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James T. McClymonds

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THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT: AN INTERNATIONAL LEGAL PERSPECTIVE*

I. INTRODUCTION

The earth is threatened by a mounting global environmental crisis. This crisis is due, in large part, to human activities that place tremendous strains on the natural processes that help keep the conditions of the planet within livable limits. One approach to addressing the problems of global environmental deterioration is to recognize the right to a healthy environment as a human right. Some commentators have suggested that such a right is already emerging as one of several third-generation "solidarity rights."¹ The right would protect people individually—a characteristic shared by all human rights²—by imposing more effective obligations on governments and by providing individual remedies for environmental deprivations. Beyond this individual component, the right would also protect people collectively—a characteristic shared by all "third-generation" rights³—by requiring collective action and cooperation

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1. Stephen P. Marks, *Emerging Human Rights: A New Generation for the 1980s?*, 33 RUTGERS L. REV. 435, 439-44 (1981) (noting that third-generation solidarity rights include the rights to a healthy "environment, development, peace, the common heritage, communication, and humanitarian assistance"). A number of writers have explored the existence of and the rationale for recognizing the right of an individual to a clean and healthy environment. See, e.g., ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW 21-31 (1991); W. PAUL GORMLEY, HUMAN RIGHTS AND ENVIRONMENT: THE NEED FOR INTERNATIONAL CO-OPERATION 48-55 (1976); W. Paul Gormley, *The Right to a Safe and Decent Environment*, 28 INDIAN J. INT'L L. 1 (1988); Charles Macchling, *The Emergent Right to a Decent Environment*, HUM. RTS., Aug. 1976, at 59, 68-73; Melissa Thorne, *Establishing Environment As a Human Right*, 19 DENV. J. INT'L L. & POL'Y 301 (1991); Henn-Jüri Uibopuu, *The Internationally Guaranteed Right of an Individual to a Clean Environment*, 1 COMP. L. Y.B. 101 (1977). For a discussion of environmental rights and whether the Bill of Rights to the United States Constitution should be amended to include them, see Eric T. Freyfogle, *Should We Green the Bill?*, 1992 U. ILL. L. REV. 159.

2. See generally Louis B. Sohn, *The New International Law: Protection of the Rights of Individuals Rather Than States*, 32 AM. U. L. REV. 1 (1982) (tracing the development of international human rights).

3. See Marks, *supra* note 1, at 441.

on the part of nation-states in addressing transboundary environmental problems.⁴

Two countervailing principles condition the right to a healthy environment: the right to development⁵ claimed by less developed nations, and traditional principles of state sovereignty that recognize a nation-state's right to control the people and resources within its territorial jurisdiction.⁶ The international community must contend with the interests represented by these principles as it attempts to address and solve the global environmental problems threatening the health and viability of the planet, and the values upon which human beings depend for lives of dignity and worth.

This note examines the development of the international human right to a healthy environment by both determining the extent to which the right has emerged in recent years and by outlining the scope and content of the right as it has emerged. In the first section, the mounting environmental crisis and its effects on human values are described.⁷ The second section explores the extent to which explicit recognition of the right to a healthy environment has emerged as a binding international legal principle.⁸ The emerging right to development and current developments regarding the principle of state sovereignty are explored as well.⁹ In the third section, current international environmental law is examined to glean the emerging principles that define the scope and content of the right.¹⁰ This note concludes in the fourth section by suggesting that although several important elements of the right have emerged under international law, other critical elements have not—particularly those relating to effective implementation and the individual's ability to bring claims.¹¹ In addition, this note argues that ultimately the countervailing right to development does not present an obstacle to the emergence of the right to a healthy environment because the growing awareness of the interrelationship between development and ecological health has already led to the incorporation of environmental-protection policies into development

4. *Id.* at 444.

5. See *Declaration on the Right to Development*, G.A. Res. 41/128, U.N. GAOR, 41st Sess., Supp. No. 53, at 186, U.N. Doc. A/41/53 (1987) [hereinafter *Development Declaration*].

6. See LUNG-CHU CHEN, AN INTRODUCTION TO CONTEMPORARY INTERNATIONAL LAW: A POLICY-ORIENTED PERSPECTIVE 117 (1989).

7. See *infra* text part II.

8. See *infra* text part III.A-C.

9. See *infra* text part III.D.

10. See *infra* text part IV.

11. See *infra* text part V.

practices.¹² Rather, the unwillingness of governments to concede sovereign authority presents the greatest barrier to the growth of the right. Until nation-states are willing to relinquish some measure of state sovereignty, the right to a healthy environment will remain unrealized.

II. THE GLOBAL ENVIRONMENTAL CRISIS

The 1980s were marked by increasing awareness and concern about the global environment. The decade was witness to several unprecedented disasters: the poison gas release in Bhopal, India, in 1984;¹³ the meltdown of a nuclear reactor at Chernobyl in the former Soviet Union,¹⁴ and the release of toxic chemicals into the Rhine River at Basel, Switzerland, in 1986;¹⁵ and the giant oil spill off the coast of Alaska, in 1989.¹⁶ These accidents were followed, in 1991, by the deliberate acts of environmental warfare Iraq perpetuated during the Persian Gulf War, namely, the dumping of millions of gallons of crude oil into the Persian Gulf and the deliberate destruction of hundreds of oil wells, sending dark, billowing clouds of toxic smoke and soot into the atmosphere.¹⁷

12. See *infra* text accompanying note 396.

13. See Philip M. Boffey, *Few Lasting Health Effects Found Among India Gas-Leak Survivors*, N.Y. TIMES, Dec. 20, 1984, at 1 (reporting on effects of the leak of methyl isocyanate gas by a Union Carbide chemical plant in Bhopal, India, in 1984, which killed 2,000 people and injured 150,000 more). See also David McIntyre, *India: Coming to Terms with the Bhopal Disaster*, 13 Int'l Envtl. Rep. (BNA) 121-22 (Mar. 1990) (stating that more than five years after the accident India was still struggling to deal with compensating victims and prosecuting those responsible).

14. See *The Nuclear Disaster*, N.Y. TIMES, Apr. 30, 1986, at A1 (reporting that in 1986 a nuclear reactor in Chernobyl sent a radioactive cloud over large parts of the Soviet Union, Eastern Europe, and Scandinavia, contaminating soil and water with radioactive iodine and threatening vital food supplies).

15. See Thomas W. Netter, *Mercury a Key Concern in Rhine Spill*, N.Y. TIMES, Nov. 15, 1986, at 3 (stating that officials believed that the 1986 fire in a chemical plant in Basel, Switzerland, resulted in the release of about 440 pounds of toxic chemicals into the Rhine River).

16. See Philip Shabecoff, *Largest U.S. Tanker Spill Spews 270,000 Barrels of Oil Off Alaska*, N.Y. TIMES, Mar. 25, 1989, at A1 (reporting that the Exxon Valdez ran aground in the Prince William Sound off the coast of Alaska, dumping hundreds of thousands of gallons of crude oil onto rich sea beds). See also Timothy Egan, *Fishermen Fear Spill Will Hurt Into the 90's*, N.Y. TIMES, Mar. 29, 1989, at B5 (focusing on the effects of the spill on fish, especially herring and salmon).

17. See generally WILLIAM M. ARKIN ET AL., *MODERN WARFARE AND THE ENVIRONMENT: A CASE STUDY OF THE GULF WAR* (May 1991) (available from Greenpeace International) [hereinafter GREENPEACE REPORT]. In another act of environmental warfare, from 2.5 to 4 million barrels of oil were intentionally dumped

In addition to the concern raised by these highly publicized disasters, there is growing concern over a wide range of problems confronting the planet that go beyond the deliberate acts of warring belligerents or the accidental releases from industrial developments.¹⁸ The life-support system of the earth is under enormous strain, largely due to the combined activities of people around the globe.¹⁹ Carbon, nitrogen, sulphur, and lead emissions from the burning of fossil fuels have created widespread air pollution and acidification.²⁰ Production of refrigerants and insulations has released chemicals into the atmosphere that react with and reduce the protective ozone layer, which shields the surface of the planet from the sun's harmful ultraviolet rays.²¹ Use of fossil fuel has increased atmospheric levels of carbon dioxide, which has led to concerns about global climate change due to the "greenhouse effect."²² Deforestation, loss of biodiversity, desertification, exhaustion of natural resources, and

into the Persian Gulf causing a spill that reached from Bubiyan Island in the north, to Bahrain in the south, threatening the Gulf's already fragile and endangered marine life, as well as the rich fishing grounds on which many in the region depend to make a living, and the desalinization plants on which they depend for fresh water. Other less obvious environmental effects of the Persian Gulf War were inflicted by both sides to the conflict, including the general degradation of the desert caused by the use of heavy mechanized weaponry, the continuing danger posed by unexploded mines and bombs, the as yet unknown damage caused by the destruction of chemical, biological, and nuclear weapons facilities, and the pollution of the Tigris River resulting from the destruction of Iraq's sewage treatment infrastructure. These environmental effects did not cease with the end of armed hostilities. As of May 1991, 63,000 gallons of crude oil were dumped into the Gulf and about 6 million barrels a day were still burning as raw sewage continued to flow into the region's waterways. *See id.* at 16-21, 55-72.

18. *See, e.g.*, WORLD COMM'N ON ENV'T AND DEV., OUR COMMON FUTURE (1987) [hereinafter BRUNDTLAND COMMISSION]. The World Commission on Environment and Development (WCED) is an international organization, composed of members from various nations acting in their individual capacity, concerned with environmental and developmental issues. Created as an independent body to allow it to act without the constraints of international politics, WCED's mandate is to study and make recommendations on environmental and developmental issues and foster cooperation at all levels of the international community. *See id.* at 3, 352.

19. *See id.* at 4-8.

20. *See, e.g.*, Hilary F. French, *Clearing the Air*, in *STATE OF THE WORLD 1990*, at 98 (Linda Starke ed., 1990).

21. *See, e.g.*, RICHARD E. BENEDICK, *OZONE DIPLOMACY: NEW DIRECTIONS IN SAFEGUARDING THE PLANET* 9-11 (1991). For a further discussion of ozone depletion and its relation to chlorofluorocarbons (CFCs), see NASA ET AL., *SCIENTIFIC ASSESSMENT OF STRATOSPHERIC OZONE: 1989*, at v-xxviii (1989); *Special Issue: CFC's and Stratospheric Ozone*, 19 *AMBIO* (Oct. 1990).

22. *See, e.g.*, Lester R. Brown, *The New World Order*, in *STATE OF THE WORLD 1991*, at 3, 8 (Linda Starke ed., 1991).

disposal of toxic chemicals and wastes all present difficult problems to humans around the world.²³

The consequences of this widening environmental crisis have a tremendous impact on many of the values that humans expect and demand for lives of dignity. Claims for well-being, including the right to a high standard of physical and mental health,²⁴ the right to liberty and security of person,²⁵ and even the right to life,²⁶ are compromised by air and water pollution, ozone depletion, and toxic-waste generation.²⁷ Claims to wealth, including the right to own property and the right to an adequate standard of living,²⁸ are threatened by deforestation and over-exploitation of natural resources as a growing population of humans strives to eke out a decent living on ever more marginal lands and diminishing resources.²⁹ Even claims for respect, including the right to individual dignity and worth, freedom from discrimination, and the right to equality and equal protection of the laws, are abused.³⁰ The cycle of poverty caused by environmental degradation robs people of the ability to fend for themselves, making the attainment of a life of dignity and worth ever more elusive.³¹ Traditional ways of life are rapidly disappearing as the ecosystems on which indigenous peoples depend are cleared for the profit

23. *See id.* at 6-9.

24. *See* International Covenant on Economic, Social and Cultural Rights, Dec. 16, 1966, art. 12, 993 U.N.T.S. 3, 8, 6 I.L.M. 360, 363 (entered into force Jan. 3, 1976) ("recogniz[ing] the right of everyone to the enjoyment of the highest attainable standard of physical and mental health").

25. *See Universal Declaration of Human Rights*, G.A. Res. 217 A (III), art. 3, U.N. Doc. A/810, at 71, 72 (1948) (stating that everyone has the right to "liberty and the security of person").

26. *Id.*

27. *See, e.g.,* French, *supra* note 20, at 98, 99-104; William K. Stevens, *Ozone Loss Over U.S. Is Found To Be Twice as Bad as Predicted*, N.Y. TIMES, Apr. 5, 1991, at 1.

28. *See Universal Declaration of Human Rights*, *supra* note 25, arts. 17, 25 (stating that "[e]veryone has the right to own property alone as well as in association with others" and that "[e]veryone has the right to a standard of living adequate for the health and well-being of himself and of his family").

29. *See* Alan B. Durning, *Ending Poverty*, in STATE OF THE WORLD 1990, at 135, 144-48 (Linda Starke ed., 1990). *See also* BRUNDTLAND COMMISSION, *supra* note 18, at 96-98 (noting development's effects on population growth and vice versa).

30. *See Universal Declaration of Human Rights*, *supra* note 25, arts. 1, 2, 6 (stating that "[a]ll human beings are born free and equal in dignity and rights," that "[e]veryone is entitled to all the rights and freedoms . . . without distinction of any kind" and that "[e]veryone has the right to recognition everywhere as a person before the law").

31. *See, e.g.,* Durning, *supra* note 29.

of international corporations and corrupt government officials.³² Situation of hazardous waste dumps primarily in poor and minority communities imposes disproportionate burdens and hazards on those communities and denies them equal protection.³³ In nations around the world, both developed and developing, fundamental human rights, such as freedom of opinion and expression,³⁴ freedom of peaceful assembly and association,³⁵ and freedom from arbitrary arrest and detention,³⁶ are violated when governments resort to violent and repressive methods in order to silence opposition to harmful development policies and suppress environmental debate.³⁷

The global environmental crisis affects developed and developing communities alike.³⁸ Air and water pollution do not respect political or cultural boundaries.³⁹ Global climate change potentially will affect living conditions around the world as rising sea levels threaten coastal regions and island states, and changing weather patterns turn once arable land into

32. See, e.g., HUMAN RIGHTS WATCH & THE NATURAL RESOURCES DEFENSE COUNCIL, *DEFENDING THE EARTH: ABUSES OF HUMAN RIGHTS AND THE ENVIRONMENT* 50-52 (1992) [hereinafter *DEFENDING THE EARTH*] (stating that "[y]ears of unaccountability have yielded a situation in which those who supposedly protect the environment are also the ones who profit most from its exploitation"); *Blood for Oil: A Global War*, ACTION ALERT NO. 58 (Rainforest Action Network, San Francisco, Cal.), Mar. 1991; *Get Mitsubishi Out of the Rainforest*, ACTION ALERT NO. 52 (Rainforest Action Network, San Francisco, Cal.), Sept. 1990; *U.S. Mining Threatens Indonesian Forest*, ACTION ALERT NO. 54 (Rainforest Action Network, San Francisco, Cal.), Nov. 1990.

