

April 1995

Environmental Security, Environmental Management, and Environmental Justice

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Bernard A. Weintraub, *Environmental Security, Environmental Management, and Environmental Justice*, 12 Pace Env'tl. L. Rev. 533 (1995)

DOI: <https://doi.org/10.58948/0738-6206.1441>

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Environmental Security, Environmental Management, and Environmental Justice

BERNARD A. WEINTRAUB*

Table of Contents

I. Introduction	535
II. Characterizing Environmental Security	545
A. The Dynamic of Community Natural Resource Use	546
1. Natural Resources and Governing Bodies	546
a. Control of Natural Resource Management	546
b. Natural Resource Governance	550
2. Formulating a Minimum Quality of Environment	553
B. Community Instability and Environmental Security	554
1. Destabilizing Factors: Why Lack of Natural Resources Causes Insecurity	554

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a. Threats to Environmental Security...	555
b. The Dynamic of Collective Action	556
c. Responses to Environmental Mismanagement.....	558
2. Defining Environmental Security as Part of Defining Identity.....	560
a. Education and Identity.....	560
b. The Relevance of Increased Awareness About Environmental Management Issues	561
III. Intracommunity Aspects of Environmental Security.....	564
A. The Governors and the Governed	565
1. Environmental Racism as an Example of an Intracommunity-Motivated Threat to Environmental Security	567
2. An Environmental Justice	571
B. The Local Community.....	574
C. The Domestic Community.....	578
1. Domestic Environmental Discrimination.	579
2. Threats to National Security	581
D. Refining MQE to Recognize Intracommunity Aspects of Environmental Security.....	583
IV. Intercommunity Aspects of Environmental Security.....	586
A. The Relevance of Environmental Security to Traditional Intercommunity Relations	587
B. Expanding the Description of Environmental Security to Account for Intercommunity Obligation.....	589
1. Why a Basis for Intercommunity Obligation is Difficult to Discern.....	590
2. International Jurisprudence	592
a. Conceptions of International Obligation	596
b. Intercommunity Natural Resource Allocation and Environmental Justice	596
C. An MQE for Intercommunity Relations	599

V. Environmental Security: The Obligation of Global Environmental Management	605
A. Conceptualizing a Global Environmental Community	605
B. Examining the Motivation for and the Rise of a Global Approach to Environmental Management Problems	607
1. The Singular Nature of Global Environmental Management Problems: Why a Coordinated Response is Necessary	607
2. The Basis for a Global Environmental Community	610
3. Modern Global Environmental Equity Theory	614
C. A Comprehensive Theory of Environmental Security	618
1. The Connection Between Environmental Justice and Global Environmental Security	619
2. A Comprehensive MQE	621
VI. Conclusion	622

I. Introduction

As they retreated in January of 1991, Iraqi troops set fire to Kuwaiti oil fields, leaving more than 700 wells burning. They also carried out their threat of befouling the region by intentionally discharging vast quantities of oil into the Persian Gulf.¹ Aside from the many epithets that this behavior

1. The environmental consequences of Iraq's actions were widely reported. See Editorial, *War's Enduring Ecological Scars*, L.A. TIMES, Nov. 8, 1991, at B6; Youssef M. Ibrahim, *Most Oil Fires Are Out in Kuwait, But Its Environment Is Devastated*, N.Y. TIMES, Oct. 19, 1991, at A1; Matthew L. Wald, *Kuwaiti Summer Is Expected to Bring a Foul-Air Disaster*, N.Y. TIMES, Apr. 25, 1991, at A13; Eric Schmitt, *Fouled Region Is Casualty of War*, N.Y. TIMES, Mar. 3, 1991, at 19; *Millions of Gallons of Crude Oil Flow Into Persian Gulf from Kuwait*, INT'L ENVTL. REP. (BNA), at 37 (Jan. 30, 1991); R.W. Apple Jr., *Relentless Tide of Oil Foul's Shores of Empty Saudi City*, N.Y. TIMES, Jan. 28, 1991, at A1. See also Shilpi Gupta, *Iraq's Environmental Warfare in the Persian Gulf*, 6 GEO. INT'L ENVTL. L. REV. 251 (1993). But see Matthew L. Wald, *Just How Bad Is the Air*

prompted, the act was also called ecological or environmental terrorism.² Such a label suggests that the environment has become a pressure point; behavior directed against the environment might be seen as a threat to the security of the people or political entities associated with that environment.³ The existence of concern for "environmental security" is a reflection of the increasingly important role that environmental management⁴ plays in modern political relationships. The primary objective of this article is to explore the concept of environmental security and to discuss how that concept informs peoples' changing relationship with the Earth.

This is not an easy task because many terms important to such a discussion are poorly defined. For example, despite the frequency with which the word is used, it is far from obvious what is meant by "environment." In current usage, the term denotes the object of protection, a subfield of law, a type of education, and an entire movement. In the early days of the modern environmental movement,⁵ the focus of environ-

Over Kuwait?, N.Y. TIMES, July 7, 1991, at E4; Marlise Simons, *British Study Disputes Lengthy Climatic Role for Kuwait Oil Fires*, N.Y. TIMES, Apr. 16, 1991, at C4.

2. See, e.g., Roy Popkin, *Responding to Eco-Terrorism*, EPA J., Jul.-Aug. 1991, at 23; *Member of U.S. Senate Says Iraqi Leaders Should Be Prosecuted for Despoiling Gulf*, Int'l Env'tl. Rep. (BNA), at 143 (Mar. 11, 1992); Rae Tyson, *Kuwait: Nightmare of Ecological Terrorism*, USA TODAY, Apr. 22, 1991, at 6E.

3. Increased awareness of the ramifications of large-scale, often intentional, environmental degradation has catalyzed a discourse in the political results of such occurrences. See, e.g., Thomas Homer-Dixon, *Destruction and Death*, N.Y. TIMES, Jan. 31, 1993, at E17; *Morning Edition: Environment Now International Issue* (National Public Radio radio broadcast, June 1, 1992); Catherine Tinker, *Symposium: Environmental Rights and International Peace: "Environmental Security" in the United Nations: Not a Matter for the Security Council*, 59 TENN. L. REV. 787 (1992); Michael Oppenheimer, *From Red Menace to Green Threat*, N.Y. TIMES, Mar. 27, 1990, at A27; Michael Colby, *WORLD BANK ENVIRONMENTAL MANAGEMENT IN DEVELOPMENT—THE EVOLUTION OF PARADIGMS* 31 (1990); Flora Lewis, *Environment Is Security*, N.Y. TIMES, May 24, 1989, at A31.

4. In this article, "environmental management" refers to a community's support of a given standard of living through attaining, protecting, enhancing, and allocating its natural resources. The process of management, therefore, must include an understanding of the identity of the community. See discussion *infra* part II.

5. Many dates vie to be designated the beginning of the modern environmental movement. These include: the publication of Rachel Carson's *SILENT*

mental protection was the so-called "natural environment."⁶ That is, environment referred to a vision of a pristine Earth, presumably before it was spoiled by human activity.

However, there is a more profound understanding of environment. This is what the delegates to a United Nations conference in 1972 called the "Human Environment."⁷ The report from that conference recognized that: "[b]oth aspects of . . . [the human] environment, the natural and the man-made, are essential to . . . well-being and to the enjoyment of basic human rights."⁸ This concept of environment envisions humans as both the primary beneficiaries and ultimately the injured parties of human exploitation of the Earth. Even though the message is often buried,⁹ the underlying tenet of much thoughtful work in environment management is the recognition that the environment is more than an entity sep-

SPRING in 1962; the adjudication of *Scenic Hudson Preservation Conf. v. Federal Power Comm'n*, 354 F.2d 608 (2d Cir. 1965); the convening of the Intergovernmental Conference of Experts on the Scientific Basis for Rational Use and Conservation of the Resources of the Biosphere by the United Nations in Paris, in September of 1968; and the passage of the National Environmental Policy Act of 1969, Pub. L. No. 91-90, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4370d) (1994). I date the movement generally from its first substantive policy manifestations in the late 1960s.

6. For example, the declaration of policy at the beginning of the National Environmental Policy Act of 1969 states that:

[t]he Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government . . . to create and maintain conditions under which man and nature can exist in productive harmony

42 U.S.C. § 4331(a) (1994).

7. Declaration of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14/Corr. 1 (1972).

8. *Id.* at ¶ 1.

9. Such references are often buried in the nonbinding language of a preamble or, occasionally, in a legal instrument. See, e.g., World Charter for Nature, U.N. Doc. A/Res/37/7 (1982); United Nations Convention on the Law of the Sea, Preamble, U.N. Doc. A/CONF.62.122 (1982); Clean Air Act, 42 U.S.C. § 7401(a)-(c) (1994).

arate from human existence;¹⁰ it is a label for a complex relationship between people and the Earth.

This complexity may be better understood by reviewing the basis of that relationship. People approach their relationship with the Earth as members of one or more communities, and the medium of this relationship is often described as "natural resources." A community¹¹ is a group of people bound together primarily by a common recognition of, and preference for, the existence and goals¹² of the community in question, and, consequently, by the desire for the community to continue.¹³ Those communities that play a large role in environmental management—primarily political communities, such as those overseen by political governments—are the ones most important to this article.

A natural resource is a portion of the Earth that contributes to the continued existence of a community. That is, natural resources are Earth-derived substances from which many aspects of a community's identity are distilled. Such resources help to define community life by providing the substance upon which community members base their careers, interests, and passions.¹⁴ Without these natural resources

10. Criticizing modern culture, Wendell Berry has recognized that: "[o]nce we see our place, our part of the world, as surrounding us, we have already made a profound division between it and ourselves." WENDELL BERRY, *THE UNSETTLING OF AMERICA: CULTURE AND AGRICULTURE* 22 (1977).

11. While I am aware that the concept of community comes with much theoretical baggage, see, e.g., ROBERT A. NISBET, *THE QUEST FOR COMMUNITY* (1953); Vernon Van Dyke, *The Individual, the State, and Ethnic Communities in Political Theory*, *WORLD POLITICS* (Apr. 1977), at 343; I plan to use it loosely, but not irreverently.

12. The goals of a community might be broad (e.g., a political government's goal might be to provide security and a certain quality of life) or narrow (e.g., a local property owners' organization might be a community entirely devoted to promoting local zoning regulations). An individual might be a member of many communities, each devoted to the promotion of certain goals.

13. By emphasizing the community's drive for survival, I do not mean to pass judgment on, or indeed to suggest anything at all about, the appropriateness of the unique traits, history, and immediate goals of a specific community. The community's identity is important as an aspect of environmental security. See discussion immediately following and *infra* section II.B.

14. For example, petroleum is a natural resource for most modern communities. To some communities, access to arable land is also a natural resource. Some communities might define the presence of natural vistas or access to wil-

the community fails to be the entity that it conceives itself to be.¹⁵

This definition informs the discussion of environmental security in at least three ways. First, natural resources are community specific. While many communities might share a desire for a given natural resource (*e.g.*, petroleum), the set of natural resources that reflect a given community's identity are as unique as that identity. Thus, the reliance on a natural resource on which I hang this definition is a broad one. To rely on natural resources only means that lack of access to the natural resource will be perceived by the community members as a hardship because the community will fail to meet the promise of its identity.¹⁶

Second, the substances that a community defines as natural resources may or may not originate within the parameters of a given governing body's control. This definition of natural resource is, therefore, unlike that of common usage whereby an earth-derived substance becomes a natural resource based on ownership.¹⁷ The definition used here char-

derness to be a natural resource; some others might not value these aspects of living on the Earth. Certain communities might believe proximity to healthy forests to be a natural resource; others might not.

15. While there may be natural resources that are widely understood to be such (*e.g.*, petroleum), this is simply an artifact of a near global desire for the substance. To the various groups of people that still exist that have no need for petroleum or its products, that fossil fuel is not a natural resource.

16. A distinction needs to be made here between the community's obligation to its collective identity and its obligation to individual community members. Each community's identity includes a conception of the natural resources to which it must ensure access. This conception probably does not include an obligation to meet the natural resource desires of each community member. For example, a community might consider lumber a natural resource to which it ensures access. However, if a wood carver desires wood from a special tree, the community is not obligated to ensure access to that wood unless it perceives itself to be a community that supplies such wood to members who are wood carvers. If the community does not so define its identity, then the special wood would not be a natural resource to that community (while it might be a natural resource to the community of wood carvers that does not seek to ensure access to the wood).

17. In common usage, a commodity is not a natural resource to the community that must purchase it; to that community the substance is but a desired item that can be purchased, or perhaps even a necessity. Therefore my definition of natural resources is both broader (*i.e.*, because it includes those sub-

acterizes substances as natural resources based on the community's desire to tie its identity to reliance on that substance. That is not to say that normal economic relationships fail to hold; the desire of a community to define the substance as a natural resource almost ensures that the substance has economic value.¹⁸

Third, a governing body's power is tied to natural resources. The governing body is responsible for ensuring natural resource management to the extent dictated by the community's identity. Therefore, and especially because access to natural resource use might not be entirely controllable by a governing body,¹⁹ the governing body is particularly beholden to community members' perception of the community's identity. Influencing that perception might be the governing body's most effective method of maintaining its legitimacy.²⁰

As was mentioned above, the term environment is often used to describe some vague notion of the "natural" world that is somehow better than our own. This usage fails to recognize that the concept of environment is a human construct; it implies a continuing human relationship with the Earth.²¹ Indeed, the parts of the planet that are the focus of environ-

stances that a community has to import) and more narrow (*i.e.*, because it does not include community-originating natural substances the presence of which are unrelated to the community's identity) than the traditional, property-based definition.

