

WHICH ENVIRONMENT AND WHAT LAW?

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I. INTRODUCTION

The movement towards environmental protection is, as it has been from its start, an attempt to alter the relationship between people and the Earth's environment. Specifically, environmentalists have long counseled that the need for a continuing source of natural resources necessitates the integration of the goals of environmental protection and human welfare.¹ The

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1. For example, in 1969, the United States Congress passed the National Environmental Protection Act (NEPA), 42 U.S.C. § 4321, *et seq.* (1988). The purposes of that act are, in part,

lack of such integration was made clear in the years before the first Earth Day (April 22, 1970) by the ugliness that many found in the results of modern industrial development and in the alienation from the natural world which that development seemed to represent.² While remediation of environmental degradation is the necessary, and often the most obvious, tactic of advocates trying to make up for lost time and resources, the primary focus of environmentalism remains the attempt to alter behavior on both

to encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation.

Id. Representing a larger constituency, members of the world community met in Stockholm, Sweden, and, in 1972, adopted the United Nations Declaration on the Human Environment. This Declaration recognizes that:

[a] point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences [T]hrough fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes To defend and improve the human environment for present and future generations has become . . . a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of world-wide economic and social development.

Declaration of the United Nations Conference of the Human Environment, June 16, 1972, Preamble, para. 6, U.N. Doc. A/CONF.48/14 [hereinafter *Human Environment Conference*].

2. The need to address this estrangement was captured early on in the burst of scholarship and activity that continues to propel the environmental education movement. Going beyond traditional nature education, as described in Anna Botsford Comstock's seminal book *HANDBOOK OF NATURE STUDY* (1911), modern environmental education theorists envision such education to be about interpersonal communication, the culture of participation in modern society, problem solving in a modern context, as well as education about the biophysical environment. See *infra* notes 57-60 and accompanying text. See generally WHAT MAKES EDUCATION ENVIRONMENTAL? (Noel McInnis & Don Albrecht eds., 1984); Harold R. Hungerford & Trudi L. Volk, *Changing Learner Behavior Through Environmental Education*, 21 J. ENVTL. ED. 8 (1990).

individual and governmental levels.

Despite the long-standing resolve to change this behavior, it is difficult to determine whether the goals of environmentalism have, so far, been successful. The question of success, more frequently asked by critical environmentalists than by critics of environmentalism, is complicated because the parameters of environmentalism's discourse have changed significantly since Earth Day. In particular, the "environment" that we are trying to save, protect, or enhance is far from clearly defined. For example, at the time of the passage of the National Environmental Policy Act (NEPA), the environment in question was the "ecological systems and natural resources important to the [n]ation."³ It easily followed that in the early 1970s cities were considered the epitome of what was negative about a world unconcerned with its natural environment; the first environmental regulations tended to ignore the unique realities of the urban environment by treating cityscapes as if they were no different from other landscapes.⁴ In the 1990s, urban environmental issues such as solid waste disposal, indoor air pollution, housing, green-space management and urban land-use prioritization define much of the modern environmental agenda.

Furthermore, because many of the short-term objectives of environmentalism are remedial, the parameters of the "environment" to be protected may shift with the achievement of environmental protection. While advocates of environmental regulations cannot claim to have had so many successes as to be putting themselves out of business, this may be true on a certain level. For example, in the early days of international environmental regulation much treaty law was focused on the protection of wildlife and plant species,⁵ after the promulgation of

3. 42 U.S.C. § 4321 (1988).

4. See, e.g., Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 (1988); Endangered Species Act of 1973, 16 U.S.C. § 1531 (1988); Federal Water Pollution Control Act, 33 U.S.C. § 1251 (1988).

5. E.g., The International Convention for the Regulation of Whaling, 161 U.N.T.S. 72 (Dec. 2, 1946), the International Convention for the Protection of Birds, 638 U.N.T.S. 186 (Oct. 18, 1950), and the International Plant Protection Convention, 150 U.N.T.S. 67 (Dec. 6, 1951).

the Convention on the International Trade of Endangered Species of Wild Fauna and Flora,⁶ international regulation for the protection of specific species has been quiet for much of the past decade.⁷

The range of environmental inquiry is now so broad that asking whether 1970s environmentalism has achieved its goals means relatively little; it is similar to asking whether feminism has been successful—it depends on how broadly one defines the relevant goals and how one defines success. However, while it may be difficult to measure success quantitatively within the context of environmental protection,⁸ it is possible to make conclusions about the shifting perception of humanity's relationship to the physical environment by looking at broad societal trends associated with modern environmental regulation. This essay describes such influences according to three categories of my own creation: social, personal and temporal integration. While the categories are certainly artificial, that modern environmental law can be described by its propensity to reflect the integration of issues and goals is itself a testament to the success of efforts to inculcate behavior protective of the environment.

II. SOCIAL INTEGRATION

Environmentalism, especially in the United States, is beholden to the nineteenth century transcendentalists for its imagery. The reverence for nature held by Emerson and Thoreau pervades the popular understanding of why we protect the environment. This romanticism dictated early environmental priorities and, specifically, ensured the establishment of the first

6. 993 U.N.T.S. 243 (Mar. 3, 1973).

7. Exceptions might include the Convention for the Conservation of Salmon in the North Atlantic Ocean, T.I.A.S. No. 10789 (Mar. 2, 1983) and the International Tropical Timber Agreement, U.N.C.T.A.D. Doc. TD/Timber/11 (1983).

8. For a discussion of the difficulty of quantifying success in environmental regulation, see, e.g., Barry Commoner, *A Reporter At Large: The Environment*, NEW YORKER, June 15, 1987, at 46.

national parks.⁹ Protecting, restoring and promoting wilderness areas is the baseline from which environmental enthusiasm grew in the 1960s. As reflected in the programs of the United States Environmental Protection Agency and many of the major environmental organizations, environmental law is concerned with protecting a wilderness that few people will experience first hand.