33. See COMMISSION FOR RACIAL JUSTICE, *TOXIC WASTES AND RACE IN THE UNITED STATES* at xiii (1987) (stating that U.S. "[c]ommunities with the greatest number of commercial hazardous waste facilities had the highest composition of racial and ethnic residents"); see also Kelly M. Colquette & Elizabeth A. H. Robertson, *Environmental Racism: The Causes, Consequences, and Commendations*, 5 TUL. ENVTL. L.J. 153 (1991) (discussing evidence of environmental racism in the United States); Marrienne Lavelle & Marcia Coyle, *Unequal Protection: The Racial Divide in Environmental Law*, NAT'L L.J., Sept. 21, 1992, at S1 (special investigation of racial discrimination in the way the U.S. government cleans up toxic waste sites and punishes polluters).

34. See *Universal Declaration of Human Rights*, *supra* note 25, art. 19 (stating that "[e]veryone has the right to freedom of opinion and expression").

35. See *id.* art. 20 (stating that "[e]veryone has the right to freedom of peaceful assembly and association").

36. See *id.* art. 9 (stating that "[n]o one shall be subjected to arbitrary arrest, detention or exile").

37. See generally *DEFENDING THE EARTH*, *supra* note 32 (nine case studies in nine different nations documenting the link between human rights and environmental abuses).

38. See Lester R. Brown et al., *A World at Risk*, in *STATE OF THE WORLD* 1989, at 3, 3-5 (Linda Starke ed., 1989).

39. See *id.*

desert.⁴⁰ Desertification, the process whereby productive arid and semi-arid land is rendered economically unproductive by unsustainable agricultural practices, has regional impact, while deforestation and the destruction of many species of animals and plants deprive the world of potentially important medicines and chemicals.⁴¹ Even international peace and security may be compromised when people seek to gain control over diminishing resources.⁴² Conflicts in the Middle East over the struggle to control the production of oil symbolize the kind of crises diminishing resources may inspire.⁴³

III. THE EMERGING RIGHT TO A HEALTHY ENVIRONMENT

A. *The Basis for the Right to a Healthy Environment*

In response to the widening global environmental crisis, participants throughout the international community have mobilized to address environmental concerns. At the international level, particularly in the last decade, agreements addressing various environmental concerns have proliferated.⁴⁴ International and regional intergovernmental organizations have developed to address environmental-protection concerns.⁴⁵

40. See, e.g., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, POLICYMAKERS SUMMARY OF THE SCIENTIFIC ASSESSMENT OF CLIMATE CHANGE 1-3 (1990); Lester R. Brown & Christopher Flavin, *The Earth's Vital Signs*, in STATE OF THE WORLD 1988, at 16-18 (Linda Starke ed., 1988).

41. See BRUNDTLAND COMMISSION, *supra* note 18, at 34-35.

42. See *id.* at 291-94.

43. See *id.* at 292.

44. See, e.g., Adjustments and Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, June 29, 1990, 30 I.L.M. 539 [hereinafter London Revisions]; Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Mar. 22, 1989, 28 I.L.M. 657 [hereinafter Basel Convention]; Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 26 I.L.M. 1550 (entered into force Jan. 1, 1989) [hereinafter Montreal Protocol]; Vienna Convention for the Protection of the Ozone Layer, *opened for signature* Mar. 22, 1985, T.I.A.S. No. 11097, 26 I.L.M. 1529 (entered into force Sept. 22, 1988) [hereinafter Vienna Ozone Convention]; United Nations Convention on the Law of the Sea, Dec. 10, 1982, U.N. Doc. A/CONF.62/122 (1982), *reprinted in* 21 I.L.M. 1261 [hereinafter UNCLOS]; Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, 18 I.L.M. 1442 (entered into force Mar. 16, 1983) [hereinafter LRTAP].

45. See Mark A. Gray, *The United Nations Environment Programme: An Assessment*, 20 ENVTL. L. 291, 292-95 (1990). At the international level, a prominent United Nations agency devoted to environmental issues is the United Nations Environment Programme (UNEP). Other U.N. agencies involved in environmental issues include the Food and Agriculture Organization (FAO), the World Health Organization

Individual nation-states are increasingly active in the protection of the environment, both within their own borders through domestic legislation and the creation of environmental protection agencies, and through bilateral agreements with neighboring nation-states.⁴⁶ Nongovernmental organizations (NGOs) and political parties have been particularly effective in promoting environmental issues, both in developing international agreements, as well as applying international environmental law.⁴⁷

Finally, individuals have persevered to force action to protect the environment.⁴⁸ In some situations, individual activism is very costly, with efforts to stop environmental degradation rising virtually to the level of warfare.⁴⁹ Among those who have given their lives in the "ecology wars" is Chico Mendes, the Brazilian rubber tapper, trade unionist, and environmental activist, who was murdered on December 22, 1988, allegedly for his outspoken defense of the rights of indigenous peoples and the environments on which they depend.⁵⁰

(WHO), the International Labor Organization (ILO), the World Meteorological Organization (WMO), and the International Atomic Energy Agency (IAEA). *Id.* at 292. See Posanyi J. Madati & Edward J. Kormondy, *Introduction*, in *INTERNATIONAL HANDBOOK OF POLLUTION CONTROL* 1, 14-17 (Edward J. Kormondy ed., 1989). Regional intergovernmental organizations, including the Council of Europe, the European Economic Community (EEC), the Organization of African Unity (OAU), and the Organization of American States (OAS), all have environmental programs. See Allen L. Springer, *International Aspects of Pollution Control*, in *INTERNATIONAL HANDBOOK OF POLLUTION CONTROL* 19, 28-29 (Edward J. Kormondy ed., 1989).

46. See generally, [Reference File] Int'l Envtl. Rep. (BNA) (survey of the environmental laws and institutions being developed in various nations).

47. See LYNTON K. CALDWELL, *INTERNATIONAL ENVIRONMENTAL POLICY: EMERGENCE AND DIMENSIONS* 111-17 (2d ed. 1990) (stating that among the most prominent multinational NGOs are Greenpeace and Friends of the Earth, while prominent domestic organizations include the Sierra Club and the National Audubon Society in the United States, the Federation Française de la Nature in France, and the Deutscher Jagdschultz-Verband in Germany). The transnational Green Party is also steadily developing support in Europe and has had some success in electing representatives to legislatures there. See, e.g., Stephen Kinzer, *Kohl Loses State Election to Socialist-Green Coalition*, N.Y. TIMES, Jan. 22, 1991, at A3; Marlise Simons, *A Green Party Mayor Takes on Industrial Filth of Old Cracow*, N.Y. TIMES, Mar. 25, 1990, at A18.

48. Madati & Kormondy, *supra* note 45, at 17. Collective activism includes participation in events such as Earth Day 1990, which featured activities in 132 countries despite lack of support by many governments. See *Worldwide Plans for Earth Day Include Tree Planting, Funeral for Lake*, 13 Int'l Envtl. Rep. (BNA) 177-79 (Apr. 1990).

49. See, e.g., DAVID DAY, *THE ENVIRONMENTAL WARS: REPORTS FROM THE FRONT LINES* (1989).

50. See *Brazil: The Murder of Chico Mendes*, HUM. RTS. INTERNET REP., Spring 1989, at 33, 33-34 (1989). See also *DEFENDING THE EARTH*, *supra* note 32, at 1-9

Calls for the recognition of environmental rights as human rights stand out among the demands for the protection of environmental values.⁵¹ One commentator has suggested that the right to a healthy environment is one of several "third generation" or "solidarity" rights that might be seen to have emerged under international law during the 1980s.⁵² The first generation of human rights includes the civil and political rights that emerged at the time of the American and French revolutions.⁵³ These rights are "negative" rights, or freedom *from* governmental intervention.⁵⁴ The second-generation rights include the social, economic, and cultural rights that emerged during the socialist revolutions of the early twentieth century.⁵⁵ These rights are "positive" rights in that they represent claims *to* government intervention on behalf of the individual.⁵⁶

The third generation of rights, or "solidarity" rights, are associated with the post-World War II anti-colonial revolutions that introduced the principles of self-determination and nondiscrimination.⁵⁷ "Solidarity" rights "infuse the human dimension into areas . . . [traditionally lacking such concern, and] they can be realized only through the concerted efforts of all actors" at all levels in the international community.⁵⁸ Six areas of rights are suggested as emerging third-generation rights: environment,

(reporting on violence in rural Brazil against rural workers and landless peasants in the rainforests); DAY, *supra* note 49 (honoring others who have died in the front lines of the "ecology wars," including Dian Fossey, Fernando Pereira, Hilda Murrell, Valery Rinchinov, Joy Adamson, Karen Silkwood, and Guy Bradley).

51. See, e.g., BRUNDTLAND COMMISSION, *supra* note 18, at 330-34.

52. See Marks, *supra* note 1, at 442.

53. See *id.* at 437-38.

54. See *id.* at 438.

55. See *id.* at 438-39.

56. See *id.* Second-generation rights include, *inter alia*, the right to work, the right to social security, the right to an adequate standard of living, the right to the highest attainable standard of physical and mental health, the right to education, and the right to take part in cultural life and to benefit from scientific progress. See International Covenant on Economic, Social and Cultural Rights, *supra* note 24.

57. See Marks, *supra* note 1, at 440.

58. *Id.* at 441 (quoting Karel Vasak, Inaugural Lecture at the Tenth Study Session of the International Institute of Human Rights (July 1979)).

development, peace, the common heritage, communication, and humanitarian assistance.⁵⁹

Protecting environmental values through the recognition of a human right to a healthy environment offers attractive advantages. First, the global nature of the current environmental crisis requires the cooperation of all participants in the international community.⁶⁰ Problems such as transboundary pollution, ozone depletion, and climatic change know no political or cultural boundaries and are often beyond the ability of individual nation-states to solve.⁶¹ Even problems such as desertification, deforestation, and resource depletion—problems that may occur entirely within a nation-state's territory—have effects that reach beyond national borders.⁶² The cooperation of the world community is necessary, therefore, not only to address transboundary environmental issues, but also to promote and implement environmental policies within nation-states.⁶³ Recognition of the human right to a healthy environment would impose the moral and legal obligations on nation-states to cooperate in addressing these problems, not only among themselves, but also internally.⁶⁴

The second advantage of recognizing a healthy environment as a human right is that individuals necessarily benefit when a value receives the status of a human right under international law.⁶⁵ Historically, only nation-states were considered the "appropriate 'subjects' of international law."⁶⁶ Individuals were considered merely the "objects" of international law, enjoying its benefits "only indirectly, as bestowed by the nation-state . . . [and lacking] direct access to transnational tribunals."⁶⁷ Recently,

59. *Id.* at 442. "The right to *benefit from the common heritage of mankind*" is the right to benefit equally from the development of areas outside national jurisdiction, including the deep sea-bed, "space, bodies in space, the Antarctic . . . cultural traditions and scientific" advances. *Id.* at 447.

60. *See id.* at 444.

61. *See, e.g.,* Brown et al., *supra* note 38, at 16-20.

62. *See, e.g.,* BRUNDTLAND COMMISSION, *supra* note 18, at 32-35 (stating that transboundary effects include climate change, air pollution, ozone depletion, reduction in food production, increases in soil erosion, and loss of biological diversity).

63. *See id.* at 312-13.

64. *See* EXPERTS GROUP ON ENVIRONMENTAL LAW OF THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, ENVIRONMENTAL PROTECTION AND SUSTAINABLE DEVELOPMENT: LEGAL PRINCIPLES AND RECOMMENDATIONS 40 (1986) [hereinafter BRUNDTLAND PRINCIPLES].

65. *See* Sohn, *supra* note 2, at 1 (stating that nations "have had to concede to ordinary human beings the status of subjects of international law, to concede that individuals are no longer mere objects, mere pawns in the hands of states").

66. CHEN, *supra* note 6, at 76.

67. *Id.* at 77.

however, the trend in human-rights law is the gradual recognition that individuals are both the subjects *and* the objects of international legal protections.⁶⁸ As a result, individuals increasingly are given access to international tribunals and human rights commissions to press claims when governments are unwilling to do so on their behalf or when governments themselves are the human-rights violators.⁶⁹ Recognizing environmental rights as human rights would require nation-states either to recognize the claims of individuals and provide remedies and compensation for those whose rights have been violated,⁷⁰ or to face the sanction of the international community.⁷¹

In light of the foregoing, a question arises: To what extent has an express human right to a healthy environment emerged under international law? An answer requires an examination of the sources of international legal obligations.

B. Sources of International Obligations

International obligations arise from a variety of sources. The Statute of the International Court of Justice⁷² (ICJ) provides a nonexhaustive formulation of the sources generally relied upon to determine the content of international obligations.⁷³ Article 38 provides that

[t]he Court . . . shall apply: a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states; b. international custom, as evidence of a general practice accepted as law; c. the general principles of law recognized by civilized nations; [and] d. . . . judicial decisions and the teachings of the most highly qualified publicists of the

68. See, e.g., Sohn, *supra* note 2, at 2-17 (discussing the progressive development of protection of individuals under international law).

69. See CHEN, *supra* note 6, at 98-103 (describing the trend towards extending procedural standing to individuals before international human rights tribunals).

70. See Marks, *supra* note 1, at 444 (stating that "[t]he individual [environmental] right is the right of any victim . . . of an environmentally damaging activity to obtain the cessation of the activity and reparation for the damage suffered").

71. *Id.* at 451.

72. Statute of the International Court of Justice, June 26, 1945, 59 Stat. 1055, 3 Bevans 1153 (entered into force Oct. 24, 1945) [hereinafter I.C.J. Statute].

73. See KISS & SHELTON, *supra* note 1, at 95.

various nations, as subsidiary means for the determination of rules of law.⁷⁴

The development of international agreements, including treaties, conventions, and protocols, is the most formal, organized, and deliberate process for creating legal obligations among nation-states.⁷⁵ Although there is no centralized legal process at the international level, the process of communication that results in the completion of international agreements is similar to the development of legislation within domestic legal systems.⁷⁶ Parties to international agreements create specific legal obligations through negotiation, and they consent to be bound by those obligations through ratification or other processes of acceptance.⁷⁷ In general, however, nation-states are not bound by international agreements to which they are not parties.⁷⁸ Thus, an international agreement would not create obligations applicable to the entire international community unless all nation-states became parties.

Customary international law, on the other hand, provides obligations that generally bind all nation-states in the international community.⁷⁹ However, the development of customary law is also the "least deliberative"⁸⁰ process of international lawmaking. For a principle to emerge as a customary norm, it must reflect "a general and consistent practice of states followed by them from a sense of legal obligation," or *opinio juris*.⁸¹ The practice does not have to be universal, but it must be uniformly applied by an overwhelming majority of the states that are able

74. I.C.J. Statute, *supra* note 72, art. 38, para. 1, 59 Stat. at 1060, 3 Bevans at 1187.

75. See CHEN, *supra* note 6, at 264.

76. See *id.*

77. See Vienna Convention on the Law of Treaties, May 23, 1969, art. 11, 1155 U.N.T.S. 331, 335, 8 I.L.M. 679, 684 (entered into force Jan. 27, 1980) [hereinafter Vienna Treaty Convention]. See also Richard D. Kearney & Robert E. Dalton, *The Treaty of Treaties*, 64 AM. J. INT'L L. 495, 495 (1970) (stating that the Vienna Convention on the Law of Treaties is considered the crucial codification of international customary law regarding international agreements).

