRONICLE-HERALD (Halifax, Canada), June 10, 1992, at A2.

424. Statement by Carl Bildt, Prime Minister, Sweden, UNCED, Rio, June 13, 1992.

425. Bueckert, *supra* note 422, at A11.

426. Canadian Press, *Environmental Aid Pledge Would Cost Extra \$2 Billion*, GLOBE & MAIL, June 9, 1992, at A8.

427. Bueckert, *supra* note 422, at A11.

428. Statement by Brian Mulroney, Prime Minister, Canada, UNCED, Rio, June 12, 1992.

429. Bruce Little, *Debt Crisis Looms, Study Warns*, GLOBE & MAIL, Feb. 16, 1993, at 1.

430. Jeff Sallot, *The Changing Face of Foreign Aid*, GLOBE & MAIL, Feb. 13, 1993, at A5.

431. *Profligate At Home, Miserly Abroad*, GLOBE & MAIL, March 12, 1993, at A16.

432. Gerry Barr, *Foreign Aid: Saving Now and Paying Later*, GLOBE & MAIL, Mar. 16, 1993, at A19.

433. Jeff Sallot, *Ottawa to Shift Foreign-Aid Focus*, GLOBE & MAIL, Jan. 25, 1993, at A4.

434. Bueckert, *supra* note 422, at A11.

per year estimated to be the amount required to fund the main environmental programs.<sup>435</sup> They were not successful despite intense negotiating, nor could they secure deadlines (the proposed target was the year 2000<sup>436</sup>) for the developed countries to reach the United Nations target of 0.7 percent. *The Times* (London) commented that "[a] Martian would find it hard to believe that an obscure debate about completely arbitrary numbers is dominating the biggest meeting ever held of world political leaders, a meeting allegedly called to deal with dire environmental emergencies threatening the very existence of Planet Earth. Yet so it is."<sup>437</sup>

Domestic economic problems in developed countries dominate and frequently overwhelm the foreign aid agendas and nations have already begun to reconsider their promises to developing nations. There are a number of reasons for this:

With total unemployment in the United States, Canada, Japan, Germany, France, Italy and the United Kingdom topping 23 million, trade tensions on the rise, Russia in crisis and the major European economies plus Japan's in a serious slump,<sup>438</sup> there are few alternatives available for the countries of the North. Almost a year after Rio, global environmental problems would now seem to be a lesser priority in the minds of government leaders than the domestic economic crises facing the Northern countries. The dissolution of the Soviet Union has converted its component member states into major foreign aid recipients rather than donors. The North Americans and Europeans have made the sustenance of democracy in Russia a major priority in foreign aid. This cannot but have a negative impact on the amounts given to the developing nations.

One significant consequence of UNCED was the growing realization that the world simply has to re-think its economic system and re-define the value of any commodity. Every nation has to consider the hitherto hidden costs in terms of pollution and environmental damage in any production or development process. The citizens of every country in the world have collectively borne the price of industrialization in the North. A forthright advocate for the developing nation perspective, Prime Minister Mahathir Bin Mohamad of Malaysia told delegates at UNCED, "[w]hen the rich chopped down their forests, built their poison-belching factories and scoured the

---

435. McCarthy, *supra* note 421, at 15; Carey French, *Institution Learns From Its Mistakes*, GLOBE AND MAIL, June 2, 1992, at B26.

436. Anne McIlroy, *Negotiations Take big Step Backwards*, VANCOUVER SUN, June 9, 1992, at A11.

437. *Meaningless Targets*, THE TIMES (London), June 12, 1992, at 17.

438. Madelaine Drohan, *G7 Chiefs Vague on Pledges*, GLOBE & MAIL, March 1, 1993, at B1.

world for cheap resources, the poor said nothing. Indeed they paid for the development of the rich. Now the rich claim a right to regulate the development of the poor countries. And yet any suggestion that the rich compensate the poor adequately is regarded as outrageous. As colonies we were exploited. Now as independent nations we are to be equally exploited."<sup>439</sup> The degradation of air, land and water is evident for all to see. The Industrial Revolution of the West continues to exact a human toll every day of every year as human beings pay with their health and frequently their lives for the enjoyment of consumer goods. The planet simply cannot afford the same pace of environmentally-ignorant development in the South. Economically, once a new system of enumerating the real cost of a product becomes the norm, then governments might finally realize that it would be preferable to adopt environmentally safe development now than to pay much higher costs later. Only then perhaps will the funding issues be addressed seriously. The process of internalizing environmental costs was explained by Jose Esquinas-Alcazar, Secretary of the United Nations Food and Agriculture Organization's (FAO) Commission on Plant Genetic Resources who said, "[w]hen you buy an apple, you should pay not only for the cost of production, but also for the cost of conservation of natural resources that would allow future generations to continue having apples."<sup>440</sup> Arthur Campeau, Head of the Canadian delegation which negotiated the Biodiversity Convention, commented that "[i]n our society, what we value economically, we conserve. What we don't value economically, unfortunately, we waste."<sup>441</sup> He continued to suggest that