18. Unless the substance is found within the community that defines it as a natural resource in unlimited quantities, the substance will have economic value. For example, in many communities around the world breathable air would be considered a natural resource that does not have a cost. However, as such air becomes more scarce, it does gain economic value. In the United States, the cost of implementing environmental regulations, such as the Clean Air Act, 42 U.S.C. § 7401 (1988), to maintain clean air, effectively transforms breathable air into a natural resource with economic value.

19. See discussion *infra* section II.A.1.

20. That is, because the governing body might not be able to always ensure the proper management of natural resources, it may try to retain its support by attempting to alter the community's identity, in effect trying to convince the community members that the "new" identity is one that is more in line with one defined by the natural resources that the governing body can control. See discussion *infra* section II.A.1.b.

21. See also discussion *infra* section II.B.1.b. regarding the alienation that accompanies human dissociation from the Earth.

mental management primarily are those parts that are perceived to have some value to humans.²² Following from the definitions of "community" and "natural resources," the word "environment" here refers to the totality of natural resources. The environment of a given community will be community-specific to that community's natural resources.²³ Stated another way, there is no environment without a community to so define it; the operation of abiotic and nonhuman biotic forces on the Earth is best described within the context of ecology (the subject matter of this science being ecosystems not environments). Furthermore, because natural resources are defined, in part, as necessary components of a community's identity, a community's environment similarly may be understood to be an extension of a community's perception of

22. This is not to say that "value" here must be determined in a traditionally economic sense. There is a growing discourse on valuing the environment which relies on traditional, as well as nontraditional indicators. See, e.g., J. Baird Callicott, *Rolston on Intrinsic Value: A Deconstruction*, 14 ENVTL. ETHICS 129 (1991). Indeed, economists have devised a number of methods for valuing the natural resources that are poorly assessed by market forces. The most easily understandable group of such methods are those that measure "use value." The methodologies proposed to assess use value rely on surveys of revealed or unrevealed preferences; from such information a demand curve can be constructed. Examples of these methodologies include: travel cost methodology, see Robert W. Hahn & James A. Hird, *The Costs and Benefits of Regulation: Review and Synthesis*, 8 YALE J. REG. 233, 261 (1991); hedonic cost methodology, see *id.* at 259; various contingent value methodologies, see Robert C. Mitchell & Richard T. Carson, *Using Surveys to Value Public Goods: The Contingent Valuation Method*, 42 VAND. L. REV. 315-20 (1989); and extrapolation from employment and other demographic statistics. "Nonuse values" include the values that the consumer would expend for environmental amenities that she or he has no (or little) intention of ever using. Examples of nonuse value include: existence value, see Michael B. Saunders, *Valuation and International Regulation of Forest Ecosystems: Prospects for a Global Forest Agreement*, 66 WASH. L. REV. 871, 876 (1991); option value, see Britt Anne Bernheim, *Can We Cure Our Throwaway Habits By Imposing True Social Costs on Disposable Products?*, 63 U. CAL. L.R. 953, 963 (1992); and bequest value, see Duane Woodward & Michael R. Hope, *Natural Resource Damage Litigation Under the Comprehensive Environmental Response, Compensation, and Liability Act*, 14 HARV. ENVTL. L. REV. 189, 205 (1990).

23. And, because communities often overlap, so might an individual's environments. For example, a person who is a member of a religious community in a municipal community interacts with at least the two environments associated with those two communities (i.e., the religious environment and the municipal environment).

itself. Complicating things, while the desire for a community-specific environment is in part created by a community's unique experience, this does not mean that the community's perception of a desirable environment might not shift with the evolution of the community.²⁴ Indeed, because the quality of environment is so tied to communication and values that might shift rapidly, "environment" must be understood to be a dynamic concept, a dynamic that might be difficult for a governing body to anticipate, perceive, and answer.

It follows that environmental management should be understood to be a euphemism for the range of obligations a community undertakes to attain, protect, enhance, and allocate its natural resources in accordance with its identity. That is, environmental management is the part of a community's identity that describes a community's commitment to managing natural resources. Because managing natural resources to a large extent includes ensuring that community members have access to natural resources, environmental management might well include the governing body's undertaking of intercommunity relationships.

An objective of modern society—which I discuss in terms of communities—is to manage natural resources effectively.²⁵ This article discusses what happens when a community fails at this task. I posit that when the members of a community perceive that natural resources are not being managed in a community-appropriate manner, either the community's identity or its governance (or both) might be altered by the resulting social instability.

There is a minimum level of access to environmental amenities that must be maintained before a community will feel assured that the governing body is fulfilling its environmental management obligations. If this quality of environment is not maintained, the community may become destabilized, and seek to alter the governing circumstances. This minimum level of access to environmental amenities

24. These shifts may occur passively (*e.g.*, certain shifts accompanying economic growth) or they might be active (*e.g.*, when a governing body promotes a certain standard of living as being appropriate for the community).

25. See discussion *infra* part II.

will be described as a "minimum quality of environment" (MQE). The definition of MQE will be constructed sequentially throughout this article, ultimately maturing into a single fully articulated definition of MQE.

A few things should be clarified about the definition of MQE. MQE is not meant to be a per capita formula, regardless of the fact that it could be stated that way.²⁶ The definition of MQE is in aggregate form to emphasize that communities are defined by their identity; the size of the population alone fails to indicate either the heterogeneity of community members' needs or the community's stage of economic development. Furthermore, the definition is not only descriptive, it is aspirational. MQE suggests that as a community, the people collectively expect that certain amenities are part of their community's social contract. To this extent, MQE stresses that a community's identity is intricately bound up in a unique relationship between history and natural resource use. Finally, because it indicates a quality of environment that the members of the community expect, MQE is a standard that the governing body feels obligated to recognize. Thus, MQE is a normative standard, often influencing the relationship between community members and the governing body.²⁷

Using this MQE as a guide, a community can establish and maintain its environmental management policies. A governing body can succeed in providing environmental security and stability by acknowledging, and making policy decisions,

26. For example, one could express MQE by dividing the cost of the environmental management necessary to achieve it by the number of members of that community.

27. The concept of MQE, however, is not claimed to be a wholly conscious or advertised image of the community-defined standard of living. Although, of course, it may have conscious and advertised components. For example, open space on which to build a home was at one time considered a natural resource of the United States that that community accepted as part of its heritage and responsibility to its members. See CONSTANCE PERIN, *EVERYTHING IN ITS PLACE: SOCIAL ORDER AND LAND USE IN AMERICA* 32-77 (1977). See also Lance Morrow, *Downsizing the American Dream*, *TIME*, Oct. 5, 1981, at 95; Leonard S. Rubinstein & Elizabeth Trosman, *Affirmative Action and the American Dream: Implementing Fair Housing Policies in Federal Homeownership Programs*, 74 *Nw. U.L. REV.* 491 (1979).

based on the amount and type of environmental management implicated by the MQE.

The relationship between community identity and environmental management is a subtle but important one, reflecting the interface of community goals and governing philosophy. The manner in which a community defines its obligations toward individuals (both community members and those nonmembers that are affected by the community's policies) is an important aspect of the community's identity. Individuals, alone or in groups, that feel they are not receiving appropriate treatment from a community—in this case, not benefitting from environmental management in a way consonant with the community's identity—are apt to contribute to community instability.²⁸

Such an understanding of environmental management suggests that it is impossible and misleading to separate environmental management from concepts of justice. While justice in the environmental context will be discussed in greater depth below, a few words of introduction must be said here. The discussion in this article will focus on justice as it relates to community members' ability to attain a minimum quality of environment. It is not my aim to judge the appropriateness of the specific governing philosophy of a community; I hope only to show how inconsistencies between expectations and practice may lead to community instability, thus posing a threat to environmental security.

Furthermore, defining natural resources in a way that allows origination outside of the political boundaries of a community raises difficult questions of intercommunity obligation and, ultimately, intercommunity justice. Should a modern understanding of environmental management include an obligation to help manage the natural resources originating within the political jurisdiction of another community? I will argue that an environmentally-based concept of justice necessitates that communities, in some situations, should help other communities to manage not only jointly de-

28. See discussion *infra* section II.B.1.

sired natural resources, but even ones for which the first community has no direct need.

The connection between environmental management and justice is but one of the complexities that undergird any description of environmental security. Current policy initiatives at all levels of governance recognize that many environmental management problems²⁹ will necessitate responses that integrate concerns about justice into more traditional regulatory schemes.³⁰

This article attempts to determine whether there can be a description of environmental security that will recognize both the unique qualities of different communities as well as the inherent connections between them. I will describe a single theory because it is my belief that with respect to certain environmental management dilemmas, the world should be treated as a single community; discrete responses to such dilemmas will fail to include the complex political and social responses that are necessary to ensure effective environmental management. Furthermore, a unified theory of environmental security will help to facilitate environmental management that recognizes and promotes environmental justice.

II. Characterizing Environmental Security

The ability to ensure access to an uninterrupted supply of petroleum for its citizens and businesses is an important part of the United States' identity. When the Iraqi forces invaded Kuwait and threatened to take over the vast Saudi Arabian oil exporting capacity, the United States reacted decisively to stop the assault. The motivation for the United States' response in the Persian Gulf was the threat represented by an unacceptable attempt to gain control over natu-

29. The term "environmental management problem" is used in this article instead of the more commonly employed "environmental problem" because the latter dissociates humans from their causative role.

30. See, e.g., Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order No. 12,898, 59 Fed. Reg. 7629 (1994); *The Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev.1 (1992) [hereinafter *Rio Declaration*].

ral resources. While this threat may be understood either as a direct threat to the U.S. standard of living or as a threat to international norms for maintaining access to natural resources, or both, the ramification of the threat was that the governing body of the United States ultimately felt it necessary to go to war to respond to the challenge.

A. The Dynamic of Community Natural Resource Use

While the term will be more formally defined below, environmental security, as used in this article, refers to a community's state of assurance that its stability as a community will not be threatened by a lack of proper management of the natural resources it deems to be necessary parts of its identity—the community's specific cultural, historical, and philosophical context within which the community defines itself. Such a concept rests on the assumption that each governing body is accountable to the community as a whole for the sort of environment dictated by the community's identity. A threat to environmental security comes from the inability of a governing body to ensure this desired quality of environment.

1. Natural Resources and Governing Bodies

The maintenance of environmental security is associated with the governing body's ability to be perceived by the community as ensuring the quality of environment implicated by its community-specific identity. Thus, the governing body is pressed between a need to assure the community of its ability to make natural resources available and the possibility that it will not be able to provide such resources. The necessary balance of these pressures may be disturbed from both sides. Forces uncontrollable or uncontrolled by the governing body might disrupt community environmental management, and the community may begin to doubt the governing body's ability to ensure the necessary quality of environment.

a. Control of Natural Resource Management

Ensuring the community-appropriate quality of environment might be a difficult task. For many reasons the gov-

erning body might be unable or unwilling to control natural resources in a way that the community perceives as consonant with its identity. Specifically, the governing body must be wary of potential intercommunity and intracommunity obstacles to its own control.

When a community imports natural resources from foreign communities,³¹ the governing body's ability to control the resource is limited. The logistical problems of getting the natural resources to the community's borders³² are frequently out of the governing body's control. The source community may not have the infrastructure, political stability, or institutions³³ necessary to reliably export the natural resources. Also, intercommunity forces external to the recipient community may interrupt intercommunity natural resource flow. For example, a war between two communities might effectively make both of them unable to complete natural resource exportation to a third party community,³⁴ or the

31. The term "foreign community" is used here to describe a community that is other than the one in question. It is not meant as a description of the community's geographic relationship or of the nature of the foreign community's identity.

32. Intracommunity transportation of natural resources may also pose logistical problems for the governing body. See, e.g., *infra* notes 35-39 and accompanying text.

33. A natural resource in one community will not be available to other communities if the originating community lacks the institutional ability to export it. For example, community-specific norms that function to regulate intracommunity behavior may be less rigidly followed in the international context. See Anthony D'Amato, *Is International Law Really "Law"?*, 79 NW. U. L. REV. 1293 (1985); Louis Henkin, *The Politics of Law Observance*, in *HOW NATIONS BEHAVE* (2d ed., 1979). This may lead to the situation where a natural resource originating in one community is not traded because it does not meet the quality, processing, or handling standards of the potential importer. See, e.g., Carl Pope, *Don't Trade Environment*, USA TODAY, Nov. 30, 1993, at 10A. See also Dan Izenberg, *Knesset Rejects NRP Move to Ban Import of Nonkosher Meat*, JERUSALEM POST, Jan. 13, 1994, at 4.

34. Even if such exportation is not physically impossible, there might be political reasons why such natural resource flow would be disrupted. For example, in an effort to force the military government of Haiti to allow the restoration to power of the democratically-elected government of President Aristide, on May 21, 1994, a year-old United Nations embargo against Haiti was stepped up to cover the trade of all commodities except food and medicine. Steven Greenhouse, *U.S. Shifts Stress to Haiti Sanctions*, N.Y. TIMES, June 9, 1994, at A3; Howard W. French, *Haiti Military Braces for Total Embargo*, INT'L HERALD

trade of a natural resource may be interrupted by a natural disaster.³⁵

A community may not be able to engage effectively in intercommunity natural resource trade because of large economic disparities in wealth between the communities.³⁶ The difference in economic strength might be so great that the community desiring the natural resource cannot afford the price of the substance originating in a relatively inflated economy.³⁷ Even though less affluent communities may argue that they have a moral claim to natural resources despite an inability to pay for them,³⁸ this argument does not always

TRIB., May 24, 1994; *Clinton Issues Executive Order Implementing U.N. Haiti Embargo*, Daily Rep. for Executives (BNA), at A88 (May 10, 1994).