78. Vienna Treaty Convention, *supra* note 77, art. 34, 1155 U.N.T.S. at 341, 8 I.L.M. at 693 (providing that "[a] treaty does not create either obligations or rights for a third State without its consent").

79. See CHEN, *supra* note 6, at 361-69.

80. *Id.* at 361.

81. RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE UNITED STATES § 102, para. 2 (1986). *Opinio juris* means "that states follow the practice from a sense of legal obligation." *Id.* at cmt. c.; see also IAN BROWNLIE, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 4-11 (4th ed. 1990).

to apply it.⁸² Furthermore, the practice must be accompanied by the requisite *opinio juris*, the feeling that the behavior is practiced out of a sense of legal duty.⁸³ This subjective element may be either evidenced by the express statements of parties involved or inferred from state practice.⁸⁴

Traditionally, the relevant behavior had to be practiced over time in order for the expectation of authoritativeness to be clearly established.⁸⁵ With the development of intergovernmental organizations and the advent of modern communications, however, this temporal element has become less important as indications of the requisite *opinio juris* become clear over shorter periods of time.⁸⁶ For example, resolutions adopted by an overwhelming majority of the members of the United Nations may become "instant" customary law if their adoption is accompanied by evidence of the legally binding authority of the resolutions.⁸⁷ In addition, the principles in international agreements may crystallize into customary norms if the obligations they create are uniformly practiced over time.⁸⁸ However, the lack of deliberation in the development of such customary law often obscures the distinction between rules *lex lata* ("hard" or positive law) and rules *de lege ferenda* ("soft" law or "law in the making").⁸⁹

82. See, e.g., *The Scotia*, 81 U.S. (14 Wall.) 170 (1871) (finding that use of colored lights on sailing vessels was customary law because of the general acceptance by nations constituting the commercial world). Compare, e.g., *Asylum Case* (Colom. v. Peru), 1950 I.C.J. 266, 272-88 (Nov. 20) (noting so much fluctuation and discrepancy in the exercise of and conventions concerning political asylum that there was no uniform usage).

83. See CHEN, *supra* note 6, at 361 (quoting *North Sea Continental Shelf Cases* (F.R.G. v. Den.; F.R.G. v. Neth.), 1969 I.C.J. 4, 44 (Feb. 20) (finding that "[t]he States concerned must therefore feel that they are conforming to what amounts to a legal obligation"))).

84. See BROWNLEE, *supra* note 81, at 11.

85. See CHEN, *supra* note 6, at 363-64.

86. See *id.* at 364-69; BROWNLEE, *supra* note 81, at 5.

87. See BROWNLEE, *supra* note 81, at 14-15.

88. See *id.* at 12-13; see also CHEN, *supra* note 6, at 367-69 (suggesting that the principles contained in the *Universal Declaration of Human Rights*, which were intended only as guiding principles without legally binding authority, have emerged as binding customary law due to their incorporation into subsequent international agreements and evidence of their widespread acceptance).

89. See Marks, *supra* note 1, at 437 (stating that *lex lata* are laws that have become binding; *de lege ferenda* laws are emerging but not yet accepted as legally binding). For a discussion of trends in international environmental lawmaking, especially the development of "soft law," see Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AM. J. INT'L L. 259 (1992).

C. Has the Right to a Healthy Environment Emerged?

The World Commission on Environment and Development (WCED) recently proposed to the United Nations that the world community expressly recognize environmental rights as human rights.⁹⁰ WCED's working group of legal experts offered an express formulation of the right in article 1 of its *General Principles Concerning Natural Resources and Environmental Interferences*,⁹¹ by proposing that "[a]ll human beings have the fundamental right to an environment adequate for their health and well-being."⁹² This formulation purports to "establish a fundamental right of human beings to an adequate environment vis-a-vis other human beings or entities created by man such as States."⁹³

The fundamental right to a healthy environment, however, has not been expressly adopted by the international community. Indeed, there is no international convention recognizing the right to a healthy environment.⁹⁴ To date, the Stockholm Declaration of the United Nations Conference on the Human Environment, promulgated in 1972,⁹⁵ is the most authoritative expression of the right to a healthy environment.⁹⁶ Principle 1 of the Declaration provides that "[m]an has the fundamental right to freedom, equality, and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations."⁹⁷

The usefulness of principle 1 of the Stockholm Declaration as a statement of binding customary law, however, is doubtful. The Declaration was not intended as binding international law but as a set of

90. See BRUNDTLAND COMMISSION, *supra* note 18, at 330-33, 348.

91. See BRUNDTLAND PRINCIPLES, *supra* note 64.

92. *Id.* at 38.

93. *Id.* at 40.

94. *Id.*

95. STOCKHOLM DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT, U.N. Doc. A/CONF.48/14 and Corr.1 (1972), *reprinted in* 11 I.L.M. 1416 [hereinafter STOCKHOLM DECLARATION]. The Stockholm Declaration was the product of the first world conference on the environment held in Stockholm in 1972; it contains 26 principles regarding the relationship between humans and the natural environment upon which they depend for life. *See id.*

96. *See, e.g.,* Paul R. Muldoon, *The International Law of Ecodevelopment: Emerging Norms for Development Assistance Agencies*, 22 TEX. INT'L L.J. 1, 14 (1986) (referring to the Stockholm Declaration's 26 principles as "the cornerstone of international environmental policy and ecodevelopment norms").

97. STOCKHOLM DECLARATION, *supra* note 95, princ. 1, 11 I.L.M. at 1417-18.

guiding principles and goals towards which nation-states pledged to strive.⁹⁸ Despite overwhelming support in the U.N. General Assembly,⁹⁹ acceptance of the Declaration by the member states lacked the requisite uniformity to give rise to customary law.¹⁰⁰ Several participants at the conference expressed reservations regarding the principles contained within the document,¹⁰¹ and the Soviet Union and other Eastern European nations did not even attend.¹⁰² Furthermore, the negotiations concerning the text of principle 1 failed to indicate consensus over the existence of an individual right to an adequate environment.¹⁰³ Principle 1 does not expressly recognize the right, referring merely to the right to "freedom, equality, and adequate conditions of life,"¹⁰⁴ and direct references to a right to "a safe, healthy, and wholesome environment" were omitted from the final draft.¹⁰⁵

Despite the experience of the Stockholm Declaration, negotiations in preparation for the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, in June 1992,¹⁰⁶

98. See Louis B. Sohn, *The Stockholm Declaration on the Human Environment*, 14 HARV. INT'L L.J. 423, 426-27 (1973).

99. See BURNS H. WESTON ET AL., BASIC DOCUMENTS IN INTERNATIONAL LAW AND WORLD ORDER 943 (2d ed. 1990) [hereinafter BASIC DOCUMENTS] (reporting that the Stockholm Declaration was adopted 103 for, 0 against, and 12 abstaining).

100. See CHEN, *supra* note 6, at 364.

101. See Sohn, *supra* note 98, at 432-33 (noting that some nations expressed reservations about the declaration's lack of ideological balance, emphasis on the human environment, and its references to internal policies).

102. *Id.* at 431 n.36 (noting that the former Soviet Union "and other Eastern European countries boycotted the Conference to protest the exclusion of East Germany").

103. See *id.* at 451-55 (stating that some states argued that the declaration should begin with a general recognition that every human being has a "right to a wholesome environment," while others felt that an individual right to a healthy environment was "not really compatible with some national legal systems").

104. *Id.* at 455.

105. *Id.*

106. The United Nations Conference on Environment and Development (UNCED), which met from June 3-14, 1992, in Rio de Janeiro, Brazil, marked the twentieth anniversary of the Stockholm Conference. See Edith Brown Weiss, *United Nations Conference on Environment and Development: Introductory Note*, 31 I.L.M. 814. At UNCED, more than 170 nations met to debate issues regarding environmental protection and development. See *id.* The most significant documents adopted there included the Rio Declaration, *Agenda 21* (an 800-page document outlining actions to be taken by States for accomplishing sustainable development), conventions on global climate change and on biological diversity, and a statement of principles on forests. See *id.*; see also 1 AGENDA 21 & THE UNCED PROCEEDINGS, at xv-xx (Nicholas A. Robinson ed., 1992).

suggested that the international community might be ready to recognize expressly the existence of a human right to a healthy environment—if only in the form of a nonbinding statement of principles.¹⁰⁷ The UNCED Secretariat included the duty to protect individual rights to environment and development among the duties contained in an early draft of the Rio Declaration, or Earth Charter, as the UNCED's written product came to be known.¹⁰⁸ In addition, proposals received from both Australia and Peru included express recognition of the right to a healthy environment.¹⁰⁹

In its final form, however, the Rio Declaration begins with a statement of environmental rights that is even more ambiguous than the Stockholm Declaration. Principle 1 of the Rio Declaration states merely that "[h]uman beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."¹¹⁰ Equivocation like this suggests that, twenty years after the Stockholm Conference, the international community still refuses to recognize a right to a healthy environment unless it is couched in terms of other rights or entitlements.

At the regional level, the Organization of African Unity¹¹¹ expressly

(overview of the UNCED proceedings and description of the development of the consensus that led to the convening of UNCED).

107. The Rio Declaration adopted at UNCED, which states 27 principles on the environment and development, "is the conference's counterpart to the Stockholm Declaration on the Human Environment." Brown Weiss, *supra* note 106, at 816. It was conceived as a non-binding statement of principles. See, e.g., U.S. DEP'T OF STATE, UNCED PREPCOM III STATEMENT OF U.S. POSITION: STATEMENT OF GENERAL PRINCIPLES 2 (Aug. 20, 1991) (available from U.S. UNCED Coordination Center, U.S. Dep't of State) (discussing the need to address "the lack of effect given existing instruments and statements of principles" rather than draft new instruments, but also stating that the United States is "eager to discuss the issues and ideas that might be embodied in this or some other document containing non-binding principles").

108. See UNITED NATIONS GENERAL ASSEMBLY, PREPARATORY COMM. FOR THE UNITED NATIONS CONFERENCE ON ENV'T AND DEV., WORKING GROUP III; ANNOTATED CHECK-LIST OF PRINCIPLES ON GENERAL RIGHTS AND OBLIGATIONS, U.N. Doc. A/CONF.151/PC/78 (1991).

109. See UNITED NATIONS GENERAL ASSEMBLY, PREPARATORY COMM. FOR THE UNITED NATIONS CONFERENCE ON ENV'T AND DEV., WORKING GROUP III; INFORMAL CONSOLIDATED DRAFT NO. 2, U.N. Doc. A/CONF.151/PC/None No. 9, princ. 3 [hereinafter INFORMAL CONSOLIDATED DRAFT NO. 2], reprinted in AGENDA 21 & THE UNCED PROCEEDINGS, *supra* note 106, at cxv, cxix-cxx.

110. RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT, June 13, 1992, princ. 1, U.N. Doc. A/CONF.151/5/Rev. 1 (1992), reprinted in 31 I.L.M. 876 [hereinafter RIO DECLARATION].

111. See Charter of the Organization of African Unity, May 25, 1963, 479

recognizes the right to a healthy environment.¹¹² The African Charter on Human and Peoples' Rights¹¹³ provides that "[a]ll peoples shall have the right to a general satisfactory environment favorable to their development."¹¹⁴ However, reference to other regional legislation fails to establish the de jure recognition of environmental rights as "general principles of law recognized by civilized nations"¹¹⁵ that the ICJ statute specifies as a source of binding international law. Attempts to include the right in other regional human rights documents have been unsuccessful. For example, although an amendment to the American Convention on Human Rights expressly recognizes the right to a healthy environment, it has not yet entered into force.¹¹⁶ Efforts to include the right in the European Convention for the Protection of Human Rights and Fundamental Freedoms¹¹⁷ were also unsuccessful.¹¹⁸

At the national level, several nations recognize the right to a healthy environment in their constitutions.¹¹⁹ Here again, however, the number

U.N.T.S. 39, 2 I.L.M. 766. The Organization of African Unity was established by 50 African states:

- a. to promote the unity and solidarity of the African States;
- b. to coordinate . . . efforts to achieve a better life for the peoples of Africa;
- c. to defend their sovereignty, their territorial integrity and independence;
- d. to eradicate all forms of colonialism from Africa; and
- e. to promote international co-operation having due regard to the Charter of the United Nations and the Universal Declaration of Human Rights.

Id. art. 2, 479 U.N.T.S. at 72, 2 I.L.M. at 767.

112. *See* African Charter on Human and Peoples' Rights, June 26, 1981, art. 24, OAU Doc. CAB/LEG/67/3/Rev.5, reprinted in 21 I.L.M. 59 (entered into force Oct. 21, 1986) (recognizing the right of all peoples to a "satisfactory environment").

113. *Id.*

114. *Id.* art. 24, 21 I.L.M. at 630.

115. I.C.J. Statute, *supra* note 72, art. 38, para. 1(c), 59 Stat. at 1060, 3 Bevans at 1187.

116. Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, *opened for signature* Nov. 17, 1988, art. 11, 28 I.L.M. 161, 165 (recognizing the right to a healthy environment). The Additional Protocol will enter into force when 11 states have deposited their instruments of ratification or accession. *Id.* art. 21, 28 I.L.M. at 1690. As of 1991, 14 states had signed the Protocol, and one had deposited its instrument of accession. *See Recent Actions Regarding Treaties to which the United States Is Not a Party*, 30 I.L.M. 1148.

117. Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, 213 U.N.T.S. 221 (entered into force Sept. 3, 1953).

118. *See* BRUNDTLAND PRINCIPLES, *supra* note 64, at 40 (noting failure to obtain required support).

119. *See* KISS & SHELTON, *supra* note 1, at 22-23. As of September 1988, approxi-

of nation-states that have done so is insufficient to establish a general principle of law.¹²⁰ Furthermore, while a significant number of nation-states have adopted environmental legislation and created environmental protection agencies,¹²¹ these actions are insufficient evidence that the right to a healthy environment has emerged as a general practice of states.¹²²

Although the express recognition of the right to a healthy environment has not been firmly established as a principle of international law, it may nonetheless be emerging. If international law protects the underlying elements of the right, it might be argued that the right has emerged *de facto*, merely lacking formal establishment. One commentator suggests that such *de facto* emergence is a common feature of the emerging "solidarity" rights:¹²³

In most cases, before there is an attempt to postulate a "right to . . ." there is the development of a "law of . . ." In other words, a new body of legal norms or a revision of legal thinking on a given problem provides the conceptual framework for identifying first the legal implications of the problem, then the human rights implications, and finally the reformulation of the whole problem in terms of a new human right.¹²⁴

With regard to the right to a healthy environment, this process appears to be underway. As the next section explores, the last two decades have seen the growth of a new body of international legal norms concerning the environment.¹²⁵ Moreover, efforts to identify the effects of

mately 50 nations proclaimed a right to a healthy environment in their constitutions. These countries included Albania, Australia, Austria, Bahrain, Belgium, Brazil, Bulgaria, Burma, Canada, Chile, China, Costa Rica, Czechoslovakia, Federal Republic of Germany, Ecuador, El Salvador, Equatorial Guinea, Ethiopia, German Democratic Republic, Greece, Guatemala, Guyana, Haiti, Honduras, Hungary, India, Indonesia, Iran, Italy, Japan, Korea, Malta, Mexico, The Netherlands, Nicaragua, Panama, Papua New Guinea, Peru, Philippines, Poland, Portugal, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, U.S.S.R., United Arab Emirates, Vanuatu, Vietnam, Yemen, and Yugoslavia. See EDITH BROWN WEISS, *IN FAIRNESS TO FUTURE GENERATIONS* 297-327 (1988).