Social integration refers to a broadening of this fairly narrow definition of the environment that the world is attempting to protect. No longer is the subject of regulation limited to majestic forests and other untamed areas; it also includes the inner cities and the global atmosphere. To some extent, this shift in focus from "nature-emulating" environmental protection to "human-effect/inclusionary" environmental protection is an acknowledgement of the alienation with which environmentalism first attempted to wrestle; however, it took twenty years to understand that many people's paradigmatic environment is not a natural one. Instead of focusing primarily on the preservation of natural areas, there is presently a great emphasis on the environmental issues daily facing the approximately 45% of the world's population living in urban areas.¹⁰ Once the focus of environmental concern shifts to these "new" subjects, there is less of a demarcation of where environmental issues begin and end. In a modern conception of environmentalism, housing, poverty and personal safety may reasonably be included as environmental issues.

9. While the Yosemite Valley in California was withdrawn from private use in 1864, Yellowstone Park was the first formal national park, established by congressional act in 1872. Act of March 1, 1872, ch. 24, § 1, 17 Stat. 32. For a discussion of the genesis and role of national parks in United States history and culture, see JOSEPH L. SAX, *MOUNTAINS WITHOUT HANDRAILS: REFLECTIONS ON THE NATIONAL PARKS* (1980); JOHN ISE, *OUR NATIONAL PARK POLICY: A CRITICAL HISTORY* (1961).

10. U.N. Publication ST/ESA/SER.A/116, Sales No. E.90.XIII.4 (1990).

A. *Urbanification of Environmental Issues*

Why, until recently, has there been little effort to link environmental protection to the quality of life issues important to urban dwellers? It could not be because suburbanites were closer to tropical rainforests than urbanites; rural children did not have a greater ability to understand the workings of an ecosystem or a hydroelectric facility than did urban children. It was as if there were an experiential component to environmentalism that disallowed city dwellers to understand fundamental environmental concepts. The conventional wisdom was that because people in the cities had limited access to "nature," they could not understand what all the fuss was about; environmental priorities must have been lower on their list of concerns.

This line of thought contorted both the goals of environmentalism and the nature of people's interaction with the environment. First, the issues that are primarily important to all people are those that most affect their personal environment—the quality of their immediate living conditions. Of course, crime, the quality of the local school system, and the breathability of the air are probably on everybody's list of concerns about their community. However, in urban areas lacking resources, responding to the influx of drugs and maintaining an acceptable level of spending for social programs, often represent the primary funding concerns. These are aspects of the urban dweller's environment that are as important to that person as other environmental issues might be to a rural dweller.¹¹

Second, conventional wisdom assumes that the experiential environment of a city—including the islands of "natural" systems in the cities that parks provide—cannot be as useful a metaphor for natural processes and resources as the experiential environment of nonurban environments. To suggest that urban-dwellers are further from nature than are suburbanites is to misunderstand both

11. Of course, "traditional" environmental issues are also of great concern to urban dwellers. This can be seen in the increasing establishment of grassroots urban environmental organizations. See Ronald A. Taylor, *Ecological Front Shifts to Inner City*, WASHINGTON TIMES, April 20, 1990, at H2. See sources cited *supra* notes 12 and 20.

the realities of nature and the dysecology of a suburb. Finally, the passion with which urbanites rally for promotion and protection of a way of life considered desirable certainly parallels that of traditional environmentalists.¹²

In the 1990s, awareness about environmental issues has reached the point where people are beginning to understand that the operative question is not "How many acres can we save?" but "What defines a reasonable quality of life and how do we bring it about?" The latter question places people, in general, and each person trying to define her own relationship with the Earth as the central variables of environmental management. While there are relevant arguments to make about saving species and natural processes for their own sake,¹³ the political and social contexts of resource management make environmental protection primarily a tool for elevating a perceived quality of human life. The role of those who attempt to promote environmentalism is, therefore, to define that quality of life in a way that includes conservation of natural resources and processes.

B. *Environmental Racism*

As the term is presently used, environmental racism refers to three phenomena. In 1987, the United Church of Christ, Commission for Racial Justice, released a report correlating toxic waste siting in the United States to the socioeconomic class of the

12. For example, the increased interest in historic preservation, as well as the emergence of local organizations that integrate community pride, quality of life, and environmental protection, well express this aspect of social integration. See, e.g., Marcia Coyle, *When Movements Coalesce*, NAT'L L.J., Sept. 21, 1992, at S10; Marcia Coyle, *Town Fights Waste Plan*, NAT'L L.J., Sept. 21, 1992, at S9. See also Steve Schneider, *Environmental Racism? Residents say Sewage Plant 'Ravages' Community*, N.Y. NEWSDAY, May 4, 1992, at 21.

13. See, e.g., PAUL W. TAYLOR, *RESPECT FOR NATURE: A THEORY OF ENVIRONMENTAL ETHICS* 260-62 (1986). See also Christopher D. Stone, *SHOULD TREES HAVE STANDING? TOWARDS LEGAL RIGHTS FOR NATURAL OBJECTS*, 45 S. CAL. L. REV. 450 (1972).

inhabitants of those locations.¹⁴ The results, while not surprising to many, showed a clearly negative correlation: "communities with greater minority percentages of the population" carry the burden of greater risks from hazardous waste related problems.¹⁵ That is, in addition to suffering from a history of racially-based discrimination, communities composed primarily of people of color are subjected to the toxic refuse of the economic system that abused them in the first place.¹⁶ While the institutionalized nature of this racism is such that no single act is to blame for the "as applied" results of the siting, this hardly detracts from the oppressive nature of the power dynamics that comprise siting decisions. Zoning has traditionally been a function of local government. Those localities that have greater amounts of money and power are more able to block attempts to site disagreeable uses of the local landscape. When politically vulnerable and economically depressed communities are offered minimal economic incentives for the use of their open space, it becomes especially clear how these communities end up bearing inordinate environmental risks.¹⁷

Environmental racism has at least one recognized international form, usually referred to as neocolonialism. Widely discussed during the 1960s and 1970s, and brought to the formal

14. UNITED CHURCH OF CHRIST, COMMISSION FOR RACIAL JUSTICE, TOXIC WASTES AND RACE IN THE UNITED STATES: A NATIONAL REPORT ON THE RACIAL AND SOCIO-ECONOMIC CHARACTERISTICS OF COMMUNITIES WITH HAZARDOUS WASTE SITES (1987) [hereinafter TOXIC WASTES AND RACE].