35. For example, the 1993 flooding of the Mississippi River made obtaining food and other supplies extremely difficult for local residents. See, e.g., Edward Walsh, *Where Two Great Rivers Come Together, Flooded Town Hangs On*, WASH. POST, July 30, 1993, at A3; Jeremy Campbell, *Floods Create a Sixth Great Lake; Rains Kill 410 in India*, EVENING STAND., July 19, 1993, at 6.

36. See generally discussion *infra* section IV.B.2 and part V regarding the obligation of industrialized communities to aid less-industrialized communities with respect to environmental management.

37. Within the context of natural resource management, large disparities of wealth between countries is often associated with the concept of neocolonialism. Theorists of neocolonialism suggest that even after many less-industrialized countries have gained their independence, the industrialized countries continue to control their economies through economic means. ROBERT W. TUCKER, *THE INEQUALITY OF NATIONS* 68 (1977). The motivation for this control supposedly includes the desire of the industrialized nations to maintain access to inexpensive, poorly protected natural resources, without which the industrialized economies would stagnate. The 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. See generally ROBERT W. TUCKER, *THE INEQUALITY OF NATIONS* (1977); WARNER MAX CORDEN, *THE NIEO PROPOSALS: A COOL LOOK* (1979); PAUL M. WATSON, OVERSEAS DEVELOPMENT COUNCIL, *DEBT AND THE DEVELOPING COUNTRIES: NEW PROBLEMS AND NEW ACTORS* (1978). The results of neocolonialism are 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. 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). See also *infra* note 199.

38. The claim that less-developed countries either deserve or are owed aid in acquiring or developing natural resources is often related to the various negative attributes associated with disparities in wealth between countries. See *supra* note 33. See also discussion *infra* section III.A. Beyond the documents

translate into real policy changes.³⁹ Such disparities leave poorer communities particularly vulnerable to environmental degradation and ultimately to instability.⁴⁰

Whether natural resources originate within a community or not, the governing body must get the natural resources to the expectant community members.⁴¹ This task may be difficult to accomplish. To affect intracommunity environmental management, the community must develop transport lines or local refining capability. Such projects at least necessitate communication skills and technology, access to capital,⁴² and

and arguments that were first propounded in relation to the New International Economic Order, *see sources at id.*, these arguments are also visited in scholarly journals. *See, e.g.,* Bernard P. Herber, *The Common Heritage Principal: Antarctica and the Developing Nations*, 50 AM. J. ECON. AND SOCIOLOGY 391 (1991); Daniel B. Magraw, *Legal Treatment of Developing Countries: Differential, Contextual, and Absolute Norms*, 1 COLO. J. INT'L ENVTL. L. AND POLICY 69 (1990); A. Kuflik, *Allocation and Ownership of World Resources: A Symposium Overview*, 23 J. VALUE INQUIRY 249 (1989); B.A. Singer, *An Extension of Rawls' Theory of Justice to Environmental Ethics*, 10 ENVTL. ETHICS 217 (1988).

39. For example, despite the attention focused on and enthusiasm to confront the concerns of less-industrialized countries with respect to the nexus between economic development and environmental protection displayed at the United Nations Conference on Environment and Development, held in Brazil in June of 1992, currently there is concern that the conference's progressive "Agenda 21" has been largely unrealized. *See More Action Said Needed to Blend Environmental Protection, Development*, Int'l Env't Daily (BNA) (June 2, 1994). However, some modern international environmental law instruments do begin to address the injustices that are associated with historically-based disparities of wealth between nations and these disparities' effect on environmental management. 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 deadlines, as well as support for technology transfer and funding mechanisms. *Id.* at 1555.

40. *See generally* Philip Shenon, *Now It's the Jungle That the Khmer Rouge Decimates*, N.Y. TIMES, Feb. 7, 1993, at 4; Thomas Homer-Dixon, *supra* note 3; Sylvia Nasar, *It's Never Fair to Just Blame the Weather*, N.Y. TIMES, Jan. 17, 1993, at E1. *See also* discussion *infra* section II.B.

41. That is, if it is to succeed in its obligations as a governing body. *See* discussion *infra* section II.B.1.

42. The start up costs of environmental management facilities are frequently quite high. For example, the expense of facility start up compounds already difficult management decisions regarding municipal solid waste disposal. *See* Bernard A. Weintraub & John Rousakis, *Packaging, Environmentally*

the capability to engage in coordinated planning.⁴³ Furthermore, the natural resource in question might be expensive; relative to the importance of the natural resource and the constituency desiring it, the governing body might feel unable to subsidize or ration the commodity.⁴⁴ While the governing body in power may not be responsible for the lack of community economic and technical strength,⁴⁵ the members of the community might well hold it accountable anyway.

There might be reasons why a governing body, regardless of cost, would be unwilling or unable to make natural resources available to members of its community. Natural resource management decisions reflect political will. A governing body might be less responsive to the desires of some members of a community than others.⁴⁶ Such selectivity may be reasonable within the context of a certain community's identity.⁴⁷ If it is not, environmental security may be threatened.⁴⁸

b. Natural Resource Governance

As the preceding discussion suggests, the environmental security of a community is correlated to the governing body's control over environmental management. Pressure on the governing body to ensure a certain quality of environment

Protective Municipal Solid Waste Management, and the Limits to the Economic Premise, 21 *ECOLOGY L.Q.* (forthcoming 1994).

43. Many of the same logistical problems that exist in the intercommunity context are also obstacles to intracommunity natural resource flow. *See supra* notes 25-29 and accompanying text.

44. The extent to which the governing body is willing to subsidize or ration the use of natural resources is a reflection of that body's balancing of its role as ensurer of access to natural resources with its need to ensure that access at a cost that is reasonable to the community as a whole. For example, there is currently a debate within the United States regarding whether subsidizing grazing rights for ranchers is beneficial or detrimental to the overall well-being of the United States. *See infra* notes 81-83 and accompanying text.

45. These deficiencies might have been caused by mismanagement by previous governing bodies or by unanticipated events that the current governing body cannot control. *See, e.g., supra* notes 28-29.

46. This discrimination might be overt, or it might be institutionalized within the governance of the community. *See discussion infra* section III.A.

47. For examples, *see infra* notes 81-86 and accompanying text.

48. *See discussion infra* section III.A.

and the responses to those pressures may be grouped into intracommunity-motivated and intercommunity-motivated threats to environmental security; these threats will be explored in more depth in parts III and IV below. It will suffice here to suggest that there are two ways that a governing body might attempt to minimize the potential for community instability precipitated by its lack of control.

The first is that the governing body may seek to cast itself in a favorable light with respect to ensuring the community-specific quality of environment. While it is beyond the scope of this discussion to analyze the methods with which a governing body might accomplish this, some techniques include attempting to convince community members that their expectations with respect to environmental management are inappropriate,⁴⁹ arguing that environmental needs are being met but that the community members do not realize it,⁵⁰ and suggesting that the governing body had provided the appropriate quality of environment, but that some other uncontrollable force is responsible for undermining those efforts.⁵¹

Because the threats to many of a community's natural resources come from foreign communities and third party pressures, the second way in which a governing body will seek to maintain a given quality of environment is to strengthen intercommunity relations. For example, the governing body of New York might want to ensure the flow of certain natural resources that are produced on the west coast of the United States. To do this it engages in interstate commerce, thus participating as an actor in the broader community of the United States. Similarly, the governing body of

49. Or, in the terminology adopted below, that the "minimum quality of environment" is inappropriate. See discussion *infra* section II.B.

50. For example, the government might represent that, if allowed, it would ensure access to a reasonable amount of the desired natural resource. However, community members demanding the natural resource are demanding more than that for which those members are proportionately willing to pay, and thus the governing body is acting in the best interests of the whole community by not subsidizing the natural resource.

51. For example, the governing body might represent that it would ensure access to the desired natural resource, if not for a natural disaster that has made that task impossible.

Thailand might attempt to maintain access to natural resources originating in Indonesia; to solidify this trade Thailand might contract directly via either traditional bilateral negotiations, or might participate in a regional multilateral regime such as that delimited by the Association of Southeast Asian Nations,⁵² both of which would be tantamount to participating in a second, broader governance structure that facilitates the trade amongst component communities.

In a sense, then, it is often in each community's, and thus each governing body's, best interest for there to exist some type of transcommunity, natural resource trade federation in which a larger governing structure has an interest in maintaining intercommunity natural resource flows.⁵³ Beyond the obvious benefit of allowing governing bodies to strengthen their assurances of a given quality of environment to their community members, federations have other positive aspects. Because the trade regime would be a community itself, the governing body of the trade regime would seek to maintain its own legitimacy by supporting the relationships between its component communities. Furthermore, as James Madison emphasized in *The Federalist* No. 10, a properly structured federation may allow proper representation in governance without trampling on the rights of those who are not of the majority.⁵⁴ Therefore, a well-constructed, representative natural resource trade federation would be able to respect the

52. The Association of Southeast Asian Nations (ASEAN) was initiated by the Bangkok Declaration, Aug. 8, 1967, 6 I.L.M. 1233. The association is comprised of Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

53. Of course, such federations already exist. For example, the General Agreement on Tariffs and Trade (GATT), the North American Free Trade Act (NAFTA), and even the European Union all were conceived and initiated as attempts to facilitate freedom of trade between various parties.

54. JAMES MADISON, *Federalist* No. 10 (1788), reprinted in ALEXANDER HAMILTON ET AL., *THE FEDERALIST* 53-62 (Modern Library 1937). As Madison wrote, "the majority . . . must be rendered, by their number and local situation, unable to concert and carry into effect schemes of oppression." *Id.* at 58. Madison believed that the ills of democracies were based on "factionalism"—the tendency for people to form groups that are intolerant of those not within the group. *Id.* at 54. If such a group were to gain dominance, it could systematically oppress those in the minority.

needs of all of the represented communities,⁵⁵ as well as provide collective governance.

2. Formulating a Minimum Quality of Environment

The environment that a community demands reflects the community's perceptions of its right to a certain standard of living. Because this expectation is in part historically derived,⁵⁶ the expected environment might not be the one that a given governing body would like to acknowledge. For example, the community might support a quality of environment more costly to achieve than that which the governing body feels the community can afford or that which the governing body wishes to promote.⁵⁷ In this case the governing body may find itself in a position where it must choose whether or not to make natural resources available in order to maintain its legitimacy, regardless of the political, social or economic cost of such an enterprise. This political decision, of course, is complicated by the shifting parameters of the environment which must be managed. Recognizing the complex relationship between the community's natural resource requirements, and the ability and will of the governing body to make those natural resources available, a minimum quality of environment (MQE) may be defined as *the amount and type of benefits of environmental management that must be maintained for a given community to maintain its identity.*

55. Madison did not foresee that factions might form across state boundaries. Nonterritorial bases of intolerance were not addressed until the Reconstruction Amendments to the United States Constitution, which sought to strengthen further the federal government in an effort to ensure that people were not oppressed because they were not members of the policy-setting majority.

56. That is, based on the historical performance of the community's governing body and economy.

57. There are many reasons why this might come about. It might be that the community previously enjoyed a quality of environment that it cannot presently sustain because of economic hardships. In this case, the governing body might fear inflated expectations. Or, the community's priorities—and thus demanded quality of environment—might shift with information regarding other communities or with respect to newly perceived needs of the community (e.g., upon publication of a study that inversely relates a child's access to wilderness with later adult criminal activity, the community may make accessible wilderness a higher priority).

Environmental security is the stability a community experiences when the governing body succeeds in providing at least the amount and type of environmental management implicated by the MQE. Environmental security concerns arise when a governing body fails to manage the community's environment in a way consonant with the community's identity as reflected in the community's MQE. Discriminatory policies of the governing body, poor development of intracommunity allocation methods, ineffective or subversive intercommunity relations, changing expectations of the community, and external factors may all be threats to environmental security.

B. Community Instability and Environmental Security

1. Destabilizing Factors: Why Lack of Natural Resources Causes Insecurity

The assertion that community instability results from a governing body's inability to ensure a certain quality of environment appears to follow an assumption that the contentment of community members is correlated to the security of the community as a whole. However, even if this assertion is true, it could be argued that because some members of a community might have greater access to political control than others, only those "powerful" members of society need to benefit from the MQE. Thus, the argument might continue, for a governing body to maintain control for a minimal cost, it need only ensure the MQE of the "powerful" community members.

However, while it might be true that certain people or groups within a community have a greater ability to destabilize a community than do others, it is not clear that these "weaker" populations are unable to affect community stability. Indeed, it could be argued that community security is rarely upset by those with the greatest access to power. Furthermore, the legitimacy of the governing body may not be based solely on the consent of the powerful.⁵⁸ And, regard-

58. At least that is the premise of most modern governments. *See generally* THOMAS FRANCK, *THE POWER OF LEGITIMACY AMONG NATIONS* (1990); MAX WEBER, *THE THEORY OF SOCIAL AND ECONOMIC ORGANIZATION* (A. M. Henderson & Talcott Parsons trans., 1947).

less of the precise share of power that each community member enjoys, it may be argued that a vision of environmental security that includes norms of justice demands that the community strive to define an MQE that reflects the needs of all community members.⁵⁹

a. Threats to Environmental Security

Threats to environmental security occur when a governing body fails to ensure access to natural resources at the level represented by the community's MQE. Such threats might occur in many different ways. As suggested above,⁶⁰ physical access to natural resources might be threatened directly by intracommunity and intercommunity conditions. In this type of situation, community members may be shown that the governing body does not have effective control of environmental management.

Other uncontrollable or uncontrolled occurrences might also serve to weaken the community's belief that the governing body has the ability to ensure its MQE. Foreign or domestic groups might influence or challenge the community's perception of its needs.⁶¹ If this influence succeeds, the MQE might well change. Such a shift in the standard against which the governing body will be judged might catch the governing body by surprise, making it look unresponsive or incapable of ensuring the newly required level of environmental management. Similarly, foreign or domestic groups might directly challenge the ability of a governing body to effectively manage its environment. To the extent that community members believe that their governing body is so unable, the environmental security of the community is threatened.