120. See *supra* notes 73-74 and accompanying text.

121. See generally [Reference File] Int'l Env'tl. Rep. (BNA) (survey of environmental protection institutions created within several national jurisdictions).

122. See BRUNDTLAND PRINCIPLES, *supra* note 64, at 42.

123. See Marks, *supra* note 1.

124. *Id.* at 442.

125. See *infra* notes 207-393 and accompanying text.

environmental degradation on human rights are underway.¹²⁶ UNCED's failure to adopt an express recognition of environmental rights¹²⁷ does not diminish the significance of these developments; it merely suggests that the process has not reached the stage where nation-states are ready to take the final step and reformulate environmental problems in terms of a new human right.

If the right to a healthy environment has in fact emerged, the nature and scope of the protections it affords under current international environmental law must be explored. Necessary to that analysis, however, is a preliminary examination of two countervailing principles that condition the emergence of the right.

D. *Countervailing Norms to the Right to a Healthy Environment*

1. The Right to Development

Conditioning the recognition of the human right to a healthy environment are several countervailing norms that enjoy widespread recognition within the international community. One such norm is another of the emerging third-generation rights, the right to development.

The claim to a right to development has emerged in the last two decades largely from concerns and demands of less developed countries (LDCs)¹²⁸—demands and concerns that are derived from several problems facing LDCs. One major concern relates to the connection between the existing international economic order and human rights.¹²⁹ This concern has two components. The first addresses concern regarding the effects of abject poverty on the conditions of life.¹³⁰ People living in poverty are predominantly illiterate and can expect to live on average twenty-four years less than people in industrialized economies.¹³¹ As one

126. See KISS & SHELTON, *supra* note 1, at 29. For example, the United Nations Commission on Human Rights has commissioned a study on human rights and the environment. See United Nations Commission on Human Rights, *Human Rights and the Environment*, Res. 1991/4, U.N. ESCOR, 1991, Supp. No. 2, at 108, 109-10, U.N. Doc. E/1991/22 (1991). See also DEFENDING THE EARTH, *supra* note 32 (collecting case studies on environmental activism around the world).

127. See *supra* notes 105-09 and accompanying text.

128. See, e.g., Marks, *supra* note 1, at 444-45.

129. See Philip Alston, *Development and the Rule of Law: Prevention Versus Cure as a Human Rights Strategy*, in DEVELOPMENT, HUMAN RIGHTS AND THE RULE OF LAW 31, 88 (1981).

130. See *id.* at 88-89.

131. See *id.* at 88. In 1980, the number of people living in abject poverty in developing countries (excluding China and other centrally planned economies) was

commentator points out, these conditions cannot be improved "[w]ithout the support provided by more equitable patterns of world production, trade, financial flows and resource transfers."¹³² The second concern addresses the more direct effects of the old economic order.¹³³ The pursuit of militarism by ruling elites in many LDCs, the reinforcement of repressive mechanisms for the control of society, and the exploitation of cheap labor by many national governments with the support of the international economic order cause direct violations of human rights norms.¹³⁴

The right to development grew in response to the demands of developing nations. The right has been powerfully articulated through the efforts of the Group of 77¹³⁵ in the U.N. General Assembly.¹³⁶ The codification of the right is expressed in the Declaration on the Right to Development,¹³⁷ which provides: "The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized."¹³⁸ Similarly, at the regional level, the African Charter on Human and Peoples' Rights¹³⁹ provides that "[s]tates shall have the duty, individually or collectively, to ensure the exercise of the right to development."¹⁴⁰

As elaborated under international law, the right to development contains several basic elements. First, the principle of sovereignty over a State's natural resources is expressed in the Resolution on Permanent Sovereignty Over Natural Resources.¹⁴¹ The Resolution provides that

estimated at 780 million; 600 million adults in developing countries are illiterate; one-third of the primary school-age children are not in school. *Id.*

132. *Id.* at 89.

133. *See id.*

134. *See id.*

135. The Group of 77 refers to the group of developing nations, now numbering more than 120, that, voting as a bloc, have used their two-thirds majority in the United Nations General Assembly to pass numerous resolutions. *See CHEN, supra* note 6, at 29-30.

136. *See* U.N. CHARTER art. 9. The United Nations General Assembly is one of the principal organs of the United Nations and is composed of all member-states. *See id.* arts. 7, 9. It has evolved into a worldwide forum for expressing the goals and aspirations of all nations of the world. *See CHEN, supra* note 6, at 51.

137. *Development Declaration, supra* note 5.

138. *Id.* art. 1, para. 1.

139. African Charter on Human and Peoples' Rights, *supra* note 112.

140. *Id.* art. 22, para. 2, 21 I.L.M. at 620.

141. *Resolution on Permanent Sovereignty Over Natural Resources*, G.A. Res. 1803

"[t]he right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned."¹⁴² The Declaration on the Right to Development echoes this principle¹⁴³ by providing that "[t]he human right to development . . . includes . . . the exercise of [peoples'] inalienable right to full sovereignty over all their natural wealth and resources."¹⁴⁴ The principle is also expressed in the various documents collectively known as the New International Economic Order (NIEO).¹⁴⁵

Second, individuals are recognized as the subjects of the right to development.¹⁴⁶ Individuals' rights include the right to the benefits of development, including the full realization of basic needs, such as equality of access to basic resources, education, health services, food, housing, employment, and the fair distribution of income,¹⁴⁷ as well as the right to popular participation in the process of development.¹⁴⁸

The collective component of the right to development both provides that nation-states have the right to choose the economic systems that will best fulfill the development needs of their populations¹⁴⁹ and includes the right to benefit from advances in technology and science in the pursuit of development.¹⁵⁰ The solidarity component provides that all nation-states have the duty, both "individually and collectively, to formulate

(XVII), U.N. GAOR, 17th Sess., Supp. No. 17, at 15, U.N. Doc. A/5217 (1963), *reprinted in* 2 I.L.M. 223 [hereinafter Res. 1803].

142. *Id.* art. 1, para. 1.

143. *Development Declaration*, *supra* note 5.

144. *Id.* art. 1, para. 2.

145. *See Declaration on the Establishment of a New International Economic Order*, G.A. Res. 3201 (S-VI), para. 4(e), U.N. GAOR, 6th Special Sess., Supp. No. 1, at 3, 4, U.N. Doc. A/9559 (1974), *reprinted in* 13 I.L.M. 715, 717; *Programme of Action on the Establishment of a New International Economic Order*, G.A. Res. 3202 (S-VI), U.N. GAOR, 6th Special Sess., Supp. No. 1, at 5, U.N. Doc. A/9559 (1974), *reprinted in* 13 I.L.M. 720; *Charter of Economic Rights and Duties of States*, G.A. Res. 3281 (XXIX), art. 2, U.N. GAOR, 29th Sess., Supp. No. 31, at 50, 52, U.N. Doc. A/9631 (1975), *reprinted in* 14 I.L.M. 251, 254-55 [hereinafter *Economic Charter*].

146. *See, e.g., UNITED NATIONS, ECONOMIC AND SOCIAL COUNCIL, COMMISSION ON HUMAN RIGHTS, REPORT OF THE WORKING GROUP OF GOVERNMENTAL EXPERTS ON THE RIGHT TO DEVELOPMENT*, U.N. Doc. E/CN.4/1489, at 8 (1982) (stating "that the holders of the right to development are individuals").

147. *Development Declaration*, *supra* note 5, art. 8, para. 1.

148. *Id.* art. 8, para. 2.

149. *Economic Charter*, *supra* note 145, art. 1, 14 I.L.M. at 254.

150. *Id.* art. 13, 14 I.L.M. at 257.

international development policies"¹⁵¹ that facilitate the full realization of the right.¹⁵² Solidarity entails recognition of the sovereign equality of nation-states and requires non-discrimination in the provision of economic aid regardless of the economic system the receiving state chooses to adopt.¹⁵³ The component also imposes a duty on developed states to provide developing nations with the facilities and resources they need to achieve their development policies.¹⁵⁴

Finally, the right to development includes a human-rights component. In the early discussions about the right to development, it was recognized that full respect for basic political and civil rights is necessary for the complete fulfillment of individual human beings.¹⁵⁵ As a result, the right includes a duty to account for and respect human rights and fundamental freedoms as part of the development process.¹⁵⁶

Commentators debate the binding authority of the documents and resolutions that constitute the right to development and the NIEO. Because the right to development emerges primarily from U.N. General Assembly resolutions and not from conventional international law, the authoritativeness of General Assembly resolutions is crucial to the status of the right.¹⁵⁷ This issue was addressed in *Texaco Overseas Petroleum Co. v. Libyan Arab Republic* (the "*Caltex Case*")¹⁵⁸ in the context of a dispute over nationalization of oil concessions and the appropriate standard for just compensation.¹⁵⁹

In 1973 and 1974, Libya promulgated decrees that nationalized all the rights, interests and property of two international oil companies that operated in Libya.¹⁶⁰ The two companies claimed that the decrees

151. *Development Declaration*, *supra* note 5, art. 4, para. 1.

152. *Id.*

153. *Economic Charter*, *supra* note 145, art. 13, 14 I.L.M. at 257.

154. *Development Declaration*, *supra* note 5, art. 4, para. 2.

155. *See, e.g.*, UNITED NATIONS, ECONOMIC AND SOCIAL COUNCIL, COMMISSION ON HUMAN RIGHTS, THE INTERNATIONAL DIMENSIONS OF THE RIGHT TO DEVELOPMENT AS A HUMAN RIGHT IN RELATION WITH OTHER HUMAN RIGHTS BASED ON INTERNATIONAL CO-OPERATION, INCLUDING THE RIGHT TO PEACE, TAKING INTO ACCOUNT THE REQUIREMENTS OF THE NEW INTERNATIONAL ECONOMIC ORDER AND THE FUNDAMENTAL HUMAN NEEDS: REPORT OF THE SECRETARY-GENERAL, U.N. Doc. E/CN.4/1334, at 7-10 (1979).

156. *Development Declaration*, *supra* note 5, art. 6.

157. *See* CHEN, *supra* note 6, at 365-68.

158. *Texaco Overseas Petroleum Co. v. Libyan Arab Republic*, translated into English and reprinted in 17 I.L.M. 1 (1978) [hereinafter *Caltex Case*].

159. *See id.* at 4-5.

160. *See id.*

violated the conditions of the concessions that had been granted to them by the Libyan government.¹⁶¹ At issue was the appropriate standard for compensation under several U.N. General Assembly resolutions.¹⁶² The Libyan government based its claim on clauses in the Charter of Economic Rights and Duties of States (Economic Charter)¹⁶³ and the U.N. General Assembly Resolution on Permanent Sovereignty Over Natural Resources (Res. 3171),¹⁶⁴ which left the determination of the appropriate level of compensation due on the expropriation of property to the domestic law of the appropriating state.¹⁶⁵ The oil companies based their claim on the Resolution on Permanent Sovereignty Over Natural Resources (Res. 1803),¹⁶⁶ which emphasized the payment of "appropriate compensation" in accordance with international law.¹⁶⁷

In resolving the dispute, a sole arbitrator appointed by the President of the International Court of Justice examined the voting conditions surrounding the adoption of the resolutions and analyzed the provisions concerned.¹⁶⁸ The arbitrator found that Res. 1803 was supported by major Western powers and by many Third World countries, while provisions in Res. 3171 and in the Economic Charter were not consented to by Western powers and many developing countries.¹⁶⁹ The arbitrator, therefore, held that Res. 1803 reflected the state of customary law in the field,¹⁷⁰ that the government of Libya had breached its obligations under the concessions,¹⁷¹ and that it was bound to give the concessions full force and effect.¹⁷²

The methodology used by the arbitrator in the *Caltex Case* illustrates one of the barriers that might prevent recognition of the right to development as binding international law. The Declaration of the Right to Development, for example, would encounter difficulties similar to those

161. *See id.* at 9.

162. *See id.* at 27.

163. *Economic Charter*, *supra* note 145.

164. *Resolution on Permanent Sovereignty Over Natural Resources*, G.A. Res. 3171 (XXVIII), U.N. GAOR, 28th Sess., Supp. No. 30, at 52, U.N. Doc. A/9030 (1974) [hereinafter Res. 3171].

165. *Caltex Case*, 17 I.L.M. at 27-28.

166. Res. 1803, *supra* note 141, 2 I.L.M. at 223.

167. *Caltex Case*, 17 I.L.M. at 27.

168. *See id.* at 28.

169. *Id.* at 28-29.

170. *See id.* at 30-31.

171. *See id.* at 31.

172. *See id.* at 36.

faced by Res. 3171 and the Economic Charter in the *Caltex Case*.¹⁷³ The Declaration was adopted with 146 nations voting for, one against, and eight abstaining.¹⁷⁴ However, with the United States voting against, and other major developed countries such as West Germany, Japan, and the United Kingdom abstaining,¹⁷⁵ the *Caltex Case* precedent puts the authoritativeness of the declaration into question. Nevertheless, the support given to the Declaration by an overwhelming number of developing nations, as well as by France, Canada, Australia, and New Zealand,¹⁷⁶ indicates how widely the right to development is demanded. For developed nations to ignore such demands and expectations would present obstacles to the successful negotiation of new international agreements addressing environmental concerns.

Despite the nonbinding character of the right to development, there is implicit evidence that developed nations voluntarily support the right. This is illustrated by the number and variety of institutions devoted to development, such as the World Bank¹⁷⁷ at the international level and various development-assistance institutions, such as the U.S. International Development Cooperation Agency (IDCA), at the regional and domestic level.¹⁷⁸

In recent years, there has been a growing awareness of the connection

173. *Development Declaration*, *supra* note 5.

174. *See* BASIC DOCUMENTS, *supra* note 99, at 931.