the biggest hurdle to the conservation of biological diversity is outmoded concepts of economic value. What are now considered economic externalities must be taken into account. We must evolve more sophisticated methods of calculating our national accounts, our GNP, which take into account the maintenance and depreciation of our biological resources. To redress that, we need comprehensive methods for assessing the worth of biodiversity. We need tools to prove the costs of inaction grossly exceed the relatively small price of action.<sup>442</sup>

The crucial importance of financing the provisions of the UNCED Conventions was stressed by Maurice Strong, Secretary-Gen-

---

439. Statement by Mahathir Bin Mohamad, Prime Minister, Malaysia, UNCED, Rio, June 13, 1992.

440. Raeburn, *supra* note 400, at 6.

441. Arthur Campeau, Canada's Ambassador for Sustainable Development, Testimony before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, House of Commons, Issue No. 47, Third Session, 34th Parliament 1991-1992, 47:41.

442. Arthur Campeau, Canada's Ambassador for Sustainable Development, Testimony before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, House of Commons, Issue No. 47, Third Session, 34th Parliament, 1991-1992.

eral of UNCED who emphasized the need for

developing new sources of funding, because the steps we have taken still do not promise to meet the larger needs. We should consider, for example, new taxes, user charges, emissions permits, citizen funding, all based on the polluter-pays principle. I believe the amounts of money available simply from funds wasted in existing subsidies to non-environmentally-sound activities could alone provide all the money necessary as an indispensable investment in environmental security.<sup>443</sup>

Almost a year after the Earth Summit, the enthusiasm generated by the UNCED process to protect and conserve biodiversity could now be wearing thin. Towards the end of 1992, Maurice Strong found that the reaction to Rio in developed countries was not very encouraging<sup>444</sup> and Mostafa Tolba of the United Nations Environment Program commented that "[t]he pace of governmental action has faltered."<sup>445</sup> The fate of all the millions of species with which we share this planet is now more threatened than ever. Although the will to save species may still be there, finding the financial resources to achieve that objective will be a greater challenge than ever. A commitment by President Clinton to sign the Biodiversity Treaty might provide some encouragement but unless the North moves quickly to ratification, implementation and funding for specific projects, the ecological holocaust will continue every day. For the developing nations, the time has come to realize that biodiversity must be conserved whether or not the developed world provides adequate funding. The imperative of this cause has not declined, however low a priority it may now take in the funding agendas of governments. To say that the future of the planet is at stake is really no exaggeration.

#### IX. The Obligations of the Convention

This Convention is very activity-oriented both at the national and at the international level. As we have seen, it will be an extremely expensive undertaking to implement its provisions and this is why there are so many qualifying phrases to the obligations to make them less onerous for all Contracting Parties. The extensive resort to qualifying phrases like "as far as possible" and "as appropriate" could prove to become a hindrance for environmentalists seeking rapid implementation of the provisions of the Convention.

---

443. Statement by Maurice Strong, Secretary-General, UNCED, Rio, June 14, 1992.

444. John Stackhouse, *Developing Nations Find Politics Slows Environmental Plan*, GLOBE AND MAIL, Nov. 17, 1992, at A6.

445. Canadian Press, *Environmental Warning Issued*, GLOBE & MAIL, Dec. 10, 1992, at A8.

One benefit of the Convention is that it has carefully mapped out measures which need to be taken and has charted the necessary course of action for any member state which is interested enough to undertake these activities. Obviously, each nation will implement the Convention according to its capacity and, with respect to developing nations, on the basis of the amount of aid received from the North. However, it is important briefly to explain the obligations because a knowledge of these provides some insight into the multi-faceted approach which will have to be taken by governments if the cause of biodiversity conservation is to succeed. Incidentally, there could be numerous opportunities for technical experts, scientists, researchers and lawyers, whose skills will be required around the world to activate the commitments of member nations. This is another reason why the participation of the United States is so important, not just for the success of the Convention but also in terms of the opportunities this could open up for its own citizens. As Kenton Miller, Program Director for Forests and biological Diversity for the World Resources Institute suggests, "[c]ountries that get involved in biotechnology and other spin-offs of biological resources can enjoy new jobs."<sup>446</sup> Russell Mittermeier, President of Conservation International in Washington D.C. asserts that "[b]iodiversity is the new Silicon Valley," referring by comparison to the technological revolution in computers which occurred in that region of California.<sup>447</sup>

The obligations of Contracting Parties are enumerated below with the aim of explaining the many duties required by the Convention. Articles of the Convention which have already been analyzed in detail will not be repeated in this section.