15. TOXIC WASTES AND RACE, *supra* note 14, at 23.

16. Beginning in the late 1980s, this analysis also found expression in the publication of facts regarding siting of hazardous waste sites on the reservations of Native Americans. *E.g.*, Len Hall, *Ranchers Protest Planned Landfill on Indian Reservation*, LOS ANGELES TIMES, Aug. 25, 1992, at B1; Thomas W. Lippman, *On Apache Homeland, Nuclear Waste Seen as Opportunity*, WASHINGTON POST, June 28, 1992, at A3.

17. For example, seven communities around the United States are now vying to become storage sites for high-level nuclear wastes. Those communities that are actually selected to be nuclear depositories will receive millions of dollars in grants. Keith Schneider, *Grants Open Doors for Nuclear Waste*, N.Y. TIMES, Jan. 9, 1992, at A14.

attention of the world with the promotion of the New International Economic Order (NIEO) in 1974 by the "Group of 77,"¹⁸ neocolonialism suggests that even after many less-industrialized countries have gained their independence, the industrialized world continues to control their economies through economic means.¹⁹ The motivation for this control includes the desire of the nations of the industrialized world to maintain access to cheap natural resources, without which industrialized economies would stagnate. The results of the lending and direct control tactics that comprise neocolonialism is that the environments of less industrialized countries are degraded by foreign entities that have no cultural tie to the affected environment and who are often immune from host-country environmental regulations.²⁰

The third phenomenon associated with environmental racism is environmentalism itself. In the early days of environmental protection in the United States, most people involved in promoting

18. The "Group of 77," an affiliation of less-industrialized members of the United Nations, put forth its formal program in a series of documents in the mid 1970s. See generally UNITAR DOCUMENT SERVICE, A NEW INTERNATIONAL ECONOMIC ORDER: SELECTED DOCUMENTS, 1945-1975 (Alfred George Moss & Harry N.M. Winton comps., 1974). These include: "Declaration on the Establishment of a New International Economic Order" (1974), "Programme of Action on the Establishment of a New International Economic Order" (1975), and "Charter of Economic Rights and Duties of States" (1974).

19. The supposed method of this neocolonial control is subtle, varied and institutionalized. It usually is seen in the lending practices of private banks, governments, and international lending organizations such as the International Monetary Fund. These practices, it is suggested, tend to be either culturally paternalistic or narrow-mindedly capitalistic (e.g. providing aid only to promote a market for the aiding state's goods and leaving the receiving economy impoverished of natural resources and foreign capital). See generally PAUL M. WATSON, OVERSEAS DEVELOPMENT COUNCIL, DEBT AND THE DEVELOPING COUNTRIES: NEW PROBLEMS AND NEW ACTORS (1978); WARNER MAX CORDEN, THE NIEO PROPOSALS: A COOL LOOK (1979).

20. For a description of some of the results of such practices, see generally WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, UNITED NATIONS, OUR COMMON FUTURE (1987).

the effort were college-educated, white, and relatively affluent.²¹ As the protests became institutionalized in the large, nonprofit environmental organizations that are often considered the vanguard of environmentalism, the "nature-emulating" objectives of the founders seemed to remain the primary focus of these organizations.²² Not only did the focus of their efforts continue to be aspects of environmental protection to which the United States' urban, non-white population could hardly relate, but these groups continued to have fairly unsuccessful affirmative action programs well into the 1980s.²³

Because the issue of the use and abuse of power directly relates to the efficacy in which environmentalism helps promote "a better life in an environment more in keeping with human needs and hopes,"²⁴ the charge of environmental racism is very important. In recent years, discussions regarding management of natural resources that may result in increased domestic spending for less-industrialized countries invariably include negotiation over reparations, access to technology and other aspects of environmental equity. For example, this dynamic was seen in the agenda and structure of the recent United Nations Conference on Environment and Development (UNCED), as well as in many modern international environmental instruments.²⁵ Furthermore,

21. See generally Claudia Maclachlan, *Tension Underlies Rapport With Grassroots Groups*; *THE BIG 10: A Wake-Up Call*, NAT'L L.J., Sept. 21, 1992, at S10; Renee Loth, *Bringing Earth Day Back Down to Earth*; *Grassroots Activists Tweak 'Elitist' Brethren*, BOSTON GLOBE, Apr. 21, 1991, at A33; Brad Knickerbocker, *'Green' is Not White*, CHRISTIAN SCIENCE MONITOR, Dec. 6, 1990, at 13; John Lancaster, *Role of Minorities in Environmental Movement Remains Limited*, WASHINGTON POST, Nov. 23, 1990, at A14.

22. Another forum for this charge is the growing numbers of environmental organizations found on college campuses. See, e.g., Keith Schneider, *Student Group Seeks to Broaden Goals of Environmental Movement*, N.Y. TIMES, Oct. 7, 1991, at A12.

23. See sources cited *supra* notes 11 and 19.

24. *Human Environment Conference*, *supra* note 1.