175. *Id.*

176. *See id.*

177. The International Bank for Reconstruction and Development (World Bank) was established in 1945 to aid development of less developed countries, to promote private foreign investment and to promote the long-range balanced growth of international trade. *See* Articles of Agreement of the International Bank for Reconstruction and Development, Dec. 27, 1945, art. 1, 60 Stat. 1440, 2 U.N.T.S. 134. *See also* Muldoon, *supra* note 96, at 9-10. Other international development institutions include: the United Nations Development Program; the United Nations Organization for Industrial Development; the Food and Agricultural Organization of the United Nations; the United Nations Educational, Scientific, and Cultural Organization; and the United Nations Conference on Trade and Development. Regional institutions include: the Inter-American Development Bank; the African Development Bank; and the Asian Development Bank. *Id.*

178. *See* Exec. Order No. 12,163, 44 Fed. Reg. 56,673 (1979), *reprinted as amended* in 22 U.S.C. § 2381 (1989) (establishing the United States International Development Cooperation Agency).

between development and environmental conservation.¹⁷⁹ Despite this recognition, the fundamental tension between the right to development and environmental rights remains. This is aptly illustrated by U.N. General Assembly Resolution 44/228,¹⁸⁰ which established UNCED.¹⁸¹ Although the Resolution stresses that poverty and environmental degradation are closely related, it concedes that the measures taken for addressing environmental damage must take into account the needs and abilities of developing nations.¹⁸² Recognizing the need of developing nations for new and additional financial resources with which to address environmental problems,¹⁸³ the Resolution proposes that one objective of the conference is "[t]o examine the relationship between environmental degradation and the international economic environment, with a view to ensuring a more integrated approach to problems of environment and development in relevant international forums without introducing new forms of conditionality."¹⁸⁴ Recognition by the world community of the tension between environment and development is further illustrated by the Rio Declaration itself, which provides that "[t]he right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations,"¹⁸⁵ and that "[i]n order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it."¹⁸⁶

In summary, despite growing awareness of the relation between economic and environmental issues, it is likely that LDCs will continue stressing the right to development in counterpoint to demands for recognition of the right to a healthy environment. Concerns that the full recognition of environmental rights will divert existing aid from ongoing development projects, and distrust of developed nations that have already exploited and degraded their own natural resources to achieve their current level of development remain among the LDCs.¹⁸⁷ As long as the LDCs'

179. See generally BRUNDTLAND COMMISSION, *supra* note 18 (studying the interrelationship between the global economy and environment); THE SOUTH COMMISSION, *THE CHALLENGE TO THE SOUTH* (1990) (describing global economic and environmental issues from the perspective of the developing nations).

180. *United Nations Conference on Environment and Development*, G.A. Res. 44/228, U.N. GAOR, 44th Sess., Supp. No. 49, at 151, U.N. Doc. A/44/49 (1990).

181. *Id.* pt. 1, para. 1.

182. *Id.* pmbl.

183. *Id.*

184. *Id.* pt. 1, para. 15(h).

185. RIO DECLARATION, *supra* note 110, princ. 3, 31 I.L.M. at 877.

186. *Id.* princ. 4, 31 I.L.M. at 877.

187. Throughout the UNCED process, LDCs continually pressed for recognition of

concerns are taken into account in any future elaboration of environmental rights, however, the right to development may emerge as a complement to, rather than a hindrance to, environmental rights. Trends in international environmental law indicating that such a process is already under way are explored below.¹⁸⁸

2. State Sovereignty

Another norm conditioning the recognition of environmental rights is the general international legal principle of state sovereignty. Related to the element of permanent sovereignty over natural resources contained in the right to development, state sovereignty is the claim of sovereign nations to exclusive control over the people and resources within their territorial jurisdiction.¹⁸⁹ An articulation of the principle is found in the Charter of the United Nations.¹⁹⁰ Article 2, paragraph 7 of the Charter provides that "[n]othing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter."¹⁹¹ The only exception to the scope of article 2, paragraph 7 is the allowance for enforcement measures by the U.N. Security Council¹⁹² for breaches of international peace and security.¹⁹³

Under customary international law, however, the principle of state sovereignty is not absolute and is gradually giving way to claims on the part of the international community for jurisdiction over events that are within international concern. For example, nation-states have traditionally been held liable for acts of their nationals on the high seas,¹⁹⁴ and they

the right to development, the differentiated responsibility of developed states for the current state of environmental degradation, and their special needs in addressing environmental and development problems. See INFORMAL CONSOLIDATED DRAFT NO. 2, *supra* note 109. Each of these concerns was eventually included in the Rio Declaration. See RIO DECLARATION, *supra* note 110, princs. 1-12, 31 I.L.M. at 876-78.

188. See *infra* notes 261-79, 313-45 and accompanying text.

189. See CHEN, *supra* note 6, at 117.

190. U.N. CHARTER, *supra* note 136.

191. *Id.* art. 2, para. 7.

192. See *id.* arts. 39-51. The United Nations Security Council is one principal organ of the United Nations. It is composed of five permanent and six non-permanent members of the United Nations and is charged with maintaining international peace and security. *Id.* arts. 23-24.

193. *Id.* art. 24.

194. See Sohn, *supra* note 2, at 2.

may be responsible for transboundary injuries that are caused by individuals within their territories.¹⁹⁵ More recently, with the emergence of the global bill of international human rights as codified in the Universal Declaration of Human Rights,¹⁹⁶ the International Covenants on Human Rights,¹⁹⁷ various regional human rights regimes,¹⁹⁸ and other human-rights conventions dealing with particular subject matters¹⁹⁹ or particular categories of subjects,²⁰⁰ nation-states are increasingly responsible for protecting the rights of individuals within their territorial control.²⁰¹ The expansion of the jurisdiction of human-rights commissions and adjudicatory tribunals over individual claims without the necessity of a state-sponsor intermediary may further erode the notion of absolute state sovereignty.²⁰²

As they have with respect to customary norms of state responsibility, nation-states have demonstrated some willingness to accept more specific international obligations, particularly in the area of international environmental law.²⁰³ Despite this willingness, however, nation-states

195. See *infra* notes 291-303 and accompanying text.

196. *Universal Declaration of Human Rights*, *supra* note 25.

197. International Covenant on Economic, Social and Cultural Rights, *supra* note 24; International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171, 6 I.L.M. 368 (entered into force Mar. 23, 1976).

198. African Charter on Human and Peoples' Rights, *supra* note 112; American Convention on Human Rights, Nov. 22, 1969, O.A.S. Treaty Ser. No. 36, O.A.S. Off. Rec. OEA/Ser.L/V/II.23 doc. 21 rev. 6 (1979), *reprinted in* 9 I.L.M. 673 (entered into force July 18, 1978); Convention for the Protection of Human Rights and Fundamental Freedoms, *supra* note 117.

199. See, e.g., International Convention on the Elimination of All Forms of Racial Discrimination, Mar. 7, 1966, 660 U.N.T.S. 195, 5 I.L.M. 350 (entered into force Jan. 4, 1969).

200. See, e.g., Convention on the Elimination of All Forms of Discrimination Against Women, Dec. 18, 1979, 1249 U.N.T.S. 13, 19 I.L.M. 33 (entered into force Sept. 3, 1981).

201. See CHEN, *supra* note 6, at 205-19.

202. See *id.* at 219-23.

203. See, e.g., Montreal Protocol, *supra* note 44; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Oct. 31, 1988, 28 I.L.M. 212 (entered into force Feb. 14, 1991) [hereinafter *Sofia Protocol*]; Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Fluxes, Nov. 18, 1991, 31 I.L.M. 573; see also Palmer, *supra* note 89, at 270-82 (analyzing the erosion of the requirement of unanimous consent exemplified in the adoption of amendments to the Montreal Protocol).

remain reluctant to establish effective implementation machinery for such obligations. Implementation of international environmental obligations is generally left to domestic legislatures.²⁰⁴ Furthermore, with rare exceptions, nation-states still refuse to submit to compulsory third-party adjudication of international disputes in which they are involved.²⁰⁵ So while absolute sovereignty erodes, nation-states continue to assert state sovereignty and national security interests in resisting the primacy of international obligations over domestic policies.²⁰⁶

IV. THE SCOPE AND CONTENT OF THE EMERGING HUMAN RIGHT TO A HEALTHY AND DECENT ENVIRONMENT

There is no widely accepted international convention recognizing the right to a healthy environment.²⁰⁷ This has prompted some to call for a new declaration that expressly recognizes the rights and responsibilities of nation-states to protect and preserve environmental rights.²⁰⁸ Others, by contrast, contend that environmental rights are already emerging human rights.²⁰⁹ The remainder of this note analyzes current international environmental law and determines the scope and content of the right in its current state. In addition, the analysis explores the extent to which the complementary principles of the right to development and state sovereignty affect the development of that right. Finally, the note draws some conclusions on the future of the right to a healthy environment.

A. Trends in the Human Right to a Healthy Environment

One suggested criterion of a new human right is that it give rise to practicable and identifiable rights and obligations.²¹⁰ Several such rights and obligations affecting environmental issues are already detectable under international law. These include general principles such as the principle

204. See, e.g., Vienna Ozone Convention, *supra* note 44, art. 2, para. 2(b), T.I.A.S. No. 11097, at 6, 26 I.L.M. at 1530 (requiring states to adopt appropriate legislative or administrative measures to comply with the treaty provisions).

205. See CHEN, *supra* note 6, at 104-13.

206. See *id.* at 107.

207. See BRUNDTLAND PRINCIPLES, *supra* note 64, at 40.

208. See, e.g., BRUNDTLAND COMMISSION, *supra* note 18, at 332 (calling for the development of a new international charter of environmental rights).

209. See, e.g., Marks, *supra* note 1, at 443-44 (arguing that environmental rights are emerging as one of several third-generation "solidarity" rights).

210. See, e.g., *Setting International Standards in the Field of Human Rights*, G.A. Res. 41/120, U.N. GAOR, 41st Sess., Supp. No. 53, at 178, 179, U.N. Doc. A/41/53 (1987).

of intergenerational equity,²¹¹ the precautionary principle,²¹² and the principle of sustainable development.²¹³ In addition, it includes several obligations respecting inter-State relations, including the duty of equitable use of shared resources,²¹⁴ the duty to prevent transboundary pollution,²¹⁵ the responsibility to notify of transboundary harm,²¹⁶ the obligation to incorporate environmental concerns into development policies,²¹⁷ and the ban on hostile environmental modification.²¹⁸ The extent to which these principles constitute binding principles of international law, however, varies considerably.

1. General Principles

Intergenerational equity is a general obligation guiding international decision makers as they attempt to confront environmental concerns. This principle provides that each generation has an obligation to conserve and protect the natural resources and the environment for the use and benefit of present and future generations.²¹⁹ The principle contains three elements: conservation of options, conservation of quality, and conservation of access.²²⁰ It imposes five obligations on the present generation: 1) a "duty to conserve resources,"²²¹ 2) a "duty to insure

211. See *infra* notes 219-36 and accompanying text.

212. See *infra* notes 237-60 and accompanying text.

213. See *infra* notes 261-79 and accompanying text.

214. See *infra* notes 280-90 and accompanying text.

215. See *infra* notes 291-303 and accompanying text.

216. See *infra* notes 304-12 and accompanying text.

217. See *infra* notes 313-45 and accompanying text.

218. See *infra* notes 346-58 and accompanying text.

219. For a discussion of the principle of intergenerational equity, see BROWN WEISS, *supra* note 119.

220. See Edith Brown Weiss, *Our Rights and Obligations to Future Generations for the Environment*, 84 AM. J. INT'L L. 198, 201-02 (1990). The principle of conservation of options provides that each generation is "required to conserve the diversity of the natural and cultural resource base, so that it does not unduly restrict the options available to future generations in solving their problems and satisfying their own values, and should also be entitled to diversity comparable to that enjoyed by the previous generations." Conservation of quality provides that each generation must maintain the quality of the environment and pass it "on in no worse condition than that in which it was received." Conservation of access provides that each generation must provide equitable rights of access to natural resources and conserve this access for future generations. *Id.*

221. BROWN WEISS, *supra* note 119, at 50.

equitable use" of resources,²²² 3) a "duty to avoid adverse impacts" upon resources,²²³ 4) a "duty to prevent disasters, minimize damage and provide emergency assistance,"²²⁴ and 5) a "duty to compensate for environmental harm[s]."²²⁵ The obligation to conserve natural resources runs to present as well as future generations, implying that the needs of current generations must also be addressed.²²⁶

The principle of intergenerational equity has received considerable attention under international law. A clear formulation of the principle is found in principle 1 of the Stockholm Declaration, which provides that "[m]an . . . bears a solemn responsibility to protect and improve the environment for present and future generations."²²⁷ In recognition of the interplay between development policy and preservation of the environment for future generations, principle 3 of the Rio Declaration provides: "The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations."²²⁸ Other "soft law" expressions of the principle are found in the World Charter for Nature,²²⁹ the Charter of Economic Rights and Duties of States,²³⁰ and the Resolution on the Historic Responsibility of States for the Preservation of Nature for Present and Future Generations.²³¹ Conventional "hard law" expressions of the principle are found in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),²³² which recognizes that "wild fauna and flora . . . must be protected for this and the generations to come";²³³ in the preamble to the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification

222. *Id.* at 55.

223. *Id.* at 59.

224. *Id.* at 70.

225. *Id.* at 79.

226. *See* BRUNDTLAND PRINCIPLES, *supra* note 64, at 44.

227. STOCKHOLM DECLARATION, *supra* note 95, princ. 1, 11 I.L.M. at 1417-18.

228. RIO DECLARATION, *supra* note 110, princ. 3, 31 I.L.M. at 877.

229. *World Charter for Nature*, G.A. Res. 37/7, pmb., U.N. GAOR, 37th Sess., Supp. No. 51, at 17, U.N. Doc. A/37/51 (1983).

230. *Economic Charter*, *supra* note 145, art. 30, 14 I.L.M. at 260-61.

231. *Historical Responsibility of States for the Preservation of Nature for Present and Future Generations*, G.A. Res. 36/7, U.N. GAOR, 36th Sess., Supp. No. 51, at 14, U.N. Doc. A/36/51 (1982).

232. *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 (entered into force July 1, 1975).

233. *Id.* pmb., 27 U.S.T. at 1090, 993 U.N.T.S. at 244.

Techniques;²³⁴ and in several regional and bilateral conventions.²³⁵ The extent to which the principle has been invoked and reaffirmed in subsequent international agreements, indicates that the principle has crystallized into a general principle of international law.²³⁶

Assuming a general obligation to conserve resources for present and future generations, what principles guide decision-makers in the international community in determining when to act and how to balance environmental rights with other concerns? In this area, it is unclear whether any generally accepted principles guide such decisions. One developing principle that has received considerable attention recently, however, is the precautionary principle,²³⁷ which affirms that substances or activities that may be harmful to the environment should be regulated even if conclusive scientific evidence of their harmfulness is not yet available.²³⁸ Due to the inconclusive nature of environmental science, however, the extent to which the acceptance of the precautionary principle effectively shifts the burden of proof to potential polluters is still debated.²³⁹

The precautionary principle initially developed through various regional conferences and "soft law" declarations.²⁴⁰ The first expression of the principle appears in the 1987 London Declaration issued by the

234. Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, Dec. 10, 1976, 31 U.S.T. 333, 1108 U.N.T.S. 151 (entered into force Oct. 5, 1978) [hereinafter ENMOD].

235. See, e.g., Agreement on Air Quality, Mar. 13, 1991, U.S.-Can., pmbl., 30 I.L.M. 678; Agreement to Cooperate in the Solution of Environmental Problems in the Border Area, Aug. 14, 1983, U.S.-Mex., pmbl., 22 I.L.M. 1025 (entered into force Feb. 16, 1984); Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Nov. 25, 1986, pmbl., 26 I.L.M. 38; Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Mar. 24, 1983, pmbl., 22 I.L.M. 227 (entered into force Oct. 11, 1986); Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, Mar. 23, 1981, pmbl., 20 I.L.M. 746 (entered into force Aug. 5, 1984).