1. The development of *national strategies, plans or programmes for the conservation and sustainable use of biological diversity* (Article 6(a)).
2. The integration of *sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programme and policies* (Article 6(b)).
3. The identification of *components of biological diversity* with reference to a list of categories in Annex I to the Convention (Article 7(a)).
4. The monitoring of components of biodiversity *paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use* (Article 7(b)).
5. The identification of *processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity* (Article 7(c)) and

---

446. Raeburn, *supra* note 400, at 4.

447. *Id.* at 4-5.



the monitoring of the effects (Article 7(c)).

6. The maintenance and organization of data derived from the identification and monitoring activities (Article 7(d)).

With respect to in-situ conservation, the Convention asks that Contracting Parties

7. *Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity* (Article 8(a)).

8. *Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity* (Article 8(b)).

9. *Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use* (Article 8(c)).

10. *Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings* (Article 8(d)).

11. *Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas* (Article 8(e)).

12. *Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species* (Article 8(f)).

13. *Establish ways to regulate risks associated with the . . . release of living modified organisms resulting from biotechnology . . . taking also into account the risks to human health* (Article 8(g)).

14. *Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species* (Article 8(h)).

15. *Provide necessary conditions for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components* (Article 8(i)).

16. *Preserve, maintain and promote the wider application of the knowledge and practices of indigenous and local communities concerning sustainable use of biological diversity and encourage the equitable sharing of the benefits of this information* (Article 8(j)).

17. *Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations* (Article 8(k)).

18. *Regulate processes where a significant adverse effect on biological diversity has been determined* (Article 8(l)).

19. *Cooperate in providing financial and other support for in-situ conservation . . . particularly to developing countries* (Article 8(m)).

As a complement to the in-situ measures outlined above, the Convention asks Contracting Parties to undertake ex-situ conservation activities as well. Each Contracting Party shall

20. *Adopt measures for the ex-situ conservation of components of biological diversity,, preferably in the country of origin of such components* (Article 9(a)).

21. *Establish and maintain facilities for ex-situ conservation. . .preferably in the country of origin of genetic resources* (Article 9(b)).

22. *Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions* (Article 9(c)).

23. *Regulate the collection of biological resources for ex-situ conservation so as not to threaten ecosystems and in-situ populations of species* (Article 9(d)).

24. *Cooperate in providing financial and other support for ex-situ conservation. . .and in the establishment and maintenance of ex-situ conservation facilities in developing countries* (Article 9(e)).

There are also measures to be taken to ensure sustainable use of components of biological diversity. Each Party shall:

25. *Integrate consideration of the conservation and sustainable use of biological resources into national decision-making* (Article 10(a)).

26. *Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity* (Article 10(b)).

27. *Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements* (Article 10(c)).

28. *Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced* (Article 10(d)).

29. *Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources* (Article 10(e)).

30. *Adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity* (Article 11).

The research and training provisions emphasize the special needs of developing countries and direct that the Parties shall:

31. *Establish and maintain programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components* (Article 12(a)).

32. *Promote and encourage research which contributes to the conservation and sustainable use of biological diversity* (Article 12(b)).

33. *Cooperate in the use of scientific advances to develop methods for sustainable use of biological resources* (Article 12(c)).

With respect to public education and awareness, Contracting Parties shall:

34. *Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes* (Article 13(a)).

35. *Cooperate . . . with other States and international organizations in developing educational and public awareness programmes for its conservation and sustainable use* (Article 13(b)).

There are provisions for impact assessment directing each Party to

36. *Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse impacts on biological diversity.* The aim is to minimize ill effects and also to allow for public participation in the process (Article 14.1(a)).

37. *Introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account* (Article 14.1(b)).

Transboundary responsibilities are also specified in Article 14, again with the qualifying phrases attached. Each Party shall:

38. *Promote, on the basis of reciprocity, notification, exchange or information and consultation on activities under [its] jurisdiction or control which are likely to have a significant adverse impact on the biological diversity of other States.* The Convention encourages the formulation of bilateral, regional or multilateral agreements to further this aim (Article 14.1(c)).