25. For example, the Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, 26 I.L.M. 1541, contains provisions for "Research, Development, Public Awareness and Exchange of Information," and "Technical Assistance." *Id.* at 1556-57. The Protocol also outlines special treatment for less-industrialized countries, including extended compliance

concerns about international environmental protection have begun to reach lending institutions. For several years, the World Bank has been attempting to incorporate environmentally protective criteria into its lending decisions.²⁶

To their credit, some major United States environmental organizations are responding to charges of environmental racism by recognizing the deficiencies in the traditional conception of environmentalism's goals. These organizations have begun to promote affirmative hiring practices.²⁷ The reasonableness of altering the organizations' focuses is more difficult to discern. The nonprofit organizations' agendas reflect financial as well as political decisions. Many of these groups are partially funded through the donations and dues of their members; as long as the funders continue to demand "wilderness" issues, the organizations will have to continue to respond.²⁸ Perhaps striking a reasonable balance between modern ideals of environmentalism and traditional subjects of environmental protection should be the most important objectives of these groups. As awareness increases, and the integration process continues, this balance will continue to shift toward a stronger emphasis on urban issues. Or, alternatively, new organizations will be founded.

Environmental racism is, paradoxically, a charge with

deadlines, as well as support for technology transfer and funding mechanisms. *Id.* at 1555.

26. For a description of some of these policy changes, see Jeremy Warford & Zeinab Partow, *Evolution of the World Bank Environmental Policy*, 26 *FINANCE & DEVELOPMENT*, Dec. 1989, at 5. However, these new policies have been criticized as inadequate. See, e.g., THE NETHERLANDS IUCN COMMITTEE *Banking on the Environment: An NGO Publication on Social and Environmental Aspects of Projects and Programmes of the World Bank* (1990).

27. For example, since 1990, the Natural Resources Defense Council has increased the number of people of color on its staff from 14 to 35 (out of a total of about 160); of those 35, nearly half are salaried staff. Natural Resources Defense Council, *Building Bridges*, NRDC NEWSLINE, Apr. 1992, at 3. See also sources cited *supra* notes 11 and 19.

28. The difficulty in maintaining such a balance may be seen in the identity crises many environmental organizations are presently undergoing as a result of shifting priorities and demographics. See, e.g., Anne Raver, *Audubon Society Pursues an Identity Beyond Birds*, N.Y. TIMES, June 9, 1991, at 1.

which environmentalists should be proud. The charge indicates that people are beginning to recognize that environmental issues and broad issues of societal equity are part of the same debate. The fact that the charges have motivated many environmental organizations to reexamine institutional policies is an important indication that environmentalism is perceptive enough to recognize that its institutional weaknesses cannot be tolerated in an interdependent world.

III. PERSONAL INTEGRATION

Many environmental laws in the United States are schemes to force corporations—traditionally labelled as the true environmental culprits—to keep their practices, processes, and products clean.²⁹ While this focus on corporate responsibility may have been necessary to break the inertia of a society raised on images of big capital's beneficence, it created a regulatory system that to a large extent left individuals with little role in the establishment or promotion of environmentally sound behavior.³⁰ In the early years of environmental regulation most individuals were only peripherally involved in the promotion of environmental issues; this was limited to local participation in beach clean-ups and the workplace regulation of certain livelihoods.³¹

Personal integration refers to the changing role of individuals in the effort to modify humanity's collective

29. For example, the regulatory scheme of the Clean Air Act, in large part, focuses on restricting the permissible emissions of pollutants by large stationary sources; these sources are primarily industrial. In particular, see 42 U.S.C. § 7410-11 (1990). As another example, household waste is exempt from the definition of solid waste under the Resource Conservation and Recovery Act. 42 U.S.C. § 6903(27) (1988).

30. One outlet for citizen participation was in the courts, as a result of the citizen suit provisions that began to be written into environmental statutes. See *infra* notes 37-39 and accompanying text. Unfortunately, because of the complexity of environmental litigation, such provisions have been most useful to professional environmental advocates, not to the prototypically harmed individual.

31. Examples include farming and those vocations governed by the Occupational Safety and Health Act, 29 U.S.C. § 651 (1988).

relationship with the Earth's environment. This change might be understood as the realization that, if environmentalism failed to involve individuals in the protection of their own quality of life, then it was bound to be hollow and insular. Such environmentalism would fail to be a reflection of human values. Based on increasing environmental awareness among the citizenry, the large-scale loss of life due to a series of somewhat avoidable disasters, and the urgings of a younger generation that had been educated primarily after 1970, individual involvement in environmentalism began in earnest in the late 1980s.

A. *The Individual's Right to a Healthful Environment*

Since the publication of the United Nations Declaration on the Human Environment in 1972, there has been some discussion of the recognition of a human right to a clean environment.³² This position is, in part, a response to a growing perception that the quality of life in less-industrialized countries is being sacrificed for the protection of the global environment; advocates posit the need for the recognition of a right to a clean environment so that a formal adjudicatory system may ensure compensation for breaches of the right. At the beginning of this movement, following the arguments of the NIEO, international instruments were passed reaffirming the right of individual countries to exploit natural resources within their boundaries without interference from outside forces.³³ Furthermore, beginning in the mid 1970s, a number of international instruments were promulgated to support

32. This right might flow from a growing human rights jurisprudence, from international legal precedent, from accepted economic guarantees and even from international custom. See generally W. Paul Gormley, *The Legal Obligation of the International Community to Guarantee a Pure and Decent Environment: The Expansion of Human Rights Norms*, 3 GEORGETOWN INT'L ENVTL. L. REV. 85 (1990).

33. Both the Charter of Economic Rights and Duties of States, *supra* note 17, at art. 3, and the *Human Environment Conference*, *supra* note 1, at 1420, recognize this point of view.

environmental management in a strictly regional context.³⁴ Finally, the Brundtland Commission was charged, in 1983, to examine the relationship between development and environmental protection.³⁵ The sentiment that injustice must be corrected in an effort to protect the environment was reiterated most recently at UNCED, where one of the goals of the conference was to "examine the relationship between environmental degradation and the structure of the international economic environment, with a view to ensuring a more integrated approach to environment-and-development problems in relevant international forums without introducing new forms of conditionality."³⁶

The movement toward the right to a clean environment has a domestic parallel in the United States. One reflection of this is the increasing prosecution of environmental crimes. While many environmental statutes in the United States have provisions for criminal enforcement of the laws,³⁷ enforcement agencies generally did not deem such actions to be a priority in the past. However, as white collar environmental crime continues to occur, and as the stakes increase with the costs of environmental remediation, prosecution of such crimes has increased.³⁸ Using

34. E.g., 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, 20 I.L.M. 746, Regional Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Mar. 24, 1983, 22 I.L.M. 221.