236. See BROWNIE, *supra* note 81, at 5, 11-15 (discussing how treaties create general principles).

237. See, e.g., Ministerial Declaration Calling for Reduction of Pollution of the Second International Conference on the Protection of the North Sea, Nov. 25, 1987, para. 7, 27 I.L.M. 835, 838.

238. *Id.*

239. See David Freestone, *The Precautionary Principle*, in INTERNATIONAL LAW AND GLOBAL CLIMATE CHANGE 21, 32 (Robin Churchill & David Freestone eds., 1991); see also *infra* notes 257-60 and accompanying text.

240. Freestone, *supra* note 239, at 23-24.

North Sea states at the Second International North Sea Conference.²⁴¹ The Declaration states that "in order to protect the North Sea from possibly damaging effects of the most dangerous substances, a precautionary approach is necessary which may require action to control inputs of such substances even before a causal link has been established by absolutely clear scientific evidence."²⁴² A more recent reference to the precautionary principle is found in the Bergen Declaration,²⁴³ which provides:

In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.²⁴⁴

Support exists for the view that the formulation of the precautionary principle in the Bergen Declaration constitutes binding legal authority. The principle was adopted despite initial opposition by the United States.²⁴⁵ Believing more research was necessary to verify global warming, the U.S. administration reluctantly allowed the language referring to the precautionary principle to remain in the document.²⁴⁶

The precautionary principle was reaffirmed at UNCED, providing further evidence of its status as binding law.²⁴⁷ As formulated in various documents adopted at the Rio Conference, the principle would allow for consideration of the economic cost-effectiveness of precautionary measures and the impact on the financial ability of States that adopt such measures. For example, principle 15 of the Rio Declaration adopts the operative language of the Bergen Declaration almost verbatim, providing that "lack of full scientific certainty shall not be used as a reason for postponing

241. *Id.* at 23.

242. *Id.* (quoting the 1987 London Declaration issued after the Second International North Sea Conference in November, 1987).

243. BERGEN MINISTERIAL DECLARATION ON SUSTAINABLE DEVELOPMENT IN THE ECE REGION, May 16, 1990, U.N. Doc. A/CONF.151/PC/10, Annex I (1990).

244. *Id.* para. 7.

245. *See No Timetable for CO₂ Cuts Agreed To, But 'Precautionary Principle' Upheld*, 13 Int'l Env'tl. Rep. (BNA) 228 (June 13, 1990).

246. *Id.*

247. *See, e.g.,* RIO DECLARATION, *supra* note 110, princ. 15, 31 I.L.M. at 879.

cost-effective measures to prevent environmental degradation.”²⁴⁸ Moreover, the “precautionary approach” is to be “applied by States according to their capabilities.”²⁴⁹ But despite the allowance for economic considerations in its application, the endorsement of the precautionary principle at Rio shows widespread support for its importance in international environmental policy formation.²⁵⁰

In practice, the degree of risk of serious environmental harm and the degree of scientific certainty regarding such risk, which must exist before States are obliged to take precautionary measures, are still relatively high, despite the principle’s acceptance by the world community. An example concerns events surrounding the Vienna Ozone Convention.²⁵¹ As articulated in the Convention, the principle imposes an affirmative duty on the signatories to “take appropriate measures . . . to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.”²⁵² A recent amendment to the preamble of the Montreal Protocol²⁵³ provides that the parties are determined “to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it.”²⁵⁴ Throughout the negotiations leading to the completion of the Vienna Convention and its protocols, the United States took the lead in urging other countries to agree to precautionary bans on various ozone-depleting substances, despite the lack of airtight scientific proof of the dangers of those substances.²⁵⁵ But despite the provisions in the documents and urging by the United States, it wasn’t until evidence supporting the effect of chlorofluorocarbons and other ozone-depleting chemicals on the ozone layer became overwhelming that the parties agreed to a ban on their production.²⁵⁶

Events surrounding attempts to take action to reduce the threat of global climatic change also suggest that, in effect, States expect a high degree of proof to be satisfied before they comply with the precautionary principle. Although many commentators suggest that evidence exists to

248. *Id.* (emphasis added).

249. *Id.* (emphasis added).

250. See Freestone, *supra* note 239, at 39.

251. Vienna Ozone Convention, *supra* note 44.

252. *Id.* art. 2, para 1, T.I.A.S. No. 11097, at 5, 26 I.L.M. at 1529.

253. London Revisions, *supra* note 44.

254. *Id.* art. 1(A), para. 1, 30 I.L.M. at 541.

255. See BENEDICK, *supra* note 21 (describing the negotiations that led to the development and completion of the Vienna Ozone Treaty, the Montreal Protocol, and the London Revisions).

256. See *id.*

support a *prima facie* case for a substantial risk of global climatic change should the emission of "greenhouse" gases continue unabated,²⁵⁷ to date, States have resisted the implications of this evidence. For example, the Framework Convention on Climate Change,²⁵⁸ opened for signature at the UNCED Conference, affirms that States "should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects."²⁵⁹ However, the convention fails to establish specific goals and timetables for the reduction of "greenhouse" gases.²⁶⁰ Such examples suggest that, despite formal acceptance of the precautionary principle, the onus remains on those who would challenge activities that pose a substantial risk of serious environmental harm.

The need to develop a general standard for balancing the duty of environmental conservation with each nation's inherent right to development has led to the articulation of the principle of sustainable development.²⁶¹ The concept of sustainable development recognizes that economic development goals in both LDCs and developed nations cannot be achieved without protecting natural resources from degradation beyond sustainable levels.²⁶² In its recommendations for new legal principles, the World Commission on Environment and Development²⁶³ offered a general definition of sustainable development:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.²⁶⁴

257. See, e.g., Freestone, *supra* note 239, at 38.

258. Framework Convention on Climate Change, May 9, 1992, 31 I.L.M. 851.

259. *Id.* art. 3, para. 3, 31 I.L.M. at 854.

260. See *id.* art. 4, para. 2 (a), (b), 31 I.L.M. at 856-57. When read together, these two articles may be read to "imply a tacit goal of returning to 1990 levels of greenhouse gas emissions by the end of the decade." Brown Weiss, *supra* note 106, at 816.

261. See BRUNDTLAND COMMISSION, *supra* note 18, at 43-46.

262. See *id.* at 43.

263. See *supra* note 18.

264. *Id.*

The concept of sustainable development is articulated in various U.N. resolutions and the declarations of international fora. A decade after the Stockholm Declaration,²⁶⁵ the concept of sustainable development was enunciated in the Nairobi Declaration²⁶⁶ of the United Nations Environment Programme (UNEP).²⁶⁷ Recognizing that a "comprehensive and regionally integrated approach that emphasizes [the interrelationship between the environment and development] can lead to environmentally sound and sustainable socio-economic development,"²⁶⁸ the Nairobi Declaration endorses economic processes that ensure environmental sustainability.²⁶⁹ The United Nations adopted the concept in the World Charter for Nature,²⁷⁰ which provides that "[e]cosystems and organisms, as well as the land, marine and atmospheric resources that are utilized by man, shall be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist."²⁷¹ The principle found further expression in the Rio Declaration, which proclaims that humans "are at the centre of concerns for sustainable development"²⁷² and states the conditions and requirements that must be fulfilled in order to achieve such development.²⁷³ The Rio Declaration does not, however, provide its own definition of the principle.

The debate over article 11 of the World Charter for Nature simultaneously illustrates the tension between the right to development and environmental rights and indicates the extent to which the principle of sustainable development has become binding on the international community. In support of the principle, several LDCs recognized the limited capacity of the environment to support development.²⁷⁴ For

265. See STOCKHOLM DECLARATION, *supra* note 95.

266. *Nairobi Declaration*, U.N. GAOR, 37th Sess., Supp. No. 25, at 49, U.N. Doc. A/37/25 (1982).

267. See Muldoon, *supra* note 96, at 21.

268. *Nairobi Declaration*, *supra* note 266, para. 3.

269. *Id.* paras. 4-9.

270. *World Charter for Nature*, *supra* note 229.

271. *Id.* art. 4. A further elaboration of the concept of sustainable development is found in *Environmental Perspectives to the Year 2000 and Beyond*, a document adopted by the U.N. General Assembly containing goals and recommending actions intended to serve as a guide to governments in helping to achieve environmentally sound development. See *Environmental Perspectives to the Year 2000 and Beyond*, G.A. Res. 42/186, U.N. GAOR, 42d Sess., Supp. No. 49, at 141, U.N. Doc. A/42/49 (1988).

272. RIO DECLARATION, *supra* note 110, princ. 1, 31 I.L.M. at 876.

273. See *id.* princs. 4-5, 7-9, 20-22, 24, 27, 31 I.L.M. at 877, 879-80.

274. See Harold W. Wood, Jr., *The United Nations World Charter for Nature: The*

example, the Ivory Coast "stressed the need to tie conservation to development and to protect the poorest members of a nation from the misuses of natural resources."²⁷⁵ Several other LDCs and particularly the Amazon countries, however, were concerned that environmental protection would detract from economic development goals.²⁷⁶

By the time UNCED convened, resistance to the idea of sustainable development had declined. Sustainable development served as the focus of the Conference, and *Agenda 21*, the 800-page action plan adopted by the Conference, was designed as a blueprint nations could follow as they seek to establish environmentally sustainable economies.²⁷⁷ Despite the growing body of "soft law" recognizing sustainable development, it is too early to say that the principle has evolved from a policy goal into a legally binding principle. The rate at which natural resources around the world are currently being depleted demonstrates that there is insufficient uniformity of behavior to support sustainable development as a binding legal principle,²⁷⁸ at least as far as controlling the actions of states within their own borders. *Agenda 21* contains many progressive elements that go beyond actions currently followed by many States.²⁷⁹ At this point, all that can be said is that evidence of the requisite uniformity of behavior and *opinio juris* may yet emerge as States implement *Agenda 21* and make further affirmations of the principle in future legal instruments.

2. Specific Obligations Guiding Interstate Behavior

While general principles of international law guiding state behavior with respect to environmental values are still evolving, there appear to be several specific obligations that have emerged as binding law regarding those values and interstate relations. The principle of equitable utilization, or the equitable apportionment of transboundary natural resources such as international watercourses, is one such obligation that has become accepted as a customary norm of interstate conduct.²⁸⁰ Article 4 of the Helsinki Rules on the Uses of the Waters of International Rivers (Helsinki

Developing Nations' Initiative to Establish Protections for the Environment, 12 *ECOLOGY L.Q.* 977, 980 (1985).

275. *Id.* at 987.

276. *See id.* at 984-85.

277. *See* Brown Weiss, *supra* note 106, at 814-15.

278. *See* Brown, *supra* note 22, at 6-8 (summarizing the extent of environmental degradation in the 1980s due to human activities).

279. *See* Brown Weiss, *supra* note 106, at 815.

280. *See* BRUNDTLAND PRINCIPLES, *supra* note 64, at 73.

Rules)²⁸¹ contains a formulation of this principle with respect to the equitable use of waters of international drainage basins.²⁸² The Helsinki Rules state that "[e]ach basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin."²⁸³ Whether a use is equitable is determined in light of all relevant circumstances in each particular case, including geographic, hydrological, climatic circumstances, and the economic and social needs of the States concerned.²⁸⁴ Rather than outlining specific rules to determine equitable use, this principle involves a process of decision-making that takes all relevant factors into consideration.²⁸⁵

The principle of equitable utilization has been applied in numerous international agreements, with implementation usually requiring negotiations among the nation-states involved concerning the equitable delimitation of their respective rights and obligations.²⁸⁶ In fact, in the *Lake Lanoux Case*,²⁸⁷ which involved a dispute between France and Spain over the diversion of an international river, an international arbitration board indicated international customary law may oblige nation-states to conduct such negotiations.²⁸⁸

The principle of equitable utilization finds further support as a generally recognized principle of domestic law applied by several federally structured nation-states with regard to sharing of natural resources of interterritorial watercourses.²⁸⁹ Indeed, one commentator has suggested that decisions of the U.S. Supreme Court have been particularly influential in the development of the international legal principle.²⁹⁰

Another specific obligation that may be considered to have completed its transition into a customary international legal norm is the duty to prevent transboundary pollution that is likely to cause significant harm to the environment of other nation-states or to areas beyond the limits of national jurisdiction.²⁹¹ This principle developed through two

281. INT'L L. ASS'N, REPORT OF THE FIFTY-SECOND CONFERENCE 484 (1966).

282. See BRUNDTLAND PRINCIPLES, *supra* note 64, at 75.

283. INT'L L. ASS'N, *supra* note 281, at 486.

284. See *id.* at 488.

285. See *id.*

286. See BRUNDTLAND PRINCIPLES, *supra* note 64, at 73.

287. See *Lake Lanoux Case* (Fr. v. Spain), 1957 INT'L L. REP. 101.

288. See *id.* at 129-30.

289. See, e.g., *Nebraska v. Wyoming*, 325 U.S. 589 (1945); *Wyoming v. Colorado*, 259 U.S. 419 (1922).

290. See J.G. LAMMERS, POLLUTION OF INTERNATIONAL WATERCOURSES 397 (1984).

291. See KISS & SHELTON, *supra* note 1, at 122.

international disputes: the *Trail Smelter Case*²⁹² and the *Corfu Channel Case*.²⁹³

The *Trail Smelter Case* was an arbitration involving transboundary air pollution.²⁹⁴ A smelter in Canada, the Trail Smelter, emitted sulphur dioxide fumes that drifted across the U.S.-Canada border and caused damage to farmlands in the State of Washington. After finding injury, an international arbitration tribunal considered whether the smelter should be enjoined from continuing the harmful emissions.²⁹⁵ After considering international and U.S. domestic law, the tribunal ruled that "under the principles of international law . . . no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."²⁹⁶ The tribunal went on to hold Canada liable for the conduct of the Trail Smelter and to impose control measures.²⁹⁷

In the *Corfu Channel Case*,²⁹⁸ British ships were damaged by the explosion of German mines as the ships sailed through the Corfu Channel. Finding that Albania was aware of the mines but had failed to warn the British ships of the danger, the ICJ held that Albania was liable for the damage based on "general and well-recognized principles, namely[,] . . . every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States."²⁹⁹

This principle of state responsibility for transboundary environmental harm also arises from various subsequent international agreements. Principle 21 of the Stockholm Declaration, for example, provides that "States have . . . the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."³⁰⁰ By including the phrase "areas beyond the limits of national jurisdiction," this articulation expands state responsibility to include environmental damage not only to other nation-states, but also to the global commons, such as the

292. *Trail Smelter Case* (U.S. v. Can.), 3 R.I.A.A. 1905 (1949).

293. *Corfu Channel Case* (U.K. v. Alb.), 1949 I.C.J. 4 (Merits).

294. *Trail Smelter Case*, 3 R.I.A.A. at 1907.

295. *See id.* at 1934.

296. *See id.* at 1965.

297. *See id.* at 1974.

298. *Corfu Channel Case*, 1949 I.C.J. 4 (Merits).