39. *In a situation of imminent danger, notify immediately the potentially affected States. . . as well as initiate action to prevent or minimize such danger or damage* (Article 14.1(d)).

40. *Promote national arrangements for emergency responses to activities. . . which present a grave and imminent danger to biological diversity* (Article 14.1(e)).

There are detailed provisions referring to exchange of information and technical and scientific cooperation. Contracting Parties shall

41. *Facilitate the exchange of information, from all publicly available sources* (Article 17.1 and 17.2).

42. *Promote international technical and scientific cooperation in the*

*field of conservation and sustainable use of biological diversity* (Article 18.1).

43. Develop and implement national policies for the promotion of technical and scientific cooperation, particularly with developing countries (Article 18.2).

44. *Promote cooperation in the training of personnel and exchange of experts* with the objective of encouraging the development and use of technologies, including indigenous and traditional technologies (Article 18.4).

45. *Promote the establishment of joint research programmes and joint ventures for the development of technologies* (Article 18.5).

It is evident from the above detailed description of the tasks to be undertaken that developing nations will need considerable financial and technical assistance to accomplish the objectives of the Convention. It will be up to them to continue to press the primacy of the cause of biodiversity conservation with developed countries so that the issue remains, as it were, "on the front burner."

Although implementation could result in a frenetic round of activity, the Convention is not really as firm about mandating the obligations of Contracting Parties as it ought to have been. Aside from the frequent resort to qualifying phrases, already mentioned, the Contracting Parties will largely be self-monitoring as explained in the Convention:

*Each Contracting Party shall, at intervals to be determined by the Conference of the Parties, present to the Conference of the Parties, reports on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this Convention* (Article 26).

Walter Reid of the World Resources Institute commented that "the negotiators discarded one powerful tool that could have been used for monitoring and instigating action. This was a mechanism to list globally threatened and endangered species and habitats."<sup>448</sup> Should a Contracting Party renege, even on the ambiguous and qualified obligations of the Convention, there are no measures specified. However, the Convention does state that *The Conference of the Parties shall keep under review the implementation of this Convention* (Article 23.4) and adds that it shall *inter alia (c)onsider and undertake any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in*

---

448. Walter Reid, Vice President, World Resources Institute, Testimony Before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, Issue No. 47, Third Session, 34th Parliament, 1991-1992.

*its operation* (Article 23.4(i)).

It is also important to note that while there is an extensive, almost exhausting activity list,

specific conservation actions are lacking. While it does require countries to undertake conservation planning, to develop legislation to protect threatened species and populations, to monitor the status of biodiversity, and to establish a system of protected areas, it doesn't establish criteria for measuring progress toward biodiversity conservation, and it requires no specific action to slow the loss of species and habitats.<sup>449</sup>

Time alone will tell how effective this Convention will be in the future and how dramatic a difference it will make to the survival of other species on this planet. The analysis in this article has explored both its strengths and its flaws with as much impartiality as possible. All the faults of the Convention notwithstanding, the fact of its existence is a tremendous achievement in itself. The fact that so many different nations with varied viewpoints and divergent perspectives could come together to agree to save biodiversity testifies to the seriousness with which the crisis of species destruction is perceived around the world. If some delegates attempted to wrest gains for their own national or regional agendas, that is frequently the case in international negotiations of this nature. One of the world's most articulate supporters of the cause of saving biodiversity is Arthur Campeau, now Canada's Ambassador for Sustainable Development. He led the Canadian delegation which participated in the negotiations for this Convention. With that experience, he asserted confidently that

the Convention and the principles that underlie it are sound. They will bring benefits, not just to Canadians but to all peoples, and in fact to all species. Quite simply, it represents the turning of a new page in our understanding of the world and of the impact our species is having on the others, on ecosystems we must co-inhabit, of the economic implications that flow from the conservation and non-conservation of biodiversity and from its sustainable and non-sustainable use. It is also about the intrinsic value of life itself.<sup>450</sup>

---

449. Walter Reid, Vice President, World Resources Institute, Testimony before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, Issue No.47, Third Session, 34th Parliament, 1991-1992.

450. Arthur Campeau, Testimony before the Canadian House of Commons Standing Committee on Env't, Nov. 23, 1992, House of Commons, Issue No. 47, Third Session, 34th Parliament, 1991-1992.