35. OUR COMMON FUTURE, *supra* note 20, at ix. The commission is often referred to as the Brundtland Commission after its chairperson, Gro Harlem Brundtland.

36. U.N.G.A. Resolution 44/xxx of Dec. 18, 1989 on the U.N. Conference on Environment and Development, A/C.2/44/L.86, at I(15)(h). Ironically, the Earth Summit saw the United States acting chauvinistically with respect to the environment. Until recently, the United States has been fairly representative of the industrialized world that has urged, in effect, the global-oriented sacrifice which the less industrialized nations are rejecting.

37. E.g., Resource Conservation and Recovery Act, 42 U.S.C. § 6928(d); Federal Water Pollution Control Act, 33 U.S.C. § 1319(c).

38. See, e.g., Allan R. Gold, *Increasingly, Prison Term Is the Price for Polluters*, N.Y. TIMES, Feb. 15, 1991, at B6; Iver Peterson, *New Jersey Is the Garbage State No More; Once Known for Its Pollution, It Is Now Known for Getting Tough on Polluters*, N.Y. TIMES, Aug. 29, 1992, at 21.

the courts to enforce environmental laws is more than a necessary reaction to the existence of such laws; that environmental crimes are seen as an injustice worthy of increasing amounts of energy indicates a change in valuation of the object of protection.

Beyond statutory support for a right to government protection of the environment, individuals' increasing ability to employ the legal system in defense of environmental protection, as discussed below, indicates a shift in awareness of the role of individuals with respect to environmental protection. Individuals now feel that they have a right to more than just citizen suits; they have a right to protect the food that they eat, the integrity and safety of the place where they live and, in general, the entire physical environment for their children. While this might not seem unusual to a generation rocked by the Love Canal and Bhopal disasters, it is these sorts of protections that were left exclusively to the government not long ago.

B. Personal Action

The inclusion of citizen suit provisions in early environmental statutes³⁹ reflects the importance of citizens' direct involvement in environmental protection. Allowing citizens to initiate lawsuits gauged well the lengths to which individuals would be willing to go to maintain a healthful environment. After twenty years of use, and in recognition of the successes of citizen enforcement primarily through the legal action of environmental organizations, citizen suit provisions are now regularly written into environmental laws.⁴⁰ Such provisions both circumvent many of the complex standing issues associated with environmental

39. For example, the citizen suit provision of the Clean Air Act, at 42 U.S.C. § 7604, has been in place since the Act's passage in 1970. See also *supra* note 29 and accompanying text.

40. For example, the 1990 Amendments to the Clean Air Act strengthened the citizen suit enforcement provisions of that statute. See 42 U.S.C. § 7604.

litigation⁴¹ and provide congressional support for citizen action to take environmental matters into their own hands. The combination of citizen access to the courts (with respect to environmental claims) and increasingly specific environmental statutes and deadlines provides citizens with a fairly effective enforcement mechanism.

Citizen involvement in environmental litigation has a value greater than just enthusiastic enforcement. While planners often lament the individual determination that is manifested in the Not-In-My-Backyard (NIMBY) syndrome, such personalized use of democratic processes is a remarkable characteristic of an evolving environmental awareness.⁴² This awareness that people can help to make, protect, and enhance their own world is the natural result of a populace that understands a clean environment to be a "right." Given that environmental issues directly affect individuals' daily lives, it is not surprising that people have a large stake in environmental protection, both in enforcement and in policy determinations. From serving on local land-use planning boards to participation under the Emergency Planning and Community Right-to-Know Act,⁴³ the *empowerment* of the individual is becoming a central characteristic of environmental protection.

A final aspect of personal participation relates to nonlegal involvement. When modern environmentalism began in earnest in the 1970s, there was much talk of changing lifestyles. While the

41. Regardless of the recent decision in *Lujan v. Defenders of Wildlife*, 112 S. Ct. 2130 (1992), modern standing law has been significantly broadened by the conceptual challenges of environmental law. Indeed, one of the seminal battles of the nascent environmental law movement was *Scenic Hudson Preservation Conference v. Federal Power Commission*, 354 F.2d 608 (2d Cir. 1965), *cert. denied*, 384 U.S. 941 (1966), where environmentalists were given access to the courts in order to press for review of a decision to allow development of part of the Hudson Valley, arguing that the plan would have adverse environmental effects.

42. Of course, this is true to the extent that the NIMBY syndrome reflects the rise of local advocacy organizations. When the syndrome leads to land use decisions that adversely affect those communities that do not have the resources to organize effectively, it can contribute to environmental racism. See *supra* notes 12-14, and accompanying text.

43. 42 U.S.C. § 11001 (1988).

first benefits of federal regulation in the United States were felt relatively soon after regulations were promulgated,⁴⁴ the sacrifices that come with the apportionment of limited resources are just now beginning to be felt. They are occurring in the home, a place traditionally immune to regulation. Both the recycling and the health food movements might be seen as obvious ways for individuals to actively make environmental concerns part of their daily existence. The importance of these developments, beyond the obvious reductions in landfill dependence and incidence of high blood pressure, is in the lessons that such daily activities provide. Such daily rituals remind those partaking of them that personal actions are woven into the complex network of interactions maintaining the relationship of humans and the physical environment. Equally important, such activities prove to people that individuals can participate in making the world more livable.