299. *Id.* at 22.

300. STOCKHOLM DECLARATION, *supra* note 95, princ. 21, 11 I.L.M. at 1420.

high seas or Antarctica.³⁰¹ As mentioned above,³⁰² the Stockholm Declaration was originally considered to be an expression of the goals and principles toward which nation-states should aspire, and is therefore not binding conventional law. Principle 21, however, is generally considered to be a crystallized customary legal norm.³⁰³

Flowing from the duty to prevent transboundary harm is the duty of prompt notification of potentially affected states of accidental releases of pollution that are likely to have consequences beyond the releasing nation-state's territory.³⁰⁴ This principle has considerable support under international customary law. In the *Corfu Channel Case*, the ICJ held that Albania had a duty to notify the British warships of the existence of mines in international waters within its control and to warn them "of the imminent danger to which the minefield exposed them."³⁰⁵ The court held that the obligation was based "on certain general and well-recognized principles, namely[,] elementary considerations of humanity, even more exacting in peace than in war [and] the principle of the freedom of maritime communications."³⁰⁶ The tribunal in the *Trail Smelter Case* recognized a similar obligation.³⁰⁷

Several international agreements have codified the duty of notification. For example, the Convention on Early Notification of a Nuclear Accident (Notification Convention),³⁰⁸ which was negotiated in the aftermath of the Chernobyl accident, is intended to apply to an accidental release of radioactive materials which "occurs or is likely to occur and which has resulted or may result in an international transboundary release that could be of radiological safety significance for another State."³⁰⁹ It requires

301. See Sohn, *supra* note 98, at 493.

302. See, e.g., *id.* at 426-27 (discussing the position taken by the Preparatory Committee in drafting the Stockholm Declaration).

303. See, e.g., RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 601(1)(b) (1987) (providing that a state is obliged to "ensure that activities within its jurisdiction or control . . . are conducted so as not to cause significant injury to the environment of another state or of areas beyond the limits of national jurisdiction").

304. See KISS & SHELTON, *supra* note 1, at 132.

305. *Corfu Channel Case*, 1949 I.C.J. at 22.

306. *Id.*

307. See *supra* notes 294-97 and accompanying text. The ICJ recently reaffirmed this principle of humanity. See *Case Concerning Military and Paramilitary Activities In and Against Nicaragua (Nicar. v. U.S.)*, 1986 I.C.J. Rep. 14, 112 (Merits).

308. Convention on Early Notification of a Nuclear Accident, Sept. 26, 1986, 25 I.L.M. 1370 (entered into force Oct. 27, 1986).

309. *Id.* art. 1, 25 I.L.M. at 1370.

State parties to notify promptly the International Atomic Energy Agency (IAEA) and those states that may be affected by the release, and to provide information relevant to minimizing its radiological consequences.³¹⁰ There is evidence that this principle has crystallized into customary law. During the Notification Convention's negotiations, for example, several States "maintained that the obligation to provide emergency information [on accidental releases] was a rule of international law,"³¹¹ and thus, the Convention's notification requirements would apply whether it was completed or not.³¹²

An obligation to incorporate environmental concerns into the planning and implementation of development projects has recently undergone considerable refinement.³¹³ This obligation reflects recognition of the need to balance environmental goals with the demands of economic development, and by implication the need to balance the right to development with environmental rights.³¹⁴ The principle requires nation-states to take steps to develop environmental strategies that do not impair development, and to take account of and provide for the needs of developing nations in meeting their development goals.³¹⁵ A "soft law" reference to the principle is found in principle 11 of the Stockholm Declaration, which provides that "[t]he environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all."³¹⁶ Principle 12 goes on to state:

Resources should be made available to preserve and improve the environment, taking into account the circumstances . . . of developing countries and any costs which may emanate from their incorporating environmental safeguards into their development planning and the need for making available to them . . . additional international technical and financial assistance for this purpose.³¹⁷

310. *Id.* art. 2, 25 I.L.M. at 1371. The Basel Convention also contains similar provisions for accidental releases of toxic waste during transportation. *See* Basel Convention, *supra* note 44, art. 13, 28 I.L.M. at 669-70.

311. *See* CHERNOBYL: LAW AND COMMUNICATION 38 (Philippe Sands ed., 1988).

312. *See id.* at 38-39.

313. *See* BRUNDTLAND PRINCIPLES, *supra* note 64, at 65.

314. *See id.* at 66.

315. *See id.* at 65.

316. STOCKHOLM DECLARATION, *supra* note 95, princ. 11, 11 I.L.M. at 1419.

317. *Id.* princ. 12, 11 I.L.M. at 1419.

Recognition of the principle of the incorporation of environmental concerns into economic development policies has given rise to a variety of duties and obligations under international conventional law. The obligation to transfer environmentally sound technologies, for example, is articulated in several conventions,³¹⁸ as is the obligation to provide financial assistance to defray the cost of implementing environmental safeguards.³¹⁹ These conventional law principles, however, have not crystallized into customary norms governing interstate behavior, as is illustrated by the Vienna Ozone Convention³²⁰ and its subsequent protocols.³²¹ The provisions on technology transfer and financial assistance in the Montreal Protocol were included initially as an inducement to attract LDCs as parties to the conventions, not from a sense of legal obligation.³²² Indeed, the United States, aware of the precedential effect that the creation of a financial assistance mechanism in the amendments to the Montreal Protocol would have on international law, negotiated for language that would ensure that the Protocol's mechanism could not serve as a precedent for future agreements.³²³

Also related to the incorporation of environmental strategies into economic development projects are the obligations to conduct environmental assessment studies before taking action that could adversely affect the environment and to make those studies available to the nation-states that might be affected, allowing them to become part of the planning process.³²⁴ Several international agreements among the more developed nations of Europe and North America show an increasing acceptance of this policy.³²⁵ For example, the U.N. Economic Commission for Europe³²⁶ completed negotiations in 1991 on the Convention on

318. See, e.g., Basel Convention, *supra* note 44, art. 14, para. 1, 28 I.L.M. at 670; Montreal Protocol, *supra* note 44, art. 5, para. 2 and art. 10, 26 I.L.M. at 1556-57.

319. See, e.g., Montreal Protocol, *supra* note 44, art. 5, para. 3 and art. 10, 26 I.L.M. at 1556-57.

320. See Vienna Ozone Convention, *supra* note 44.

321. See Montreal Protocol, *supra* note 44; London Revisions, *supra* note 44.

322. The concern of developed countries with free-market economies was that "transfer of technology" could not be guaranteed because "intellectual property rights" are privately held. See BENEDICK, *supra* note 21, at 189.

323. See *id.* at 184.

324. See KISS & SHELTON, *supra* note 1, at 147.

325. See, e.g., Espoo Convention on Environmental Impact Assessment in a Trans-boundary Context, *opened for signature* Feb. 25, 1991, 30 I.L.M. 800 [hereinafter Espoo Convention]; EEC Council Directive 85/337 of 27 July 1985 on the Assessment of the Effects of Certain Public and Private Projects on the Environment, 1985 O.J. (L 175) 40.

326. The U.N. Economic Commission for Europe was created by the United

Environmental Impact Assessment in a Transboundary Context (Espoo Convention).³²⁷ Once the Espoo Convention enters into force, nation-states will be required to assess the transboundary environmental impacts of certain kinds of developments and to make such assessment available to potentially affected neighboring states. The Espoo Convention will provide protection similar to the provisions in the National Environmental Policy Act³²⁸ in the United States, which require environmental impact statements for federal actions that significantly affect the environment.³²⁹

State practice suggests that prior environmental impact assessment (EIA) is emerging as a customary norm of international law.³³⁰ In addition to the examples of agreements at the international level, many nations incorporate EIA procedures as a matter of domestic law.³³¹ Widespread recognition of the importance of such procedures as a tool of development decision-making is illustrated by the Rio Declaration, which provides that "[e]nvironmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority."³³² Moreover, the Declaration goes on to direct that "[s]tates shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith."³³³

In the past, many LDCs have balked at the necessity of preparing environmental impact assessments. For example, concern over the EIA requirement was expressed by Amazon nations during the debate over the adoption of the World Charter for Nature.³³⁴ Brazil, speaking on behalf of the Amazon countries, complained that the requirement would subject

Nations Economic and Social Council in 1947. The U.N. Economic Commission is "the oldest and geographically most complete" European postwar reconstruction organization. See KISS & SHELTON, *supra* note 1, at 74.

327. Espoo Convention, *supra* note 325.

328. See 42 U.S.C. §§ 4321-4370c (1988 & Supp. 1991).

329. *Id.* § 4332(2)(C).

330. Nicholas A. Robinson, *International Trends in Environmental Impact Assessment*, 19 B.C. ENVTL. AFF. L. REV. 591, 602 (1992).

331. See *id.* at 597.

332. RIO DECLARATION, *supra* note 110, princ. 17, 31 I.L.M. at 879.

333. *Id.* princ. 19, 31 I.L.M. at 879.

334. See *Consideration and Adoption of the Revised Draft World Charter for Nature: Report of the Secretary-General*, U.N. GAOR, 37th Sess., 48th plen. mtg. at 833, 843, U.N. Doc. A/37/PV.48 (1982).

development activities to "costly and often unnecessary environmental impact studies,"³³⁵ a result that these nations found unacceptable. Such resistance by LDCs indicates that the requirement has yet to develop into a customary international norm. With the inclusion of the principles of EIA in the Rio Declaration, however, and the growing acceptability of EIA procedures by LDCs,³³⁶ this resistance may be waning, and a customary norm may soon be established.

Notwithstanding the principle's status as a not-yet binding norm, a duty to integrate environmental management into development policies has already emerged from international "soft law" guidelines governing the activities of international development agencies.³³⁷ One source of this duty as it applies to international development agencies is the Nairobi Declaration,³³⁸ which, as noted above, articulates new perceptions of the need for a "comprehensive and regionally integrated approach" emphasizing the interrelationship between environmental management and assessment, and growth and development.³³⁹ In addition, in 1980, the World Bank, five regional development banks, the Commission of the European Community, the Organization of American States (OAS),³⁴⁰ UNEP, and UNDP concluded the Declaration on Environmental Policies and Procedures Relating to Economic Development,³⁴¹ in which the parties reaffirmed the principles of the Stockholm Declaration and pledged to "[i]nstitute procedures for systematic examination of all development activities" to ensure compliance with the Declaration.³⁴² A more recent example of "soft law" guidelines is the Draft Code of Conduct on Transnational Corporations³⁴³ adopted by the U.N. Economic and Social

335. *Id.*

336. For a summary of environmental impact assessment statutes adopted by a variety of nations, see Robinson, *supra* note 330, at 611-16.

337. See, e.g., Muldoon, *supra* note 96, at 29-38 (discussing this proposition generally and providing specific examples of agencies that integrate environmental considerations into their development policies).

338. *Nairobi Declaration*, *supra* note 266.

339. *Id.* para. 3.

340. See Charter of the Organization of American States, Apr. 30, 1948, 2 U.S.T. 2394, 119 U.N.T.S. 3 (entered into force Dec. 13, 1951). The OAS was established by 31 nations of North and South America to strengthen peace and security of the continents, to provide for common action in the event of aggression, and to seek solutions to political, juridical, and economic problems within the region. See *id.* art. 4, 2 U.S.T. at 2417, 119 U.N.T.S. at 52.

341. Declaration of Environmental Policies and Procedures Relating to Economic Development, Feb. 1, 1980, 19 I.L.M. 524.

342. *Id.* arts. 1, 2, para. 1.

343. UNITED NATIONS, ECONOMIC AND SOCIAL COUNCIL, DRAFT CODE OF

Council,³⁴⁴ which includes several guidelines for subjecting multinational corporations to environmental protection standards. One commentator has suggested that the numerous "soft law" principles concerning international development agencies have emerged as generally applicable international law.³⁴⁵

Finally, a duty to protect the environment from hostile environment modifications and from the devastating effects of modern warfare may also be emerging as a binding customary principle. Principle 26 of the Stockholm Declaration provides that "[m]an and his environment must be spared the effects of nuclear weapons and all other means of mass destruction."³⁴⁶ The World Charter for Nature³⁴⁷ echoes this principle: "Military activities damaging to nature shall be avoided."³⁴⁸ An international agreement that reflects this concern is the 1977 Protocol I to the Geneva Conventions of 1949,³⁴⁹ which prohibits the use of "methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment."³⁵⁰

Another important convention in this area is the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD).³⁵¹ Article 1 of ENMOD declares that its signatories "undertake[] not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or

CONDUCT ON TRANSNATIONAL CORPORATIONS, arts. 43-45, U.N. Doc. E/1988/39/Add.1 (1988).

344. See U.N. CHARTER arts. 61-72. The Economic and Social Council is charged with studying and making recommendations to the U.N. General Assembly with respect to international economic, social, cultural, educational, health, and related issues. *Id.* art. 62.

345. See Muldoon, *supra* note 96, at 25-26 (suggesting that the duty to integrate environmental management into development policies, the duty to improve environmental capabilities, and the duty to assess environmental impacts of development projects have emerged as accepted principles of international law applicable to international development agencies).

346. STOCKHOLM DECLARATION, *supra* note 95, art. 26, 11 I.L.M. at 1421.

347. *World Charter for Nature*, *supra* note 229.

348. *Id.* para. 20.

349. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, June 8, 1977, 16 I.L.M. 1391 (entered into force Dec. 7, 1978).

350. *Id.* art. 35, para. 3, 16 I.L.M. at 1409.

351. See ENMOD, *supra* note 234.

injury to any other State Party."³⁵² Article 2 defines an environmental modification technique as "any technique for changing—through the deliberate manipulation of natural processes—the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space."³⁵³

Commentators disagree over the extent to which the obligation to prevent severe environmental damage during war has crystallized into customary law. While some believe that the 1977 Protocol I prohibition merely codifies existing customary law,³⁵⁴ others dispute this claim.³⁵⁵ State practice during the recent Gulf War, however, indicates that some form of ban has indeed emerged. Of the conditions dictated to Iraq by the U.N. Security Council resolution establishing a cease fire in the Gulf War,³⁵⁶ one was that Iraq accept liability "under international law" for the environmental damage and depletion of natural resources it had

352. *Id.* art. 1, 31 U.S.T. at 336, 1108 U.N.T.S. at 153. The negotiating record of ENMOD, as reported by the Conference of the Committee on Disarmament (CCD) to the U.N. General Assembly, indicates that the term "widespread" encompasses an area "on the scale of several hundred square kilometers," "long-lasting" means "lasting for a period of months, or approximately a season," and "severe" involves "serious or significant disruption or harm to human life, natural and economic resources or other assets." *Draft Understanding Relating to Article I, in Report by the CCD Working Group on Environmental Modification: Draft Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*, U.N. Doc. CCD/518 (1976), reprinted in U.S. ARMS CONTROL & DISARMAMENT AGENCY, DOCUMENTS ON DISARMAMENT 1976, at 577, 582 (1978).