59. See discussion *infra* section III.A.2.

60. See discussion *supra* section II.A.1.a.

61. One example of the result of this dynamic is the social disruption that German unification has unleashed. While some of the cause of the agitation is purely the result of startled economic markets, much is the result of the altered expectations of both East and West German citizens with respect to what they believe they are owed by the new German government. See Tyler Marshall, *New Wall Divides Germany; This One Is Emotional and Social, Not Physical*, L.A. TIMES, June 16, 1991, at A1.

b. The Dynamic of Collective Action

Threats to environmental security are, of course, one way of describing a governing body's concern about discontent. Every governing body understands that the inability to obtain the natural resources that are necessary to pursue a career, to maintain a healthful life, or to provide a minimum level of healthful existence to one's family, challenges each community member's respect for the governing body. While the individual's needs might be met in other ways by the relevant governing body (e.g., through direct or indirect financial assistance), such social benefits are a poor substitute for individuals being able to obtain environmental benefits directly at some community-defined minimum level. Thus, MQE represents a standard below which an individual might well feel that she or he is living a life deemed of less than minimum significance by the community as a whole.

The consequences of governance failure to provide for community members' needs—natural resource needs or otherwise—has been a subject of scholarly discourse at least since the time of Machiavelli. In the nineteenth century Karl Marx described the dynamic of social change as being correlated to individuals' alienation from the societies in which they existed.⁶² According to this theory, alienation occurs when people do not have the ability to control their own lives and futures within the context of their communities.⁶³ While it might seem a stretch to suggest that alienation in modern society is a result of the lack of a certain quality of environ-

62. KARL MARX, *THE ECONOMIC AND PHILOSOPHICAL MANUSCRIPTS* (1844), reprinted in *KARL MARX EARLY WRITINGS*, at 127 (T.B. Bottomore ed., 1963). This alienation was a result of the process of industrialization that: "(1) alienates nature from man; and (2) alienates man from himself, from his own active function, his life activity; so it alienates him from the [human] species." *Id.*

63. While Marx might be one of the first philosophers to discuss alienation within the context of industrialization, the formal understanding, and effect, of alienation has much older roots. For example, Istvan Meszaros identifies four bases of modern alienation: the Judaic concept of a fall from grace; the objectification of all value (what Meszaros calls "universal salability"); contradictions in humanity's role in history; and contradictions within the contractarian model of humans' historical relationship with nature. ISTVAN MESZAROS, *MARX'S THEORY OF ALIENATION* 35 (1970).

ment, this point has been made. For example, in his book, *The Unsettling of America: Culture and Agriculture*, Wendell Berry discusses alienation from nature and its effect on individuals. He describes a social system in which specialization becomes necessary and a broad appreciation of the Earth becomes remote. While efficient, Berry suggests about this sort of society that:

... though [it] becomes more and more intricate, it has less and less structure. . . . No longer does human life rise from the earth like a pyramid, broadly and considerably founded upon its sources. Now it scatters itself out in a reckless horizontal sprawl, like a disorderly city whose suburbs and pavements destroy the fields.⁶⁴

To Berry, the individual suffers a crisis of character in modern society. Because success is defined in terms of social achievement in a specialist world, the individual feels obliged to increase her or his capital wealth. When this self-defining need is hampered by an actual structure of the community that disallows accumulation (*i.e.*, by supporting hierarchies of access to education, political power, and natural resource), the individual is lost in Rousseau's "rivalry and competition" and becomes bitter.⁶⁵ As Berry writes, "[t]hat [the individual] is dependent upon so many specialists, the beneficiary of so much expert help, can only mean that he is a captive, a potential victim."⁶⁶

As both Marx and Berry suggest, individual members of a community strive, in the end, to have some control over their lives. And as this discussion implies, access to a certain quality of environment is a reflection of access to political power. When this access is denied, community members internalize a separateness from society that festers along with

64. BERRY, *supra* note 10, at 21.

65. Even earlier than Marx, Jean-Jacques Rousseau observed that access to accumulation of wealth often served to form a world of "rivalry and competition on one hand, and conflicting interests on the other, together with a secret desire on both of profiting at the expense of others." JEAN-JACQUES ROUSSEAU, *THE SOCIAL CONTRACT AND DISCOURSES* 87 (G.D.H. Cole trans., 1973).

66. BERRY, *supra* note 10, at 21.

their perceived injustice of unfair treatment. From this anomie of alienation comes the dynamic of social change. Charles Tilly has identified four primary components of collective action: the existence of collective interests; organization; the catalyst known as mobilization; and the opportunity to act.⁶⁷ As Tilly makes clear, collective identity is an important part of most of these components of action, and thus of social change.⁶⁸

With respect to environmental security, a community's MQE represents that level of environmental management below which individuals, within the context of their collective identity as a community, are likely to feel that they are not being treated justly. In such a situation, there is an increased risk of transvaluation⁶⁹ and, ultimately, social unrest. When this occurs the community in general, and the governing body in particular, may be confronted with a movement to redefine the nature of the community.⁷⁰

c. Responses to Environmental Mismanagement

The part of a community that feels its environmental needs unfulfilled under the reigning governing body might seek to redefine the parameters of that community primarily in two ways. First, those discouraged by the current community might dissociate, in effect forming a new community.

67. See generally CHARLES TILLY, *FROM MOBILIZATION TO REVOLUTION* (1978). See also FRANCES FOX PIVEN & RICHARD A. CLOWARD, *POOR PEOPLE'S MOVEMENTS: WHY THEY SUCCEED, HOW THEY FAIL* (1977).

68. See TILLY, *supra* note 61, at 52-142. One of the reasons for this is that in the early phases of unrest, transvaluation must occur. Transvaluation begins when individuals feel that their personal suffering is not isolated, but is part of a community-wide injustice. As the individual comes to believe that her or his actions to redress a problem will have a benefit beyond her or his individual life, and when that benefit becomes additional motivation to react to the injustice, transvaluation is complete. "For a protest movement to arise out of the traumas of daily life, people have to perceive the deprivation and disorganization they experience as both wrong, and subject to redress." PIVEN & CLOWARD, *supra* note 61, at 12.

69. See *supra* note 62.

70. The lack of access to natural resources such as food and adequate space for housing, often catalyzed by economic recession, has been the catalyst for social movements in the past. See, e.g., PIVEN & CLOWARD, *supra* note 61, at 47-48, 267-72.

The effectiveness of such a move would be determined by the governing philosophy of the existing community. While there is a range within which secessionary movements successfully separate from the parent government, domestic and international laws generally do not support such behavior.⁷¹ However, there are less dramatic examples of community reformation. Within an existing community, a new community might arise to augment or take the place of the original community with respect to the specific needs of a particular group of people. For example, cultural or religious groups might exist, such as the Amish or Hasidim, that prefer to govern their own lives to the greatest extent possible. These communities within larger political communities might govern certain aspects of environmental management, such as ensuring that its community members have access to land or food.

The other way that a social movement operates to reconfigure the operative parameters of the relevant community is to redefine the role of the community itself. With appropriate pressure and education, the community may redefine its MQE and thus its identity. For example, when a disaster strikes a community (e.g., a flood leaves some community members homeless), the community might quickly shift its MQE in order to reflect new priorities necessary to respond to the community crisis. Similarly, political realities might force the governing body of a community to support increased natural resource price supports for a commodity that was previously out of many community members' price range. Also, a governing body might attempt to convince the community that the current quality of environment is unsustainable or in some other way inappropriate.

71. See, e.g., Lea Brilmayer, *Secession and Self Determination: A Territorial Interpretation*, 16 YALE J. INT'L L. 177 (1991); Barbara W. Carlson, *Can Urban Woes Be Overcome By Secession?*, N.Y. TIMES, Oct. 3, 1993, § 13 (Connecticut Weekly), at 1.

2. Defining Environmental Security as Part of Defining Identity

Beyond the promotion of a community-determined, adequate standard of living that ensuring the MQE represents, the community has another reason to maintain environmental security. Community security is enhanced when community members understand and aid in the development of environmental management policy. From the broadest point of view, maintaining environmental security is about maintaining a collective understanding of the needs and aspirations of the community. Environmental security is thus intricately related to the communication, values, and education that comprise inculcation of identity.

a. Education and Identity

A community cannot exist without promoting and sustaining its institutions. Education, both formal and informal, acts as the necessary intergenerational transfer of identity.

Education is essential for community stability not only because it helps to nurture widespread understanding of the community's identity, but because the dialectic of education itself helps to shape that identity. The process of increasing awareness has the useful effect of instilling curiosity and, eventually, criticism.⁷² In much the same way that the scientific method utilizes curiosity and criticism as a tool in the quest to better describe phenomena, the dialectic of education works to refine social identity.⁷³ Instead of seeking to describe phenomena, however, the criticism that arises from education works to thrust the community's aspirations into debate, and therefore, to expose and respond to community-defined injustices.⁷⁴

This process of identity refinement has been identified with respect to the evolution of environmental ethics. In A

72. See generally PAULO FREIRE, *PEDAGOGY OF THE OPPRESSED* (1970).

73. To the extent that education is limited in its freedom of inquiry, it fails to be liberating. FREIRE at 27-56.

74. *Id.* at 27-56. The increasing refinement of a community's identity to include evolving ethical considerations is a process which helps to define that community.

Sand County Almanac, Aldo Leopold recognized that evolution of an ethic was part of a society realizing its own needs as a community.⁷⁵ He wrote that:

[a]n ethic may be regarded as a mode of guidance for meeting ecological situations so new or intricate, or involving such deferred reactions, that the path of social expediency is not discernible to the average individual. Animal instincts are modes of guidance for the individual in meeting such situations. Ethics are possibly a kind of community instinct in-the-making.⁷⁶

The specific ethic identified by Leopold is one that redefines the relationship of humans to the Earth.⁷⁷

b. The Relevance of Increased Awareness About Environmental Management Issues

If education is the process for ensuring an identity that corresponds to the evolving needs of the community, then education about environmental management is a necessary part of insuring environmental security. To these ends, the environmental education movement has attempted to synthesize a pedagogy of policy, science, and social studies.⁷⁸ The

75. Leopold emphasized that the development of society mirrored that of ecological evolution. He wrote: "[the] extension of ethics . . . is actually a process in ecological evolution. . . . An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from anti-social conduct. These are two definitions of one thing." ALDO LEOPOLD, *A SAND COUNTY ALMANAC* 202 (1987).

76. *Id.* at 203.

77. Leopold suggests that an environmental ethic redefines not only the individual's relationship with the Earth, but also with the broader community. He writes:

[t]he land ethic . . . enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.

LEOPOLD at 239-40.

78. Probably the most famous definition of environmental education was formulated by W.B. Stapp in 1969. He wrote: "Environmental Education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these

foresight of this goal should not be dismissed. By actively inculcating environmental ethics, environmental awareness nurtures a public consciousness that will lead to future alterations in public policy.

Beyond the Earth-protecting goals of environmental education, such education is devoted to a new ethic of problem-solving. This is sensible because, as Leopold suggested, the establishment of ethics is "actually a process in ecological evolution." As long as humans conceptualize themselves and their relationships as part of the Earth's environment, then their collective social decisions—including the establishment and evolution of a community identity—are environmental ones.

Environmental awareness directly promotes environmental security in other ways as well. Many environmental management problems are very difficult to understand and to solve. Such problems differ from other types of policy challenges in several ways: they often have irreversible consequences;⁷⁹ their scale (in both time⁸⁰ and space⁸¹) may be much larger than other problems; they are difficult to value

problems, and motivated to work toward their solution." W.B. Stapp et al. *The Concept of Environmental Education*, 1 J. ENVTL. EDUC. 31 (1969). More recently, a scholar expanded Stapp's definition by characterizing a citizenry that is:

- 1) knowledgeable about the biophysical and sociocultural environment of which man is a part; 2) aware of environmental problems as well as of management alternatives of use in solving these problems; 3) motivated to act responsibly in developing diverse environments that are optimal for living a quality life; and 4) willing to be involved in social activities for improving the environment in which he lives.

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

79. For example, the nascent field of conservation biology stresses that genetic information, stored in biotic matter, is lost forever when humans engage in practices that cause extinction. See generally CONSERVATION BIOLOGY: THE SCIENCE OF SCARCITY AND DIVERSITY (Michael E. Soule ed., 1986).

80. The notion of intergenerational equity suggests that there are no one-time solutions to environmental management problems; the "solutions" will be a constant state of ecological vigilance. For a well-reasoned treatment of the compulsion for this obligation, see EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERA-

in traditional ways;⁸² they are unique and therefore their solutions may not be easily transferable from one set of circumstances to another;⁸³ they necessitate extensive simultaneous reliance on specialists from diverse fields (e.g., ecologists, sociologists, economists);⁸⁴ and they are premised on and dictate responses based on uncertainty.⁸⁵ The burden of responding to environmental management problems is so great that the community's priorities for environmental management may well be different from the governing body's. Environmental security is sure to be threatened in such a world. Environmental awareness promotes the establishment of a commonly understood body of knowledge and, therefore, the discourse that may lead to environmental security.

TIONAL EQUITY (1989) and Edith Brown Weiss, *The Planetary Trust: Conservation and Intergenerational Equity*, 11 *ECOLOGY L.Q.* 495, 540 (1984).

81. The physical scope of international environmental problems may range from single border (e.g., acid rain) to regional (e.g., protection of a regionally shared watershed) to global concerns (e.g., climate change).