C. *Localization of Global Issues*

While the international environmental disasters and concerns of the late 1980s—*e.g.*, Bhopal, global warming, Chernobyl, ozone depletion, transboundary hazardous waste transportation, and the effect of international trade on domestic policy—precipitated many international policy discussions, the most remarkable aspect of the modern response to large-scale environmental disasters must be that, despite international efforts, many of the responses to these challenges are being initiated on the domestic level. Since the late 1980s, Abbie Hoffman's command to "Think Globally, Act Locally" has been given a new twist. As understanding of global processes increases, international environmental issues are becoming more directly important to "local" environmental management.

For example, many international responses have been suggested to respond to the weakening of the stratospheric ozone

44. For example, after laws phasing out the presence of lead in gasoline were enacted in the mid-1970s, total annual lead emissions decreased by 86% between 1975 and 1985. Commoner, *supra* note 8, at 47. See also ERIC A. GOLDSTEIN & MARK A. IZEMAN, *THE NEW YORK ENVIRONMENT BOOK* 88 (1990).

layer. Over the past several years there have been numerous international conferences and treaties devoted to creating international limitations on the production of ozone-depleting chemicals.⁴⁵ There has also been a domestic response to ozone depletion. In the United States, national air pollution legislation limiting the emission of ozone depleting gases trickles down to the state and local level in a system of state implementation plans that force state governments to actively inventory each potential pollutant for each proposed industry and to determine to what extent to limit its emissions.⁴⁶ When a local business is meeting with local environmental enforcement agents to work out how the business can reduce its effect on ozone depletion, an impressive connection has been made.

There are other examples of locally implemented responses to global environmental challenges. Beyond the air pollution emissions regulations that seek to limit ozone-weakening chemicals, local energy prices and air pollution standards have forced car and gasoline manufacturers to redesign their wares with the global environment in mind. Moreover, people are responding to threats of global warming by planting trees. In Yellowstone Park and in Newark, New Jersey, there are groups reforesting in an attempt, at least in part, to increase the rate of carbon-dioxide conversion to oxygen, and thus to increase the ameliorative effects of forest cover.⁴⁷

The recent emphasis on recycling is another example of this social internalization of global problems. Resource recycling has long been associated with environmental activism and the motivation to recycle has often been local; landfill space is

45. The first international instrument devoted to ozone layer protection was the Vienna Convention for the Protection of the Ozone Layer, Mar. 22, 1985, 26 I.L.M. 1529. In an effort to strengthen its provisions, this document has been amended and supplemented several times in the years since its passage.

46. The specific provisions to limit the emission of gases that deplete the stratospheric ozone layer are found in the federal Clean Air Act, especially at 42 U.S.C. § 7671 (1990).

47. Andrew H. Malcolm, *Our Towns: City Children and Seedlings, Helping a Forest*, N.Y. TIMES, Feb. 22, 1991, at B1; Jack Steinberg, *Tree Planting at Home Helps a National Effort*, N.Y. TIMES, Oct. 29, 1989, at 64.

decreasing. However, while landfill concerns are no less important than they were ten years ago—indeed, they are more acute now—there is another aspect of the recycling movement that is beginning to take hold. This is the realization that we are running out of certain resources and that, if we do not use them wisely, people in the future will not be able to benefit from their useful characteristics. While this latter argument for the need to recycle is not new, it is quite different from the emphasis on landfill space. Not only does it emphasize a global perspective, but it does so without stating the obvious rejoinder: why bother if nobody else is also conserving the resource? Model behavior has become not only an important part of environmental enforcement, but the goal of promoting a societal environmental ethic has become reasonable.

The understanding of environmentalism that is emerging in local environmental law and behavior is one that takes awareness and translates it into action. While this has always been a goal of environmental education, it is only after two decades that this vision has become clearer. It is not that communities suddenly believe that their efforts will change the world, but rather that there has been value evolution with respect to what is a relevant difference to make. That is, a community that cannot internalize international environmental problems does not have an identity that is consonant with a protective understanding of the relationship between people and the environment.

IV. TEMPORAL INTEGRATION

Even though environmentalism has always suggested the necessity of sacrifice for those whose excessive standards of living have inordinately diminished the Earth's natural resources, the political position of the United States has allowed our country not to demand consumptive sacrifice for the country's citizenry. The need for measures that primarily better the quality of life of current voters is a powerful political reality; the focus of early environmental regulation was the cleaning up of polluted rivers and littered streets. After twenty years of increasing environmental awareness, the hypocrisy of asking citizens of other nations to accept stringent environmental controls in global environmental

instruments—without sacrificing our own inflated standard of living—is becoming evident.

Temporal integration refers to the recognition that, in the early 1990s, a number of influences are beginning to merge into an intertemporal motivation for environmental regulation. The modern phrase for this traditional notion of long-term, integrated resource management is sustainable development—"development that meets the needs of the present without compromising the ability of future generations to meet their own needs."⁴⁸ Sustainable development is premised on the belief that each generation owes a natural resource base of at least equal quality and magnitude to the next.⁴⁹ It is, therefore, imperative that present generations emphasize long-term environmental remediation and effective resource management. In this way, sustainable development is a mandate to link the future to the past. The catalyst of this linkage is the present population, which is responsible for the intergenerational transfer of natural resources.