353. ENMOD, *supra* note 234, art. 2, 31 U.S.T. at 336, 1108 U.N.T.S. at 153. The CCD provided examples of the types of phenomena that could be caused by the use of environmental modification techniques: "earthquakes; tsunamis; an upset in the ecological balance of a region; changes in weather patterns (clouds, precipitation, cyclones of various types and tornadic storms); changes in climate patterns; changes in ocean currents; changes in the state of the ozone layer; and changes in the state of the ionosphere." *Draft Understanding Relating to Article II, in Report by the CCD Working Group on Environmental Modification: Draft Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques*, U.N. Doc. CCD/518 (1976), reprinted in U.S. ARMS CONTROL & DISARMAMENT AGENCY, DOCUMENTS ON DISARMAMENT 1976, at 577, 582 (1978).

354. See, e.g., Waldemar A. Solf, *Protection of Civilians Against the Effects of Hostilities Under Customary International Law and Under Protocol I*, 1 AM. U. J. INT'L L. & POL'Y 117, 133-34 (1986).

355. For example, the United States's position is that the Protocol I prohibition is too broad and vague, and is therefore not a reflection of international customary law. See GREENPEACE REPORT, *supra* note 17, at 123-25.

356. U.N. SCOR 46th Sess., 2981st mtg. at 7, U.N. Doc. S/RES/687 (1991), reprinted in 30 I.L.M. 847.

caused.³⁵⁷ Because the U.N. Security Council did not explicitly state which principle governed, however, it is unclear whether Iraq's liability was based on violation of Protocol I, ENMOD, general customary principles of military necessity and proportionality, or, more generally, on an application of the *Trail Smelter Case* principle.³⁵⁸

*B. Obstacles to the Emergence
of the Right to a Healthy Environment*

Although several of the rights and obligations under international environmental law that have emerged—or are in the process of emerging—give scope and definition to the collective dimension of the human right to a healthy environment, significant gaps in international law prevent effective implementation of the right. These gaps spring from the inability of individuals to assert environmental claims and receive compensation for the damages they have suffered. Because the individual component of the right is severely lacking, the right to a healthy environment has yet to emerge as a full-bodied human right.

Along with the need for practicable and identifiable obligations, discussed above, the existence of realistic and effective implementation machinery is crucial to the recognition of a new human right.³⁵⁹ While international law lacks such machinery, as a general matter, this lack does not always imply that international protections are illusory. For example, enunciation of clear international standards in the emerging global bill of human rights³⁶⁰ has caused gradual improvement in many human-rights situations.³⁶¹ Reliable implementation machinery at the international level, however, would certainly contribute to ensuring the vitality of an emerging human right.³⁶²

357. *Id.* para. 16, 30 I.L.M. at 852.

358. A conference of international experts convened in Ottawa, Canada, on July 9-12, 1991, took the position that Iraq's liability was based on the violation of law of war prohibitions against the wanton destruction of property. *See* Department of Defense Report to Congress on the Conduct of the Persian Gulf War, app. O, The Role of the Law of War (Apr. 10, 1992), 31 I.L.M. 615, 636. They concluded that ENMOD "did not apply to actions of the kinds perpetrated by Iraq," and that Protocol I did not apply because Iraq was not a party to the Protocol. *Id.* at 616-17, 636. Even if Protocol I had been in force, the Conference of Experts questioned whether Iraq's actions satisfied the Protocol's requirement of "long-term" damage to the environment. *See id.* at 636-37.

359. *See* G.A. Res. 41/120, *supra* note 210.

360. *See supra* notes 196-201 and accompanying text.

361. *See* CHEN, *supra* note 6, at 206-09.

362. *See id.* at 441.

As with international law in general, international environmental law lacks effective implementation machinery. Many international environmental regimes include provisions establishing governing councils and secretariats to monitor compliance with treaty obligations.³⁶³ However, implementation is generally dependent upon the willingness of signatories to promulgate effective domestic enforcement legislation.³⁶⁴ Furthermore, UNEP, which has authority to monitor global environmental conditions, is far from being an international environmental protection agency; enforcement of international environmental law is simply not part of its mandate.³⁶⁵

Another significant barrier to the protection of individual environmental claims is the lack of procedural standing for individuals and NGOs before international tribunals. Traditionally, individuals and NGOs were thought of as objects and not subjects of international law, and as such, they have not enjoyed rights or had duties under international law.³⁶⁶ As a result of this dichotomy, international tribunals generally do not have jurisdiction over claims brought by individuals on their own behalf.³⁶⁷ Individual claims may be adjudicated before the ICJ, for example, only if a nation-state, which has accepted the jurisdiction of the Court, is willing to assert those claims on their behalf.³⁶⁸

The fiction of the object/subject dichotomy is belied, however, by the fact that individuals participate in all aspects of the global process of decision and law making.³⁶⁹ In fact, individuals are the ultimate beneficiaries of international legal protections.³⁷⁰ Even customary legal prescriptions against piracy, war crimes, and slavery exist for the benefit of individuals.³⁷¹ As a result, there is a greater willingness to recognize that individuals are subjects of international law. Together with the recent emergence of the international human-rights movement, this development has led to greater protection of human rights and access by individuals to

363. See, e.g., LRTAP, *supra* note 44, art. 10, 18 I.L.M. at 1447 (establishing an executive body); *id.* art. 11 (establishing a secretariat).

364. See, e.g., Vienna Ozone Convention, *supra* note 44, art. 2, para. 2(b), T.I.A.S. No. 11097, at 6, 26 I.L.M. at 1530 (directing parties to adopt appropriate legislation or administrative measures to comply with the treaty obligations).

365. See Gray, *supra* note 45, at 294-95.

366. See CHEN, *supra* note 6, at 76-77.

367. See *id.* at 77.

368. See ICJ Statute, *supra* note 72, arts. 34, 36, 59 Stat. at 1059, 1060, 3 Bevans at 1186.

369. See CHEN, *supra* note 6, at 76-77.

370. See *id.* at 77.

371. See *id.*

international tribunals. For example, the European Court of Human Rights now allows an individual claimant to be a party to an action,³⁷² and the Council of Europe has recently opened for signature a Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms,³⁷³ which recognizes in individuals and NGOs the right to bring petitions before the Court.³⁷⁴ Nation-states, however, have yet to extend procedural standing to individuals in claims brought under international environmental law. Environmental conventions that set up arbitration regimes for the resolution of disputes make such mechanisms available only to State parties.³⁷⁵

The lack of clear standards of liability and compensation for environmental deprivations and damage constitutes a final barrier to the protection of individual environmental claims.³⁷⁶ Once a nation-state has committed an internationally wrongful act, it is generally accepted that the state is internationally liable.³⁷⁷ Breach of an international obligation creates liability to make reparations for the wrongful act or omission.³⁷⁸ Beyond this generality, however, international courts have declined to articulate precise standards for liability.

In the *Chorzow Factory* case,³⁷⁹ for example, the Permanent Court of International Justice noted that, as a general conception of law, any breach of an agreement involves an obligation to make reparations.³⁸⁰ The Court held that reparation was the indispensable complement of a failure to apply a convention, and that this was true whether or not stated as such in the convention itself.³⁸¹ As a measure of compensation, the

372. *See id.* at 103 (observing that under revised rules of conduct, an individual becomes a party to his or her case once it is brought before the court). *See also* Y.B. EUR. CONV. ON H.R. 5-30 (Eur. Court Gen.) (1982).

373. Protocol No. 9 to the Convention for the Protection of Human Rights and Fundamental Freedoms, *opened for signature* Nov. 6, 1990, 30 I.L.M. 693.

374. *Id.* art. 3, 30 I.L.M. at 694.

375. *See, e.g.,* Vienna Ozone Convention, *supra* note 44, art. 11, T.I.A.S. No. 11097, at 13-14, 26 I.L.M. at 1533-34 (establishing mechanisms for settlement of disputes).

376. *See* KISS & SHELTON, *supra* note 1, at 355-57.

377. *See Draft Articles on State Responsibility*, art. 1, U.N. GAOR, 35th Sess., Supp. No. 10, at 5, U.N. Doc. A/35/10, *reprinted in* [1980] 2 Y.B. Int'l L. Comm'n (Part 2) 30, U.N. Doc. A/CN.4/SER.A/1980/Add.1 (Part 2). *See also* CHEN, *supra* note 6, at 403.

378. *See* CHEN, *supra* note 6, at 413.

379. *Factory at Chorzow (Germ. v. Pol.)*, 1928 P.C.I.J. (ser. A) No. 17, at 47.

380. *Id.* at 29.

381. *Id.*

Court specified that amount of reparation that would, "as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed."³⁸² Beyond *Chorzow* there is no further development under customary law regarding the amount of reparation to be made.³⁸³

The Stockholm Declaration recognizes the failure of customary law to refine further standards governing liability and compensation for environmental harm. The Declaration calls on nation-states to "co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage."³⁸⁴ International conventional law, however, has done little in this regard. In fact, the conventions that recognize the lack of liability and compensation standards do little but echo the exhortations of the Stockholm Declaration,³⁸⁵ while others are entirely silent on the subject.³⁸⁶

Commentators have demanded that these barriers to individual claims be removed. Some, for example, have called for the creation of an international environmental protection agency to protect environmental rights, and the opening of already existing international tribunals to individual petitions.³⁸⁷ Although authoritative decision makers appear in principle to accept the need for clarification of international liability and compensation standards, they are reluctant to concede state sovereignty in ways that would allow international tribunals to establish such standards. This reluctance is evidenced by the refusal of nation-states to bring suit against the Soviet Union for injuries caused by the release of the radioactive cloud from the Chernobyl nuclear power plant, as well as by the failure of downstream states to bring suit against Switzerland for injuries resulting from the release of toxic mercury into the Rhine River.³⁸⁸

382. *Id.* at 47.

383. *See* CHERNOBYL: LAW AND COMMUNICATION, *supra* note 311, at 23.

384. STOCKHOLM DECLARATION, *supra* note 95, princ. 22, 11 I.L.M. at 1420. The *Rio Declaration* echoes this requirement and adds an additional obligation that States "develop national laws regarding liability and compensation for victims of pollution and other environmental damage." RIO DECLARATION, *supra* note 110, princ. 13, 31 I.L.M. at 879.

385. *See, e.g.*, UNCLOS, *supra* note 44, art. 235, para. 3, 21 I.L.M. at 1315; Basel Convention, *supra* note 44, art. 12, 28 I.L.M. at 668.

386. *See, e.g.*, LRTAP, *supra* note 44, art. 8, para. f, n.1, 18 I.L.M. at 1445.

387. *See* Amedeo Postiglione, *A More Efficient International Law on the Environment and Setting Up an International Court for the Environment Within the United Nations*, 20 ENVTL. L. 321 (1990); *see also* Palmer, *supra* note 89, at 278-82 (arguing that new international institutions for environmental protection should be created, rather than enhancing existing ones).

388. *See* CHERNOBYL: LAW AND COMMUNICATION, *supra* note 311, at 27 (stating

Ironically, the process by which Iraq was held liable for widespread environmental injury arising from the deliberate acts of its leaders during the Gulf War merely reinforces this trend. The U.N. Security Council Resolution 687, which ended hostilities in the Persian Gulf conflict, affirmed that "Iraq . . . is liable under international law for any direct loss, [or] damage, including environmental damage and the depletion of natural resources . . . as a result of Iraq's unlawful invasion and occupation of Kuwait."³⁸⁹ The determination of liability under international law, however, was made without any formal adjudication of liability—Iraq was simply required to accept liability as a condition for the cease-fire.³⁹⁰ Furthermore, the process through which claims for the environmental damage caused by Iraq will be awarded illustrates continued resistance to recognizing individuals as subjects of international environmental law. The U.N. Claims Commission, which was established to process the claims against Iraq, is denied authority to consider individual claims.³⁹¹ Instead, claims are to be consolidated and filed by individual governments on behalf of their nationals and corporations, and payment of compensation will be made directly to the claiming governments.³⁹² The Secretary-General of the United Nations reported that this procedure was adopted because of the concern that the consideration of individual claims might take a decade or more and "could lead to inequities in the filing of claims [thus] disadvantaging small claimants."³⁹³ Whatever the reason, however, individuals whose sponsoring state will not bring a claim on their behalf are left in no better position than they would have been had they tried to bring petitions through traditional international legal channels.

that as of 1988, no state had filed suit against the U.S.S.R. following the Chernobyl accident); see also KISS & SHELTON, *supra* note 1, at 220-21 (stating that settlement for damage caused by the Rhine spill was achieved through negotiations among riparian states affected).

389. U.N. SCOR Res. 687, *supra* note 356, para. 16, 30 I.L.M. at 852.

390. See *id.* art. 33, 30 I.L.M. at 854 (declaring a formal cease-fire between Iraq, Kuwait, and the Member States cooperating with Kuwait upon notification to the Secretary-General and the Security Council of the United Nations of Iraq's acceptance of the provisions of Security Council Resolution 687).

391. *Report of the Secretary-General Pursuant to Paragraph 19 of Security Council Resolution 687*, para. 21, U.N. Doc. S/22559 (1991), reprinted in 30 I.L.M. 1706, 1708-09 [hereinafter *Report of the Secretary-General*]. The report of the Secretary-General was adopted by the U.N. Security Council. See U.N. Doc. S/22613 (1991).

392. *Report of the Secretary-General*, *supra* note 391, para. 28, 30 I.L.M. at 1709-10.

393. *Id.* para. 21, 30 I.L.M. at 1708-09.

V. CONCLUSION

Various components of the third-generation human right to a healthy environment have emerged under international law.³⁹⁴ The greater specificity of obligations and rights developing under international environmental law provides increasing protection not only for individual human beings against continued environmental degradation, but also for the natural ecosystems on which the continued health and vitality of the planet depend. The solidarity component of the right is also emerging as nation-states show greater willingness to cooperate in addressing environmental concerns.³⁹⁵ Moreover, the countervailing claim of the right to development will not obstruct the development of the right to a healthy environment. The concern of less developed nations that environmental protection regimes might present obstacles to their efforts to improve the standard of living of their citizens is giving way to a recognition of the interrelationship between sustainable environmental policies and development goals.³⁹⁶ As long as international environmental law continues to recognize the special circumstances of LDCs, and the developed nations remain willing to assist LDCs with the necessary technologies and financial resources, the rights may continue to develop in tandem.

Several critical elements of the right to a healthy environment, however, must develop before the right can be recognized as a full human right. The individual component of the right remains in an embryonic state due to both the lack of procedural standing for individuals before international tribunals, and the lack of clear standards for determining liability and compensation for environmental harm. The refusal of authoritative decision makers to concede state sovereignty and accept individual claimants as proper subjects of international environmental law suggests that the protection of environmental rights may well continue at the mercy of international politics. It remains to be seen whether political elites will recognize that it is in everyone's interest to develop an effective international environmental regime to prevent the impending environmental crisis that looms over this planet. Until they do, the recognition and protection of the human right to a healthy environment will remain an unobtainable goal.

James T. McChymonds

394. See *supra* notes 219-358 and accompanying text.

395. See KISS & SHELTON, *supra* note 1, at 151-53 (listing international agreements since 1968 to cooperate on environmental issues).

396. See *supra* notes 179-88, 261-79, 313-45 and accompanying text.