## X. Conclusion

Maurice Strong, Secretary-General of UNCED was cautiously optimistic as he concluded the Conference on Environment and Development. He told delegates that

If we have reason for satisfaction, we certainly do not have reason for complacency. The real measure of our success will be in what happens when we leave here, in our own countries, in our own organizations, in our own lives. Will this Summit merely be a high point in our expressions of good intentions and enthusiasm and excitement, or will it really be the start of the process of fundamental change which we absolutely need.<sup>451</sup>

Although the Earth Summit at Rio was the largest environmental gathering ever held and though it generated great enthusiasm around the world for the cause of ecological betterment, it is still too early to determine its real effectiveness. That verdict awaits the test of time and the extent of dedication that some governments and environmentalists are prepared to devote to fulfilling the verbal commitments they made at Rio. Two decades after the Stockholm Conference, people were lamenting the lack of achievement even though at the national and regional level, there were accomplishments. If two decades from now, there are active plans to conserve and protect forests in every continent; detailed inventories of species; fair and equitable agreements on sharing of genetic resources and some assurances that poor nations can enjoy the benefits of the latest environmental technologies, that will be a testament to the successful implementation of the Convention on Biological Diversity. Two decades from now, if the pressure of burgeoning populations in the developing world has pushed out wildlife from its present shrunken habitat; if the South remains poor and the North continues to enjoy the overwhelming share of the world's wealth; if the forests are gone and the air everywhere is foul to breathe; if the ecological holocaust has affected food supplies and indeed disrupted the food chain which sustains us now; if the world continues as it is now with pockets of privilege surrounded by vast areas of deprivation and misery then they will look back at this Convention and declare it a great promise which would remain unfulfilled. Arguably, the world expected far too much from the great extravaganza called the Earth Summit. As author, Walter Russell Mead commented, "[t]he old, pre-Rio diplomacy was important, but simple . . . . The new diplomacy isn't simple. There are more than 175 countries, and on issues like trade, the environment and nuclear proliferation, many have to be consulted.

---

451. Statement by Maurice Strong, Secretary-General, UNCED, Rio, June 14, 1992.

Worse still, the new diplomacy deals with far more complicated issues."<sup>452</sup>

If UNCED raised awareness about the crucial environmental problems of our time, that alone should make it a big success. If it generated debate in every nation of this world about the need to clean-up this planet, then it will have served a great purpose. If it stirred our collective conscience about the plight of those forms of life which are vulnerable, that rates as an achievement. If it provided world leaders with a stage on which they made pledges then it provides the public with a standard to which they can hold their governments. That too is an indication of some success.

As regards the instruments of international law, soft law or binding law, formulated for this Earth Summit, the fact that so many governments, willingly or otherwise, signed the Conventions, testifies to the amount of public interest generated. That is also a measure of its success. After all the bickering between rich and poor, North and South; after all the quibbling about bracketed texts and delicately balanced verbal compromises; after lawyers and politicians and world leaders and diplomats have ended their flood of rhetoric and self-serving statements, the real issue still remains. That crucial issue is whether we believe that the amazing wondrous diversity of life on this incredibly beautiful planet is worth preserving or whether through sheer indifference, or because of other priorities or because of economic considerations we will just let it die away forever. The governments have produced the law, now it is really upto the public in every part of this world to ensure that biodiversity remains a live issue, no pun intended!

POSTSCRIPT: After this article was written, President Clinton announced on 21st April 1993 that the United States would sign the Convention on Biological Diversity. As he explained: "We cannot walk away from challenges like those presented by the biodiversity treaty. We must step up to them."<sup>453</sup> The U.S. Administration indicated that a statement of interpretation would accompany the American signature. "White House officials said the interpretive statement . . . would assure American companies that they would not have to share technology with developing countries that provide resources for products manufactured by those companies."<sup>454</sup> President Clinton added that "[w]e think we have done the work necessary to protect the intellectual property of American industries and to protect the

---

452. Walter Russell Mead, *Earth Summit Turns Into Diplomats' Worst Nightmare*, EDMONTON J., June 8, 1992, at A8.

453. *Clinton Says He'll Sign Environmental Treaty*, GLOBE & MAIL, Apr. 22, 1993, at A10.

454. Richard Berke, *Clinton Supports Two Major Steps for Environment*, N.Y. TIMES, Apr. 22, 1993, at A1.

environment.”<sup>455</sup> The President expressed his belief that the difficulties had been worked out and that the effort would be supported by both the business and environmental communities.<sup>456</sup>

---

455. *Id.* at A4.

456. *Id.*