82. For example, privatization, the traditional solution to poor management, may not be readily applicable to all natural resource management. Economists have long debated the ability of free-market mechanisms to protect the environment. A recent move to incorporate environmental "costs" (traditionally ignored as externalities) into the gross national product of states has gained some favor. See Marlise Simons, *Europeans Begin to Calculate the Price of Pollution*, N.Y. TIMES, Dec. 9, 1990, at E3; Peter Passell, *Rebel Economists Add Ecological Cost to Price of Progress*, N.Y. TIMES, Nov. 27, 1990, at C1.

83. Because international environmental management problems often reflect unique ecological, cultural, political, historical, and logistical factors, solutions must be unique to the circumstances. See LYNTON K. CALDWELL, INTERNATIONAL ENVIRONMENTAL POLICY: EMERGENCE AND DIMENSIONS 9-11 (1984). See also discussion *infra* section V.C.

84. Promotion of enhanced status for nongovernmental organizations has long been a goal of international environmental activists in part because of the necessity of involving experts from a wide range of fields. See generally, Philippe Sands, *The Environment, Community and International Law*, 30 HARV. INT'L L.J. 393 (1989). For further discussion of the increasing role of nongovernmental organizations see, e.g., WERNER J. FELD ET AL., INTERNATIONAL ORGANIZATIONS: A COMPARATIVE APPROACH 3 (1983); PRESSURE GROUPS IN THE GLOBAL SYSTEM (Peter Willetts ed., 1982). However, states may view reliance on nonnational representatives as threatening to the autonomous decision making of states. See, e.g., CHIANG PEI-HENG, NON-GOVERNMENTAL ORGANIZATIONS AT THE UNITED NATIONS: IDENTITY, ROLE, AND FUNCTION 188 (1981).

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

Environmental security and environmental education are linked by a common goal to infuse each community's identity with the desire to discern a community-appropriate quality of environment. To the extent that environmental awareness promotes the evolution of an identity that identifies and supports environmentally protective natural resource management, environmental security will be easier to define and maintain.

Because each community's MQE represents the parameters within which each community perceives its responsibilities to maintain its environment, the object of the remainder of this article will be to characterize how MQEs are affected by the intracommunity and intercommunity forces that help to shape each community's MQE. This exercise will allow an understanding of the relationship between humans and the Earth to further emerge. Specifically, by examining the concept of MQE, environmental security may be shown to be a global ideal, only fully achievable as part of a universalization of environmental responsibility and justice.

III. Intracommunity Aspects of Environmental Security

Many threats to environmental security originate in the relationship between a governing body and the community it governs.⁸⁶ While the threshold to an environmental security threat is as unique as the community's identity, a common basis of community dissatisfaction is perceived inequities in the management of natural resources. Intracommunity-motivated environmental security concerns often reflect the governing body's discriminatory use of power.

86. Even when the natural resource that precipitates community instability originates in a foreign community, the actual threat to environmental security is often, at least in part, propelled by the community's dissatisfaction with the governing body's management of the situation. See discussion *infra* section IV.A.

A. The Governors and the Governed

The dynamic of environmental security sketched in the last part of this article presumes that every governing body is a governing body because, at least to some extent, it manages the community's relationship to its natural resources, *i.e.*, its environment. Beyond its usefulness in helping to define the governing body itself, this control is necessary because it assures that the governing body will be able to respond to shifts in the community's needs. Furthermore, this control allows the governing body to shape environmental management in a way that it most desires; for example, the governing body may be able to increase its legitimacy by ensuring that the needs of more numerous or influential portions of the community are met. Even if meeting the demands of the influential leaves less for other members of the community, the political benefit for the governing body may be deemed worth any dissonance that the action might cause.

That the governing body controls the community's environmental management does not necessarily mean that the governing body directly provides access to a given natural resource itself. The governing body may achieve its ends by merely supporting a given flow of natural resources within the community. For example, the United States government supports certain natural resource uses by promoting lending, tax laws, and agricultural policies that favor large farm businesses and practices over smaller-scaled, often family-owned, farms.⁸⁷ Many examples of more direct control come from land use policy. The United States government promotes the ranching industry by allowing cattle to be grazed on federal land at rates below that which the private market would dictate.⁸⁸ By doing so, the government supports access to graz-

87. See generally MARK KRAMER, *THREE FARMS: MAKING MILK, MEAT AND MONEY FROM THE AMERICAN SOIL* (1980); BERRY, *supra* note 10, at 27-38, 51-79. See also Peter T. Kilborn, *Iowa Farmers Rebel Against Subsidies, Seeking New Setup*, N.Y. TIMES, July 25, 1994, at A1.

88. See generally GEORGE C. COGGINS & CHARLES F. WILKINSON, *FEDERAL PUBLIC LAND AND RESOURCES LAW 675-703* (1987); George C. Coggins, *The Law of Public Rangeland Management V: Prescriptions for Reform*, 14 ENVTL. L. 497, 503 (1984). See also Elliot Diring, *New Babbitt Plan on Grazing Rules:*

ing lands for those intent on utilizing those resources for grazing above those who wish to utilize the grasslands for other uses (e.g., for scenic beauty, for hunting, or just for the sake of their unspoiled existence).⁸⁹ In urban localities, zoning provides a similar result. Based on the dictates of the community, certain land uses are supported while others are deemed less desirable.⁹⁰

These examples of environmental management policy determination are not meant to suggest that such discrimination is unnecessary or bad, only that it occurs; the governing body often has the ability and responsibility to manage the community's environment regardless of whether it technically owns those resources.⁹¹ Furthermore, the examples are meant to show that environmental management decisions are political determinations. Managing a natural resource means that a choice must be made as to how best to maximize the objectives of the community with respect to that resource. A problem may occur when the governance is too responsive to the objectives of the community as a whole. Majoritarianism may lead to a lack of protection of minority values and needs.⁹² As in the example of zoning, if land use policy for a city is determined wholly by popular referendum, then the needs of minority landowners may well be sacrificed on the altar of democracy. Without specific methods of ensuring protection for minority rights, groups that are underrepresented in the governing body may systematically obtain a lesser

Ranchers, Environmentalists Would Work Out Standards Together, S.F. CHRON., Mar. 19, 1994, at A3; Timothy Egan, *Sweeping Reversal of U.S. Land Policy Sought by Clinton*, N.Y. TIMES, Feb. 24, 1993, at A1.

89. See COGGINS & WILKINSON, *supra* note 82, at 675-703.

90. See generally LEWIS MUMFORD, *THE SOCIAL FOUNDATIONS OF POST-WAR BUILDING* (1943); *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926). See also *infra* note 95.

91. A common criteria that governing bodies use to determine which parties should benefit from environmental management is the ability to pay. For example, governments sometimes manage recreational pursuits on public lands by selling licenses to hunt. See COGGINS & WILKINSON, *supra* note 82, at 852-53. Similarly, government environmental regulation might work to impose large start-up costs on potentially polluting industries. See *supra* note 36.

92. See *supra* notes 48-49 and accompanying text.

share of environmental benefits and thus become alienated from the community.

The search for a new community in which to have one's needs met is a reflection of dissatisfaction with a particular governing philosophy and, to the extent that the governing body is challenged by that movement, a threat to environmental security. As outlined above,⁹³ community unrest might lead to an attempt to dissociate from the governing body's control, at least with respect to management of the natural resource in question, and pressure to force a redefinition of the community's identity. In the intracommunity setting, these pressures are often related; the movement of a group of alienated individuals away from support of the governing body may result in an alteration of the identity of the community.⁹⁴

1. Environmental Racism as an Example of an Intracommunity-Motivated Threat to Environmental Security

An example of the dynamic of an intracommunity-motivated threat to environmental security is the set of issues currently labelled "environmental racism."⁹⁵ The term refers to at least two connected conditions.⁹⁶ In 1987, the United

93. See discussion *supra* part II.B.1.c.

94. The rapidity with which an identity change might occur is correlated to the governing philosophy of the community. Liberal democracies are well known for institutionalizing the process of change. See, e.g., Richard B. Stewart, *Regulation in a Liberal State: The Role of Non-Commodity Values*, 92 *YALE L.J.* 1537 (1983).

95. Some people prefer to use the less evocative phrases "environmental justice issues" or "environmental classism" to refer to approximately the same set of issues. I hope to stay away from that debate by claiming that the issues I am particularly addressing here are those that have been correlated, in the current discourse, with race. This is not an attempt to disagree with critics who charge that racism is not the underlying social problem, but instead that classism is the culprit. There is certainly no attempt here to hierarchialize oppression. I hope to suggest, first by way of the metaphor here and soon after by more specific parsing of the term, ways of conceptualizing the broader concept of environmental "injustice" during the remainder of this article.

96. There is a growing body of literature on environmental racism issues. Beyond the discourse suggested by the citations listed in the following dozen footnotes, other scholarly discussions are underway. For example, one law jour-

Church of Christ Commission for Racial Justice released one of the first reports correlating toxic waste landfill siting in the United States to the demographic profile of the inhabitants of the communities selected for the landfills.⁹⁷ Several similar reports have followed,⁹⁸ including a 1992 report conducted by the *National Law Journal* that showed that federal environmental laws were of disproportionately small benefit to members of racial minority groups.⁹⁹ These reports generally indicate that people with relatively low incomes and/or people of color are more likely to have hazardous waste treatment facilities sited in their neighborhoods than are members of the population in general.¹⁰⁰ The primary lesson of these studies was not surprising to many who have worked with land use questions in the past. Land use decision making, including zoning,¹⁰¹ traditionally has been a function of local

nal recently published a special issue devoted entirely to these issues. 21 FORDHAM URB. L.J. (1994). See also Vicki Been, *Locally Undesirable Land Uses in Minority Neighborhoods: Disproportionate Siting or Market Dynamics?*, 103 YALE L.J. 1383 (1994); CONFRONTING ENVIRONMENTAL RACISM: VOICES FROM THE GRASSROOTS (Robert D. Bullard ed., 1993); Michael Greenberg, *Proving Environmental Inequity in Siting Locally Unwanted Land Uses*, 4 RISK - ISSUES IN HEALTH & SAFETY 235 (1993); Vicki Been, *What's Fairness Got to Do With It? Environmental Justice and the Siting of Locally Undesirable Land Uses*, 78 CORNELL L. REV. 1001 (1993); Richard J. Lazarus, *Pursuing "Environmental Justice": The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787 (1993).

97. COMMISSION FOR RACIAL JUSTICE, UNITED CHURCH OF CHRIST, 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). An earlier report addressed the same topic. See U.S. GEN. ACCT. OFF., SITING OF HAZARDOUS WASTE LANDFILLS AND THE CORRELATION WITH RACIAL AND ECONOMIC STATUS OF SURROUNDING COMMUNITIES (1983).

98. See also Kenneth J. Hollenbeck & Stephen J. Hudik, *Green Justice: Should the Poor Inherit the Polluted?*, N.J.L.J., June 6, 1994, at Supp. 10.

99. Marianne Lavelle & Marcia Coyle, *Unequal Protection: The Racial Divide in Environmental Law*, NAT'L L.J., Sept. 21, 1992, at S2. See also Editorial, *Environmental Justice*, N.Y. TIMES, Feb. 11, 1994, at A34.

100. See, e.g., Robert D. Bullard, *The Threat of Environmental Racism*, 7 NAT. RESOURCES & ENV'T 23 (1993); ROBERT D. BULLARD, DUMPING IN DIXIE: RACE, CLASS, AND ENVIRONMENTAL QUALITY 1-6 (1990). But see *Locally Undesirable Land Uses in Minority Neighborhoods*, supra note 90, at n.2.

101. It may be that some part of the cause of disproportionate locally undesirable land use siting might come from underprotective zoning regulation. See Yale Rabin, *Expulsive Zoning: The Inequitable Legacy of Euclid*, in ZONING AND THE AMERICAN DREAM 101 (Charles Haar & Jerold S. Kayden eds., 1989).

community government; those parts of the community that have greater amounts of money and power are more able to block attempts to site disagreeable uses of the local landscape.¹⁰² The message that the charge of environmental racism carries is that members of politically less powerful groups are exposed to greater risks from hazardous waste related problems than the overall population of the United States, and are thus disproportionately carrying certain environmental burdens of modern society.¹⁰³

The second condition that falls under the broader heading of environmental racism has to do with the fulfillment of the promise of the environmental movement itself. The modern vanguard of the movement—as reflected in the college-educated, white, and relatively affluent members of the national environmental organizations—had continued to promote a primarily ecocentral agenda for the movement well into the 1980s.¹⁰⁴ In addition to equating an “environmen-

102. Indeed, politically vulnerable and economically depressed communities are often offered minimal economic incentives for the use of their open space, thus stamping the disproportionate environmental risks that these communities often accept with the imprimatur of a voluntary business deal. 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. As a further example of a similar condition, there has been increasing concern about the siting of hazardous waste landfills on the reservations of Native Americans. See, e.g., Len Hall, *Ranchers Protest Planned Landfill on Indian Reservation*, L.A. TIMES, Aug. 25, 1992, at B1; Thomas W. Lippman, *On Apache Homeland, Nuclear Waste Seen as Opportunity*, WASH. POST, June 28, 1992, at A3.

There is much debate over the specific mechanisms of environmental racism, see, e.g., Richard J. Lazarus, *Pursuing “Environmental Justice”: The Distributional Effects of Environmental Protection*, 87 NW. U. L. REV. 787, 807, 810-12, 820 (1993); CONFRONTING ENVIRONMENTAL RACISM, *supra* note 90; Been, *supra* note 90, at n.5. Few theorists have suggested that disproportionate decision making does not exist.

103. Neocolonialism might be understood to be a similar type of environmental discrimination. See *supra* note 31 and accompanying text. See also CONFRONTING ENVIRONMENTAL RACISM, *supra* note 90, at 179-94; Bernard A. Weintraub, *Which Environment and What Law?*, 6 TULANE ENVTL. L.J. 259, 266-67 (1993).