A. *The Role of Equity*

One of the most strongly articulated messages at UNCED was that as long as some nations suffer the effects of neocolonialist natural resource depletion, the benefitting industrialized nations retain a debt to these countries. While the exact parameters of this responsibility shift with the resources and historical facts in question, the premise of this primarily moral claim is the same. Because resources were taken in an exploitative way, the industrialized world owes the less-industrialized world compensation. That is, in the context of modern international environmental trade negotiation, it is impermissible to ask less-industrialized nations to sacrifice as much as those who have

48. OUR COMMON FUTURE, *supra* note 20, at 43.

49. For a well-reasoned treatment of the compulsion for this obligation, also known as intergenerational equity, see EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY (1989) and Edith Brown Weiss, *The Planetary Trust: Conservation and Intergenerational Equity*, 11 ECOLOGY L.Q. 495, 540 (1984).

benefitted from industrialization. While this position might seem strident, it is remarkably well accepted. Global treaties that have been negotiated in the past few years often include provisions that account for "the circumstances and particular requirements of developing countries."⁵⁰

The moral imperative supporting sustainable development also supports aggressive environmental management. Given the widely accepted goal of economic modernization, the need for less industrialized countries to undergo industrial development is no longer questioned. Therefore, while there will always be a need for preservation (to assure genetic diversity, if nothing else), the focus of environmental science must be on conservation (*i.e.*, resource management). This means planning. While such efforts regularly go on in domestic governments, the need for coordinated international environmental management is becoming increasingly apparent. One possible obstacle to such management is varying national agendas. Because of history, culture, and social needs, different people conceptualize their relationship with the environment differently. As Mark Sagoff has emphasized, this should not detract from the collective need to protect natural resources; learning to respond to problems within the context of differing goals must become the operative paradigm of modern resource management.⁵¹ Thus, beyond science and financing, we need toleration and education.

Sustainable development is, therefore, one appropriate response to environmental racism. To make the connection even more apparent, sustainable development should not be relegated only to international discourse. Many domestic resource inequities

50. Vienna Convention for the Protection of the Ozone Layer, *supra* note 45. See also *supra* notes 31-34 and accompanying text.

51. The will to manage a natural resource, regardless of the motivation, may provide enough common ground to ensure reasonable negotiation. Mark Sagoff, Senior Research Scholar, University of Maryland, Remarks at the National Association of Environmental Law Societies Annual Conference, Georgetown Law Center (Feb. 1, 1991). Along the same lines, Sagoff has previously argued that ecologists should focus on their common goals rather than expend their energy in an attempt to establish a grand "unified theory." Mark Sagoff, *Ethics, Ecology, and the Environment: Integrating Science and Law*, 56 TENN. L. REV. 77, 149-50 (1988).

also can be understood as exploitation for which no price has been paid to those who rightfully should have benefitted from those resources. Technology and resource transfers—that is, remediation for past injustice—should become one of the moral links of environmentalism between populations within one country, as well as between countries.

B. Looking to the Future with Remediation: Environmental Due Diligence

Exploitative transfers of resources have more than a moral cost. Modern human history can be characterized by continual degradation of the Earth's ecological integrity. Sustainable development implies both remediation of past abuses and a commitment to better future resource management. This does not mean that we should not consume natural resources; rather, it means that we must expend resources to maintain a healthy environment. The question for concerned environmentalists is how can humans create feedback mechanisms that protect this integrity?

In an economic society, the first answer to this question is to recognize the weaknesses of traditional methods of resource valuation. That is, natural resources will not be protected in a market economy when the full societal cost of maintaining the supply of those resources has been inaccurately calculated. Three separate, but associated, movements are seeking to bridge this gap.

The first movement is an attempt to reform the ledgersheet approach to calculating the costs of living. Increasingly, economists are trying to incorporate environmental costs into GNP, price, and other accounting devices.⁵² The second is represented by those theoreticians who are determining new ways

52. See, e.g., William K. Stevens, *Economists Strive to Find Environment's Bottom Line*, N.Y. TIMES, Sept. 8, 1992, at C1; Peter Passell, *Rebel Economists Add Ecological Cost to Price of Progress*, N.Y. TIMES, Nov. 27, 1990, at C1; Thomas H. Tietenberg, *The Poverty Connection to Environmental Policy*, CHALLENGE, Sept.-Oct. 1990, at 26, 29-31 (advocating emissions taxes based on a "full cost" principle); Marlise Simons, *Europeans Begin to Calculate the Price of Pollution*, N.Y. TIMES, Dec. 9, 1990, at E3.

to value traditionally unvalued resources, such as parkland.⁵³ The final movement is toward a broader definition of resource consumption and use. For example, some economists have begun to respond to tropical deforestation by arguing that harvesting of rainforest "crops" might be more profitable, even in the short term, than the yield from "slash-and-burn" agriculture.⁵⁴

The flip side of including environmental costs in the pricing of resource exploitation is the necessity of environmental due diligence. The engines of hazardous waste remediation set in motion by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)⁵⁵ have prompted an impressive connection between the future and the past. Beyond creating an economically important industry in hazardous waste clean-up, CERCLA has, in effect, institutionalized the concept that we owe our posterity a clean resource base. Such forward thinking follows Edith Brown Weiss' dictate that intergenerational equity means more than resource transference; we must ensure that the resource base—and, thus, the environment—of each generation is at least as clean as the previous one.⁵⁶

True resource management, however, is more than cleaning up the past. It entails planning for the future. Unfortunately, it is difficult to predict resource needs.⁵⁷ This lack of certainty as to both the needs of the future and the effects of environmental degradation has prompted a reevaluation of traditional premises of international law. First explicated in association with the North Sea Conventions, the so-called precautionary principle recognizes a nexus between sound management and resource protection. The principle, in short, holds that before any potentially degradatory

53. See, e.g., Gardner Brown, Jr. & Robert Mendelsohn, *The Hedonic Travel Cost Method*, 66 REV. ECON. & STAT. 427 (1984) and Richard G. Walsh et al., *Valuing Option, Existence and Request Demands for Wilderness*, 60 LAND ECON. 14 (1984).

54. See, e.g., Charles M. Peters et al., *Valuation of an Amazonian Rainforest*, 339 NATURE 655 (1989).

55. 42 U.S.C. § 9601 (1988).