104. See generally Claudia MacLachlan, *Tension Underlies Rapport With Grassroots Groups*, NAT'L L.J., Sept. 21, 1992, at S10; Renee Loth, *Bringing*

tally desirable" quality of life to one which the United States' increasingly urban, nonwhite population could hardly relate, these groups continued to have a dearth of employees who were members of racial minority groups in decision-making roles.¹⁰⁵ Such insularity suggested to many community leaders that environmentalism was not a movement in which the concerns of members of racial minority groups were welcome. This concern recently precipitated a number of internal policy alterations in the larger environmental organizations.¹⁰⁶

The two circumstances of environmental racism are related. They both suggest that when a minority group is denied influence in community decision-making, members of the group will become alienated from that community. The attention devoted by the media, the government, and modern environmentalists to the assertion of environmental racism indicates that the charge is destabilizing. The increasingly sophisticated discourse precipitated by the charge pressures the targeted governing body to be accountable for the skewed results of environmental management in practice. For example, a recent Clinton Administration Executive Order requires that:

each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions¹⁰⁷

Earth Day Back Down to Earth; Grass-roots Activists Tweak 'Elitist' Brethren, BOSTON GLOBE, Apr. 21, 1991, at A33; Brad Knickerbocker, *'Green' is Not White*, CHRISTIAN SCI. MONITOR, Dec. 6, 1990, at 13; John Lancaster, *Role of Minorities in Environmental Movement Remains Limited*, WASH. POST, Nov. 23, 1990, at A14.

105. See sources *supra* note 98.

106. For example, between 1990 and 1992, the Natural Resources Defense Council increased the number of people of color on its staff from 14 to 35 out of a total of 160; of those 35, nearly half were salaried staff. *Building Bridges*, NRDC NEWSLINE, Apr. 1992, at 3.

107. Exec. Order No. 12,898, *supra* note 23, at ¶ 1-101.

This initiative shows that these issues reflect a large enough threat to security to warrant a response from the highest levels of government.¹⁰⁸

The charges of environmental racism against the large environmental organizations lead to similar results. The major environmental organizations constitute a special community which also must respond to the charges. In so doing, the identity of United States environmentalism is altered.¹⁰⁹ Furthermore, new environmental organizations, many of which reflect the demographics of the communities in which they operate, have come into being in the recent past.¹¹⁰ The existence of these groups suggests that a minority population may both work to redefine the identity of the broader community in which it exists, and at the same time, formulate new communities to meet its specific needs.

2. An Environmental Justice

The occurrence of environmental racism suggests that the environmental needs of the less powerful members of a community may, in many ways, become subordinated to the needs of the powerful. A pattern of environmental management which systematically selects against one group of community members without a reasonable policy rationale—such as that described by the charge of environmental racism—might be called environmental discrimination. The continuance of such bias is a threat to environmental security.

Because maintaining environmental security is a goal of every community, a lack of institutionalized checks on the abuses of power is an indication of that community's convictions about both individuals' rights and environmental man-

108. See also John H. Cushman, Jr., *Clinton to Order Pollution Policy Cleared of Bias*, N.Y. TIMES, Feb. 10, 1994, at A1; *Environmental Justice*, *supra* note 93.

109. See, e.g., *Building Bridges*, *supra* note 100.

110. See, e.g., Marcia Coyle, *When Movements Coalesce*, NAT'L L.J., Sept. 21, 1992, at S10; Steve Schneider, *Environmental Racism? Residents Say Sewage Plant 'Ravages' Community*, N.Y. NEWSDAY, May 4, 1992, at 21; Ronald A. Taylor, *Ecological Front Shifts to Inner City*, WASH. TIMES, Apr. 20, 1990, at H2.

agement.¹¹¹ Indeed, because the definitions of natural resources, environment and, ultimately, environmental security, are so intertwined with the community's self-perception with respect to the benefits and services the community allocates to individuals, the entire discussion of environmental security is strongly informed by concepts of justice.

Justice is a construct used to describe the community-determined, proper way for a governing body to treat individuals. Each community includes some concept of justice in its identity. Because the context of the discussion in this article is people's relationship with their environment, and because a community's environment is a web of connections to natural resources originating both inside and outside of the community in question, environmental security can only make sense if there exists a common basis for the just management of the environment. I refer to this broader conception of justice as "environmental justice."¹¹²

At its foundation, environmental justice promotes equality of the benefits of environmental management within a given community.¹¹³ This position could follow from Rawls' conception of an original position in which all members of a justice-defining community find themselves behind a veil of

111. This formulation does not attempt to suggest that the governing body need respond to the demands of every community member in every case. See *supra* note 24. However, certain institutionalized responses might be necessary to ensure that the rights of community members are protected. See discussion *infra* section III.D.

112. There are many concepts described as "environmental justice" in the literature. See sources cited at *supra* notes 90-104. I will leave it for another day to examine those constructs in greater detail. It is necessary for me to formulate at least a cursory notion of the concept here because a comprehensive theory of environmental security relies on common concepts of justice which must be described in a commonly accepted context.

113. Rawls' endeavor was to define a system of justice within a given community. Thus, much of the criticism of Rawls with respect to international law has to do with his failure to discuss in detail the "international" community—whether it be composed of states that are synonymous to individuals in a domestic justice system, or of individuals that might have obligations to some global community. See generally CHARLES R. BEITZ, *POLITICAL THEORY AND INTERNATIONAL RELATIONS* 125-76 (1979).

ignorance.¹¹⁴ While Rawls' own original position is somewhat problematic,¹¹⁵ it is still possible that general principles of justice, especially as they relate to community-defined normative goals, can be forged from a contractarian point of view. Once again following Rawls, there should be a caveat to this general goal of equal benefit. Equality must be maintained "unless an unequal distribution of any or all . . . goods is to the advantage of the least favored."¹¹⁶ This exception is specified in what Rawls calls the difference principle: that "[s]ocial and economic inequalities are to be arranged so that they are both: (a) to the greatest benefit of the least advantaged . . . , and (b) attached to offices and positions open to all under conditions of fair equality of opportunity."¹¹⁷ The inclusion of a qualification such as the difference principle in a theory of environmental justice is one way to safeguard against environmental discrimination.

This Rawlsian skeleton is the beginning of a model of environmental justice that might support a unified theory of environmental security. What the outline lacks is the flesh of modern environmental morality and politics. As this article continues to parse environmental security, I will attempt to add to the model of environmental justice. This will be done

114. Rawls' conceptions of justice rely on an "original position" wherein all those who will determine the principles of justice for the given community make that determination behind a "veil of ignorance." JOHN RAWLS, *A THEORY OF JUSTICE* (1971). This original position is one where:

no one knows his place in society, his class position or social status, nor does any one know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the like. . . . [P]arties do not know their conceptions of the good or their special psychological propensities.

Id. at 12.

115. This is so primarily because I do not think it properly accounts for intercommunity and intertemporal relationships. See BERTZ, *supra* note 107, for a thorough discussion of where Rawls fails with respect to international applications of his own theory. See also Brent A. Singer, *An Extension of Rawls' Theory of Justice to Environmental Ethics*, 10 J. ENVTL. ETHICS 217 (1988). Singer argues that being behind the veil of ignorance should mean that parties in the original position must be unaware as to which present or future generation they belong.

116. RAWLS, *supra* note 107, at 303.

117. *Id.* at 302.

by refining the definition of MQE stated above in section II.A.2. By such refinement, I hope to show that there is a series of criteria that all communities internalize, or should internalize, as goals of environmental management in an effort to maximize environmental security.

B. The Local Community

The primary community with which most people associate is the one that most impacts their lives: the one in which they live. Such communities are frequently municipalities, but they might also be less formal governance arrangements.¹¹⁸ For this community, as all others, an MQE exists that reflects the community-specific environmental management for which the governing body is responsible.¹¹⁹ In the United States, the local governing body is most conspicuously responsible for creating and enforcing a local land use policy, providing municipal services such as provision of park areas and solid waste removal, promoting the local economy, and frequently ensuring some level of access to environmental management decision making.

It might be argued that the political dynamics of local communities are too insignificant in the larger context of modern national politics to be called a threat to any recognizable form of environmental security. Indeed, local communities are often very similar, and their common concerns might be addressed by broader governmental policy mechanisms.¹²⁰ If this is so, then the broader governmental policy mechanisms reflect the governing body of the most local community

118. See, e.g., *infra* notes 119-20 and accompanying text.

119. The local governing body is not usually responsible for directing all environmental management policies that affect each community member's life. Only in rare cases will the local government be responsible, for example, for the economic policies that allow raw materials to flow in and out of the country in which the local community exists. Furthermore, many environmental laws are administered on the domestic government level. See discussion *infra* section III.C.

120. For example, if all towns in a given county have similar land use needs and desires, then zoning and park management might well proceed on the county or even domestic level. In this case, the "township level" community fails to have any meaning with respect to environmental security.

that exists for the sake of managing the natural resource in question.¹²¹ The role of a local governing body is not negated. Also, the analysis of environmental security undertaken here is limited to the effects of the instability of the community itself. Whether intracommunity-motivated threats to environmental security are linked to intercommunity concerns will be taken up later.¹²²

Because the local community so directly impacts people's lives, it is in this forum that attempts to translate identity into policy are most open to scrutiny and failures to meet the goals defined by the MQE are most resented. Consequently, charges of environmental discrimination are often leveled first against the policies and management of the governing body of the local environment. Because intracommunity-motivated challenges to environmental security often involve seeming failures to manage the environment equitably, attempts to maintain environmental security often entail the governing body's attempts to justify or alter a management policy or to redefine what reasonably should be deemed equitable with respect to environmental management.

As mentioned above, local land use policy such as zoning may provide a context for the environmental discrimination that might precipitate a threat to the environmental security of the local community. Examples of this often are seen in the siting of locally undesirable land uses (LULUs). Such uses include solid waste transfer stations, solid waste incinerators, industrial processing plants that are associated with hazardous chemical use, sewage treatment plants, public-need facilities such as shelters for the homeless, policy-mandated low-income housing, mental hospitals, and other facilities that might be disagreeable to the local community.¹²³

The siting of LULUs is often a function of the local governing body, which creates a land use policy according to the perceived best interest of the community. However, the

121. At some point the scope of government functions is so large that it cannot be called local. See discussion *infra* section III.C regarding these larger, domestic communities.

122. See discussion *infra* parts IV and V.

123. See sources listed at *supra* note 90.

majoritarian interest of the community might lead to specific groups in that society bearing more risks associated with certain land uses than others. For example, while it is necessary for some LULUs to be sited in a community as large as New York City, some neighborhoods house a greater per capita share of LULUs than others. It has long been acknowledged that the Greenpoint neighborhood of Brooklyn houses a disproportionate share of such sites.¹²⁴ While there appears to be no intentional discrimination against the residents of Greenpoint, there must be some bias in the process of site selection that has lead to systematic placement of health risks and land-use burdens in one geographical location. In opposition to what they perceive to be environmental discrimination, residents of Greenpoint have organized groups such as the Concerned Citizens of Greenpoint and Greenpoint Against Smell and Pollution.¹²⁵ These groups have lead a campaign to increase awareness about the residents' plight, as well as to motivate the appropriate regulatory agencies to recognize the inequity of the situation and to ameliorate the threats.¹²⁶

Community members who crave space and see old waterfronts wasted by lack of upkeep or outdated uses,¹²⁷ or see

124. Greenpoint is home to facilities that use, process, and store hazardous chemicals; solid waste transfer stations; a city-owned garbage incinerator; a city-owned sewage treatment plant; and a vast underground oil spill. The area is also bordered and crossed by a number of major highways. See Joseph R. Lentol, *Letter to the Editor: Let's Make a Start on Environmental Justice with Brooklyn*, N.Y. TIMES, Feb. 25, 1994, at A28; Manuel Perez-Rivas, *Pollution Study Is Muddy Issue*, N.Y. NEWSDAY, Feb. 23, 1992, at 5; Elizabeth Kolbert, *Mobil to Pay Millions to Clean Up Vast Pool of Oil Beneath Brooklyn*, N.Y. TIMES, July 10, 1990, at A1; Curtis Rist, *A Solemn Earth Day in Brooklyn; Residents Side by Side with Danger*, N.Y. NEWSDAY, Apr. 22, 1990, at 6.

125. See, e.g., Merle English, *Airing a Big Stink On Earth Day Eve; Filmmaker Shows Greenpoint's Toxic Troubles*, N.Y. NEWSDAY, Apr. 21, 1993, at 33; Rist, *supra* note 118.

126. See *supra* note 119. See also William Bunch, *Brooklyn Cancer Up; Among City's Highest Rates*, N.Y. NEWSDAY, May 22, 1992, at 3; Perez-Rivas, *supra* note 118.

127. See Alix Biel, *Old Saybrook Pier Focus of Anger*, HARTFORD COURANT, Aug. 31, 1994, at B1; Shelley Neumeier, *Park Developer Plants Plan for Green Hudson*, CRAIN'S N.Y. BUS., Sept. 21-27, 1992, at 13.

open land made unusable by drugs and pollution,¹²⁸ may organize to change these "unacceptable" natural resource uses. Even when the group of people organizing such crusades is not the whole of the community, the grassroots attempt to alter environmental policy may alter community identity. In the example above, as the people of Greenpoint became aware and then concerned about their exposure to various environmental toxins, they began to organize. If their protest is deemed a great enough threat to the environmental security of the community, the governing body will be influenced by the protesters to alter its policies.