56. See WEISS, *supra* note 49, at 17-46.

57. See, e.g., Christopher D. Stone, *Beyond Rio: "Insuring" Against Global Warming*, 86 AM. J. INT'L L. 445, 450-51 (1992).

behavior is undertaken, it is the responsibility of those who would undertake the action to prove, within the relevant community, that the action will not be environmentally harmful.⁵⁸ This unconventional shifting of the onus of responsibility could have quite dramatic implications.⁵⁹ But, most importantly, the increasing acceptance of the precautionary principle reflects a reevaluation of the role of humans in nature. Governing bodies that have accepted the precautionary principle have made the choice to go beyond tort law to shift the responsibility for environmental protectiveness for the sake of the environment.

C. *Environmental Education*

Parallel to the establishment of the modern environmental legal regime has been a movement to improve awareness about the environment. While the scope of this primarily experiential education subfield ranges from grade school terrariums to entire curriculums outside of the classroom, the goal of environmental education remains stridently forward thinking. One scholar has defined environmental education as a process aimed at producing a citizenry that is: 1) knowledgeable about the biophysical and sociocultural environment, 2) aware of environmental problems as well as methods for solving these problems, and 3) motivated and willing to act responsibly in promoting diverse environments that are optimal for living a quality life.⁶⁰ The radical, yet forward-looking, nature of this goal should not be dismissed. By actively teaching an environmental ethic to the younger generation we are nurturing a public consciousness that will lead to future alterations

58. See generally Bernard A. Weintraub, *Science, International Environmental Regulation and the Precautionary Principle: Setting Standards and Defining Terms*, 1 N.Y.U. ENVTL. L.J. 173 (1992).

59. *Id.* For example, a country desiring to dump municipal solid waste in the waters protected by a treaty based on the precautionary principle would have to prove that its action would not cause environmental degradation of the environment below a predetermined standard. Such proof would most likely prove difficult and costly.

60. Uri Zoller, *The Israeli Environmental Education Project: A New Model of Interdisciplinary Student-Oriented Curriculum*, 18 J. ENVTL. ED. 25-26 (1986).

in public policy. There is probably no better prism of environmental integration than that offered by environmental education.

A full generation after environmental awareness took root as a relevant part of learning, it is now possible to detect the importance of that step. Perhaps most importantly, the general population is much more aware of environmental issues; the newspapers no longer have to define the terms evolution, groundwater, and the greenhouse effect. This increase in general awareness leads to a certain base-level of empowerment, perhaps most dramatically seen in the confusion and fear that underlie the NIMBY syndrome or pesticide panics such as the one over Alar a few years ago.⁶¹

Increased awareness has also allowed for a more specifically informed segment of the population to become effective advocates. "Environmental literacy"—because of the understanding that environmental education is both a useful method to instill important social values in children and an effective vehicle for teaching traditional subjects (*e.g.*, science, history)—is much greater in the younger generation than in the older ones. As environmentally educated children come home to their parents to lecture them on recycling and other pro-environmental practices, they are getting a somewhat informed reception.⁶² Their parents know at least enough to feel guilty about environmentally unsound practices.

But the environment is a teacher of many metaphors. Environmental awareness leads to the recognition that environmental management is a necessary part of humanity's interaction with the Earth. And, as any student of ecological processes will repeat, one natural process cannot be managed

61. In 1989, the Natural Resources Defense Council published a report, *Intolerable Risk: Pesticides in Our Children's Food* that assessed the state of pesticide regulation in the United States. The report was eventually deemed balanced and unbiased, "60 Minutes'" discussion of the pesticide "Alar" initially prompted great fear in apple buyers. See *Auvil v. CBS "60 Minutes,"* 800 F. Supp. 941 (E.D. Wash. 1992).

62. See, *e.g.*, Connie Koenenn, *Now the Kids Are Writing Green Agenda for Parents*, LOS ANGELES TIMES, Feb. 18, 1992, at E1.

without some understanding of all others. Soon, resource management becomes ecosystem management and managing for resource utilization begins to demand a longer time horizon.⁶³ When this happens, the connection between relevant variables and concerns grows to the point it has currently, and cooperation to achieve long-term objectives becomes the only reasonable management strategy. As the delegates at UNCED seemed to understand, sustainable development means coordination of nations' energy and resources to manage global energy and resources.

A world view that acknowledges that long-term resource management is directly tied to environmental education and international cooperation is the basis for an ethic of understanding and compassion. This ethic is both global and personal; it rests on personal actions that make the world a safe and healthful place. This Earth would be one where the need for cooperation is so important as to make tolerance for differences part of a global human ethic. Indeed, it is such an ethic that makes many believe that environmental education, at its heart, is about problem solving. Specifically, the problems focus on how to make humans better care for the Earth's environment. But environmental awareness is generally about solving problems of disharmonious relations, whether they are between two land users or two nations.

V. CONCLUSION

As environmentalists have maintained since the early days of environmental regulation, environmentalism is concerned with more than regulating behavior. It is concerned with redefining the relationship between humans and the environment that sustains them. What began in the early 1970s was a dialectical review of that relationship. The terms of the discussion have shifted rapidly because the banter has been effective. In this respect, success with

63. An example of this broadening of outlook may be found in the "new" philosophy of forest management being championed by a group of foresters inside the United States National Forest Service. See, e.g., Jon R. Luomo, *New Government Plan for National Forests Generates a Debate*, N.Y. TIMES, June 30, 1992, at C4.

respect to environmentalism often is implicated by greater awareness and, ultimately, by shifting values. Twenty years ago, the primary focus of environmental efforts was the abatement of pollution. While various forms of pollution remain a problem, the context of environmental protection has shifted so that resource management is now a fundamental concern of environmentalists. This altered perspective is one of focus. In addition to a concern for cleaning up the litter of the past, modern generations should understand that correcting these problems will mean altering our relationship with resource use. We must realize that environmental issues are about the power that flows from resource control. Therefore, beyond scrutinizing present natural resource consumption, we must institutionalize foresight and prepare future generations to continue the quest for resource equity that we have begun.

While such visions are undoubtedly optimistic goals for a fairly young set of ideals, it is fitting that those who began with the goal of living in an unspoiled world have become those who want to get to the same ends in a peaceful and respectful manner.