The process of restoring or ensuring environmental security in the local community is one primarily of responding to environmental discrimination. While protest is often a useful way to eventuate change in environmental management, active community introspection might save the community, and the governing body in particular, from the disruptions of social unrest. While there is no space here to discuss various processes of institutional learning and development, this process would be part of the process of community education and ethic building mentioned above in section II.B.2. Even when such formal introspection is not occurring, a governing body might be educated by the organizing that goes on in communities. In New York City, many environmental organizations have come into being or have gained stature in the recent past.¹²⁹ Such groups are beneficial for the community because they act as a register of community dissatisfaction on specific issues, they provide information to the community about specific issues, and they educate the community as to the need to reformulate its identity to include a more inclusive MQE.¹³⁰

128. See Iver Peterson, *A No Man's Land Thrives As Everyone's Garden*, N.Y. TIMES, Apr. 30, 1993, at B5.

129. Examples include Greenpoint Against Smell and Pollution, West Harlem Environmental Action, Transportation Alternatives, the Environmental Action Coalition, the Brooklyn Greens, the Green Guerrillas, the Greening of Harlem Coalition, the Environmental Education Action Coalition, and the New York City Environmental Justice Alliance.

130. See generally discussion *supra* section II.B.2.

The result of community environmental education and social instability is a reassessment of the environmental management of the community. While the ability to actually provoke change is a function of the community's identity, the goal remains to make the governing body at least responsive to the environmental needs of the people.

C. The Domestic Community

The environmental management engaged in by the local governing body directly affects community members' quality of life. However, many of the natural resources on which people rely are managed by governing bodies of communities that cannot easily be categorized as local. This larger community—usually labelled a country or a state¹³¹—is the domestic community. Citizens of a country rely on the governing body of the domestic community for the management of certain natural resources; they rely on their local community's governing body for the management of others.¹³² The governing bodies of both communities are responsible to each person to ensure that her or his quality of life is consonant with that defined as appropriate within the identity of both communities.¹³³

131. The political structure of most modern countries includes governing bodies at the country and local levels. Many modern countries also have an intermediate, or provincial, level of governance. In the United States, there are such regional governments which govern entities confusingly called "states." Thus, when I discuss the United States, I may refer to the governing body of states that are not coincident with the governing body of the United States' domestic community.

132. Of course, people are community members, at least for the sake of natural resource management, at each level on which natural resources are managed. The existence of self-governing states in the United States allow there to be at least three levels of communities to which each citizen is a member. It could even be argued that because some natural resources are managed on the county level in the United States (e.g., certain park lands), United States citizens are members of at least four political communities.

133. Of course, the MQE of the domestic community might be thought of as a baseline; the local community's MQE would include environmental management at least as protective as that of the broader (and less specific) domestic community.

1. Domestic Environmental Discrimination

Similar to the concerns at the local level, domestic level environmental management may become a vehicle of discrimination if majoritarian impulses are not checked. For example, the first modern version of the Clean Air Act (CAA)¹³⁴ appeared to permit all states to establish their State Implementation Plan (SIP) control strategies based on a single set of national pollutant standards, regardless of the existing levels of pollution within each state.¹³⁵ This resulted in a series of SIPs approved by the United States Environmental Protection Agency that, in effect, allowed polluting industries to degrade the quality of air in areas which previously had relatively clean air.¹³⁶ When the CAA was amended in 1977, the Prevention of Significant Deterioration program was added¹³⁷ to ensure that the air quality in less-industrialized areas did not suffer for the ills of the overdeveloped areas.¹³⁸ Similar to the local environmental context, the governing body of the domestic community often must be prodded into ensuring equal management of the environment for all community members.

Beyond the CAA example, there are many incidents of domestic environmental management that have resulted in charges of environmental discrimination. Beginning in the late 1980s, attention began to be focused on the disproportionate risk burden Native Americans were beginning to assume by allowing the siting of hazardous waste sites on their reservations.¹³⁹ Such siting might be thought of as environ-

134. Pub. L. No. 91-604, 84 Stat. 1676 (1970).

135. See, 40 C.F.R. § 51.12(b) (1970).

136. See *Sierra Club v. Ruckelshaus*, 344 F. Supp. 253 (D.D.C. 1972), *aff'd without opinion*, 4 Env't Rep. Cas. (BNA) 1815 (D.C. Cir. 1972), *aff'd by an equally divided court*, *Fri v. Sierra Club*, 412 U.S. 541 (1973).

137. Pub. L. No. 95-95, § 127, 91 Stat. 685, 731 (1977) (codified as amended at 42 U.S.C. pt. C, §§ 7470-7492(f) (1994)).

138. In part, this amendment was a response to a series of decisions that held that the prevention of significant deterioration of air quality was part of the original mandate of the CAA. See *Sierra Club v. Ruckelshaus*, 344 F. Supp. at 256.

139. Most of these siting decisions may be said to occur at the national level because of the unique status of Native American reservations within the United States government. Native American reservations are considered separate na-

mental discrimination because it takes advantage of the fact that Native Americans are often unable to turn away the incentives of hazardous waste disposal because of their community's poverty.¹⁴⁰

Disproportionate allocation of national park funding to parks located in areas where relatively few people directly benefit from them might be another example of environmental discrimination. Some people have recently questioned why Gateway National Park, in the New York City Metropolitan area—annually serving twice as many visitors as Yosemite National Park in California—receives a quarter less funding than Yosemite.¹⁴¹ To the extent that people in areas of the United States who do not directly benefit from equitable funding for national parks feel that the inequity is not a reasonable interpretation of the United States identity, and are willing to say so, the environmental security of the United States is threatened. Similarly, farmers in California are protesting that state government's recent decision to allocate less water to irrigation and more water to places that benefit conservation and the fishing industry.¹⁴² While there might be good reasons why such policy determinations are made, calling attention to the discrepancy forces the community to justify the inequity, thus refining and strengthening its identity.

These examples suggest that intracommunity-motivated threats to environmental security are similar in cause and effect at the domestic and local levels. Also similar are the methods that a responsive governing body should undertake to address these challenges. Because threats to environmen-

tions from the United States for many environmental regulatory purposes. See Craighton Goepppele, *Solutions for Uneasy Neighbors: Regulating the Reservation Environment After Brendale v. Confederated Tribes & Bands of Yakima Indian Nation*, 109 S. Ct. 2994 (1989), 65 WASH. L. REV. 417 (1990); *Washington Dep't of Ecology v. United States Environmental Protection Agency*, 752 F.2d 1465 (9th Cir. 1985).

140. See Schneider, *supra* note 96 and accompanying text.

141. See Michael Specter, *City Dwellers Want U.S. Park Funds to Go East*, N.Y. TIMES, July 27, 1992, at A1.

142. David Margolick, *As Drought Looms, Farmers in California Blame Politics*, N.Y. TIMES, June 24, 1994, at A1.

tal security are often attempts to change the community's identity in ways that make the MQE more inclusive of the needs of people discriminated against by community policy, the community must be ready to identify and respond to its biases. Therefore, education is a necessary part of responding to threats to environmental security; community members must become educated in the processes and policies of environmental management. This education, both formal and informal, will help to create a population willing to ensure that the governing body provides an MQE that is acceptable to all people.¹⁴³ The learning process also affords the governing body with opportunities to create or amend policy to best reflect environmental justice as the community perceives it. In the United States, a recent increase in the number of grassroots environmental groups is a broad societal response to perceived environmental discrimination. President Clinton's recent Executive Order emphasizing the need to counter environmental injustice¹⁴⁴ is perhaps a similar social barometer.

2. Threats to National Security

Of course, traditional notions of national security—where security is defined primarily as a country's preparedness to protect itself from aggression—frequently are also considered the responsibility of the domestic governing body. Such responsibility can include certain types of environmental security. Since at least the end of the Cold War, there has been some discussion of categorizing certain types of environmental degradation as threats to national security.¹⁴⁵ These threats take many shapes. They could be direct threats to

143. See discussion *supra* section II.B.2. Many organizations devoted to these ideals now exist. For example, in New York City the Christodora Foundation and the Environmental Education Action Coalition are just two of the groups devoted to educating children about environmental science and issues. Other organizations, such as the Environmental Action Coalition and the New York chapter of the National Audubon Society, have broader agendas which include promoting environmental awareness.

144. See *supra* note 101 and accompanying text.

145. See *Environment Now International Issue*, *supra* note 3; Oppenheimer, *supra* note 3; Lewis, *supra* note 3.

preparedness, such as the realization that it will require enormous diversions of money and effort to remediate the numerous hazardous waste sites that the United States military has created at its many military bases.¹⁴⁶ They can come from the knowledge that the country's environmental policies, while benefitting citizens in the short term, may weaken the country's strategic position in the long term.¹⁴⁷ They can even come from the vast resources and efforts it will take to respond to environmental degradation in less-industrialized countries if help is not forwarded now to help develop environmental management in those countries.¹⁴⁸

It is this more traditional understanding of domestic security that appears to have moved President Clinton to establish the Office of Undersecretary of Defense for Environmental Security.¹⁴⁹ According to the new Undersecretary of Defense for Environmental Security, the goals of the Environmental Security Program are to ensure that the Department of Defense (DoD): complies with environmental laws; cleans up and reduces risk from contaminated DoD sites; is a responsible steward of DoD land; prevents pollution at the source whenever possible; promotes environmentally benign technologies; and protects the safety and health of both the military and civilians.¹⁵⁰ This new focus "incorporate[s] sound environmental practices into DoD's operations in order to protect the environment and avoid future costs."¹⁵¹

146. See Robert Bryce, *Spit-and-Polish Military Looks at Its Own Big Messes*, CHRISTIAN SCI. MONITOR, June 14, 1994, at 3; *White House Announces Formation of Interagency Cleanup Policy Group*, Nat'l Env't Daily (BNA), May 11, 1994; Gary Lee, *'Green' War Waged at Pentagon Amid Military Drab*, L.A. TIMES, May 1, 1994, at A33.

147. See, e.g., Matthew L. Wald, *After 20 Years, America's Foot Is Still On the Gas*, N.Y. TIMES, Oct. 17, 1993, at E4.

148. See Oppenheimer, *supra* note 3; Lewis, *supra* note 3.

149. See *Senate Appropriations Hearing on FY95 Defense Appropriations*, (Testimony of Sherri Goodman, Deputy Undersecretary of Defense), 103rd Cong., 1st Sess. (1994) [hereinafter *Senate Appropriations Hearing*]; Lee, *supra* note 140.

150. *Senate Appropriations Hearing*, *supra* note 149.

151. *Id.*

Much of what has been called "environmental terrorism" can also be understood to be a threat to domestic environmental security in the more traditional sense. For example, during the late 1980s, a guerrilla group in Colombia attempted to undermine the authority of the government by repeatedly blowing up the nation's largest oil pipeline, spilling more than 600,000 gallons of oil into east Andes wetlands.¹⁵² At least from the Kuwaiti point of view, Iraq's attack on Kuwaiti oil wells and wetlands was a direct challenge to the governing body's authority and ability to control natural resources within the parameters of Kuwait. Such challenges almost always would be seen, at least by the governing body, as threats to environmental security.¹⁵³

D. Refining MQE to Recognize Intracommunity Aspects of Environmental Security

Because most people rely on at least two governing bodies to ensure different aspects of their quality of environment—those associated with the local and domestic communities—the governing bodies at both levels of government need to be clear about which natural resources will be managed by which governing body. The process of drawing boundaries between the obligations of the different communities is one of social and political evolution; as each community's environmental management responsibilities are included in that community's identity, a domestic culture encompassing all of the local communities' and the domestic community's identities is forged.¹⁵⁴ This domestic culture re-

152. See James Brooke, *Colombia Rebels Turn to Ecological Terrorism*, N.Y. TIMES, Oct. 29, 1990, at A8.

153. See Tod Robberson, *Mexicans Rage Over Pollution; Injury of 10-Year-Old Draws Out Protesters*, WASH. POST, Dec. 24, 1993, at A10; *Judge Uses Ruling on Rice Mill to Assail Environmental Terrorism*, Int'l Env'tl. Rep. (BNA), July 15, 1992 at 474; *Existing Ground Water Program Authority May Be Sufficient*, EPA Administrator Says, Env't Rep. (BNA), Feb. 2, 1990, at 1710.

154. In the United States, where the federation supports shared responsibility between the federal and state governments, the interplay of obligation has been examined in detail. Interpretations of the United States Constitution in case law (at least from *McCulloch v. Maryland*, 17 U.S. 316 (1819), through *Erie R.R. v. Tompkins*, 304 U.S. 63 (1938)), in legislation, and in public understand-

flects the obligation that the society as a whole feels towards providing a certain quality of environment to every member of that society.

The result of domestic culture building is that the identity of each community includes a reliance on a division of responsibility for community members' well-being. Specifically as it relates to environmental management, each community's MQE includes deference to the other relevant community's right to manage certain natural resources. The enactment of national environmental laws seeks to codify this process. For example, the CAA divides responsibility for managing the United States' air resources between the federal government and the states; the federal government is responsible for setting the standards to be met by each state,¹⁵⁵ while the states are responsible to achieve those goals by establishing SIPs.¹⁵⁶ Most communities, therefore, are part of federated systems that function to ensure an adequate quality of environment for each community member. A properly structured federation, as mentioned in section II.A.1.b. above, may allow proper representation without trampling on the rights of those who are not of the majority. Beyond this necessary goal, federated systems, because they may effectively reflect both local interests and national unity, can be empowering for domestic society as a whole.¹⁵⁷

In summary, a governing body wishing to ensure environmental security must do at least two things. First, it must seek to promote community-appropriate, environmentally-just environmental management. This goal is achieved by engaging in a learning process that includes being sensitive to the concerns of the representatives of nonmajoritarian

ing, has delimited which community's rights are the most relevant in a given situation.

155. *See, e.g.*, 42 U.S.C. § 7409 (1994).

156. *See, e.g.*, 42 U.S.C. § 7410 (1994).

157. For example, the environmental movement in the United States has benefitted greatly from its diversity as well as its unity on many issues. This important mix of characteristics has led to a situation where political coalitions can relatively easily be formed, and internal differences in opinion can both be put aside when necessary as well as used to spur greater refinement of arguments and ideals.

groups within the community and then altering the environmentally discriminatory policies of the community to protect the needs of all community members. Second, the governing body must internalize the ramifications of operating within a realm of federated environmental management. This means that it will have to engage in a process of identity refinement that potentially includes ceding some of its governing responsibility to another governing body.

Each community's MQE is the threshold against which community members judge the extent to which they are being treated in a way consonant with the identity of the community. Because each community attempts to maximize its environmental security, the two lessons gleaned from this part might be used to refine the definition of MQE in the following way:

The Minimum Quality of Environment (MQE) is the amount and type of benefits of environmental management that must be maintained for a given community to maintain its identity. This measurement reflects an effort to increase the well-being of community members within that identity by achieving community-appropriate, environmentally-just environmental management, and by ceding environmental management responsibility to other communities, when such ceding would be in the community's best interest.

This definition of MQE more specifically outlines the pressure points that might lead to threats to the environmental security of a community. It also emphasizes that maintaining environmental security is closely tied to promoting justice. As long as environmental discrimination exists within a community, there is a potential threat to that community's environmental security. When the community manages its environment for the well being of all of its members in a nondiscriminating way, then the community recognizes and promotes community-based environmental justice.

IV. Intercommunity Aspects of Environmental Security

As long as some of the community's natural resources originate from outside of the community, the maintenance of environmental security will be greatly influenced by factors beyond the complete control of the governing body. This lack of control makes the governing body of any community that is dependent on a foreign source of natural resources also vulnerable to instability.¹⁵⁸

There are primarily two contexts in which governing bodies respond to the vulnerability caused by potentially unassured flows of intercommunity natural resources. If the community in question is part of a federated system of communities, such as would be one state of the United States, there may be a larger context of law that governs intercommunity environmental management. In this case, the communities theoretically have established an equilibrium of responsibility for environmental management that operates within the context described in section III.C. But, as mentioned above, even in a federated regime certain natural resources are managed at a more local level; even smaller communities within larger political entities¹⁵⁹ may have intercommunity needs.¹⁶⁰

The other context in which modern governing bodies engage in intercommunity relations with respect to environmental management is international relations. While it might be argued that the presence of international law effec-

158. See generally discussion *supra* part II.

159. See *supra* notes 13-15 and accompanying text. Given the definition of community, two communities may exist within a larger community. Even in this case, the smaller communities are still responsible for maintaining the community-specific MQE of their members.

160. Conceptually, a community that makes up a component of a federated community would have some (perhaps most) of its traditional environmental management needs met by the larger community. However, the kinds of natural resources to which the local governing body must ensure access in order to promote the community's identity may well include some over which the local governing body has little control. Thus, part of the community's identity would be determined by the ability of the governing body to ensure access to natural resources that originate outside of its borders.

tively creates a federation of nations, and the two contexts just mentioned are actually one, the differences between international and federated systems of governance are great enough to ensure that the parallel is not a complete one.¹⁶¹ Indeed, the unique considerations of international relations have precipitated a jurisprudence the scope of which ranges from realist visions of discrete, self-focused, Hobbesian countries,¹⁶² to those of state moralists, institutionalists, and cosmopolitanists.¹⁶³

While various theorists assert differing descriptions of how communities interact in a world characterized by the increasing economic interdependence of all types of communities¹⁶⁴ and by transboundary environmental degradation,¹⁶⁵ it is necessary to determine whether such interaction includes intercommunity obligations with respect to environmental management. If such obligations exist, then a credible theory of environmental security should describe the role of such obligation within each community's identity.

A. The Relevance of Environmental Security to Traditional Intercommunity Relations

If each community's environment was based on natural resources solely acquired from within its own parameters of control, then a fully empowered governing body might be able

161. A federation presumes an overarching governing body; the lack of such a body is a well-recognized characteristic of international law. See, e.g., Anthony D'Amato, *Is International Law Really Law?*, 79 NW. U. L. REV. 1293 (1985); Louis Henkin, *The Politics of Law Observance*, in *HOW NATIONS BEHAVE* 39 (2d ed., 1979). However, to say that the parallel will never be complete is not the same as saying that it is impossible to judge the legitimacy of various forms of government. For an interesting discussion of this question, see generally LEA BRILMAYER, *JUSTIFYING INTERNATIONAL ACTS* (1989). See also FRANCK, *supra* note 52.

162. See generally MICHAEL J. SMITH, *REALIST THOUGHT FROM WEBER TO KISSINGER* (1990).

163. Cosmopolitanists downplay or dispute the importance of state boundaries. Instead, they tend to rely on the existence of a "group" that provides context to interpersonal morality. See Andrew Oldenquist, *Loyalties*, 79 J. PHIL. 173 (1982).

164. See generally JIM MACNEILL ET AL., *BEYOND INTERDEPENDENCE: THE MESHING OF THE WORLD'S ECONOMY AND THE EARTH'S ECOLOGY* (1991).

165. See discussion *infra* section IV.B.1.

to completely control the community's environmental management. However, few communities are natural resource self-sufficient; most governing bodies are beholden to factors beyond their control to ensure the quality of the community's environment.¹⁶⁶

Furthermore, beyond the simple acquisition of natural resources, a community's MQE is based in part on aspirational, practical, and exploitative intercommunity interaction. A community's MQE may be informed by the aspiration to have a standard of living similar to that of another community. Other interactions between communities could be called practical considerations. To facilitate and ensure the continued importation of natural resources, the community needs to maintain relations with other communities that will allow this objective.¹⁶⁷ Some interactions between communities, with respect to environmental management, might be exploitative.¹⁶⁸ These are situations where one community uses political or economic power to take natural resources from another community against the originating community's will.¹⁶⁹ The result of such interactions between communities might be the shifting of one community's MQE towards a standard that cannot be achieved within the com-

166. See discussion *supra* section II.A.1.b.

167. In the international context, this might include the maintenance of "friendly nation" treaties, such as treaties of friendship, commerce, and navigation. The United States is a party to over two dozen treaties that recognize such obligations, see, e.g., Treaty, Apr. 2, 1953, U.S.-Japan, 4 U.S.T. 2063; Treaty of Friendship, Commerce, and Navigation, Aug. 23, 1951, U.S.-Israel, art. VIII(1), 5 U.S.T. 550, 558; Treaty, Aug. 3 - Dec. 26, 1951, U.S.-Greece, art. XII(4), 5 U.S.T. 1829, 1857.

168. The line between reasonable and exploitative community interactions is not a clear one. While there is not room here to join the important debate over the extent to which intercommunity morality is affected by "cultural relativism," see *infra* note 181, it is reasonable to conclude that the line between reasonable and exploitative community interactions is in large part determined by the governing philosophy of the community making the determination.

169. In the international context, this description parallels some colonial practices, see, e.g., Jonathan Turley, "When in Rome": *Multinational Misconduct and the Presumption Against Extraterritoriality*, 84 Nw. U. L. Rev. 598 (1990); Greta Gainer, *Nationalization: The Dichotomy Between Western and Third World Perspectives in International Law*, 26 How. L.J. 1547 n.26 (1983), and even some practices associated with neocolonialism. See *supra* note 31.

munity's current economic or political organization. This situation may pose a direct threat to environmental security.¹⁷⁰

Given the potential for intercommunity influences to threaten environmental security, it is reasonable to conclude that intercommunity interactions might implicate shared responsibility. There might be two reasons why one community would feel an obligation towards promoting or maintaining the environmental well-being of another community: (1) the first community might believe that to promote another community's environmental security is the best way to assure its own access to natural resources; and (2) the first community might believe it has a normative responsibility to aid the other community. The motivation for the former reason is fairly clear, but the basis for the second is more difficult to fathom.

B. Expanding the Description of Environmental Security to Account for Intercommunity Obligation

Because environmental security has been defined in this article primarily in the context of a single community's needs, the self-promoting aspects of intercommunity relations appear to be obvious bases of intercommunity obligations. However, there may be other motivations for obligations to arise between communities. For example, beyond self-promotion, the most obvious compulsion for behavior is moral responsibility. Recently there has arisen a jurisprudence of international relations that addresses the possibility of intercommunity moral obligation.¹⁷¹ This discourse has in-

170. Such instability is sometimes seen in border problems between communities that have disparate MQEs. For example, illegal immigration flowing from natural resource-poor to natural resource-rich countries often can be attributed to disparate standards of living. While illegal immigration may result in instability in the natural resource-poor state, it may precipitate instability in the resource-rich country as well. See, e.g., John Aloysius Farrell, *Open Doors / Closing Minds*, BOSTON GLOBE, Feb. 23, 1992, at 61; Seth Mydans, *Border Near San Diego is Home to More Violence*, N.Y. TIMES, Apr. 9, 1991, at A20.

171. "Morality" usually refers to the obligations of individuals towards each other. One school of international jurisprudence—the so-called state moralists—analogue state actors to individuals, thus identifying an international morality that is presumed to be analytically equivalent to individual morality. The importance of state morality will be discussed at *infra* section IV.B.2.b.

tensified in recent years due to the increasing awareness, and consequent concern, about human rights violations and environmental degradation. Because this article is concerned with the allocational equity of natural resources, the argument here makes one of the necessary linkages between these two concerns.

1. Why a Basis for Intercommunity Obligation is Difficult to Discern

Because the social compulsion that usually gives rise to obligations seems to be lacking in the intercommunity context, the basis for intercommunity obligation is not obvious.

Perhaps the most widely recognized context for establishing obligation is the law. Legal obligation is based on the dictates of government backed by police power; traditionally, law is effective to the extent that it is backed by coercion feared by all relevant parties. However, this legal positivism relegates obligation to the government's political boundaries.¹⁷² Positivists would claim that the boundaries of the communities addressed in this article approximate the scope of the community members' legal responsibility.¹⁷³ Even the existence of a contract, which might provide an exception to legal positivism by allowing the dynamic of mutual benefit to substitute as a basis for obligation, assumes the presence of supervening law.¹⁷⁴ Even though many theorists believe that

172. For a description of the basis of positivist thought see ANTHONY D'AMATO, *JURISPRUDENCE: A DESCRIPTIVE AND NORMATIVE ANALYSIS OF LAW* 118-22 (1984); J. RAZ, *THE AUTHORITY OF LAW: ESSAYS ON LAW AND MORALITY* 37-77 (1979); H.L.A. Hart, "Legal Positivism," in 4 *ENCYCLOPEDIA OF PHILOSOPHY* 418 (P. Edwards ed., 1967).

173. Of course, this is true only to the extent that communities do not enter into legal relationships within the rubric of larger legal entities. Communities that are members of federal systems may have legal obligations to "peer" communities. In this situation there is not an absence of "law," because all parties accept a single system of governing norms.

174. Contracts between members of different communities are legitimate to the extent that the communities are part of a federation governed by enforceable legal norms which provide for the interpretation and enforcement of contracts. It is because there is no comprehensive enforcement mechanism in the international context that contracts between residents of different countries must clearly specify which law governs the interpretation of the document. And

the basis of legal obligation is not so clearly dependent on a power model of government,¹⁷⁵ it is not unreasonable to conclude that the lack of traditional enforcement mechanisms makes intercommunity legal obligations fundamentally different from intracommunity obligations. This is not to suggest that intercommunity obligations are not relevant or compelling; it is only to accept that legal compulsion may not greatly aid this attempt to find a context for a broad intercommunity obligation.

The positivist suggestion that legal responsibility fails to exist where there is no compulsion is most strongly asserted with respect to international relations.¹⁷⁶ As opposed to federated systems, there are few obligation-enforcing international institutions¹⁷⁷ that can compel many communities or businesses to cede power to them in return for the supposed benefits of affiliation.¹⁷⁸ Even the United Nations system, which holds promise for promoting many environmental ideals, would have great difficulty relying on the Security Council's enforcement power to stop environmental degradation.¹⁷⁹ As a consequence, despite the obvious benefits of pro-

even when contracts do so specify, enforcement is not as assured as it is in the domestic or local context.

175. See citations *supra* note 155.

176. It is in part for this reason that international relationships are the most difficult intercommunity context in which to ensure access to natural resources. Other reasons international relationships may present unique problems for intercommunity environmental management are examined at the discussion *supra* section II.B.

177. There has been some movement since its chartering in 1945 to vest in the United Nations formal enforcement powers. See, e.g., U.N. CHARTER art. 1, ¶ 1, and U.N. CHARTER art. 2, ¶ 6. Currently, however, the United Nations system operates pursuant to a loose social contract that allows the world body to remain involved in international affairs only to the extent that its objectives and activities do not diminish the strength and sovereignty of its members.

178. While it is certainly true that trade partners may work together for long enough to forge trust, it is understood that each such partnership must be forged anew. The most recent round of negotiations in the General Agreement on Tariffs and Trade is but one example of the difficulty of forging any type of unified system in the face of state self-interest. See Tom Walker, *U.S. Fails to Make Progress in Trade Talks with Europe*, THE TIMES (London), Sept. 2, 1992, (Business). See also John Yochelson & Amy Kaslow, *The Jobs Challenge of the World's Rich Countries*, WASH. Q., Autumn 1994, at 123.

179. See Tinker, *supra* note 3.

moting prudent environmental management, international discourse has traditionally relegated environmental concerns to a secondary status.¹⁸⁰

Of course, a legal system is only one manifestation of community. Responsibility may arise from various systems instituted to meet common needs and objectives. The goal, therefore, becomes to determine whether any such system has developed. Unless a recognized system of common needs and objectives can be discerned or formulated, intercommunity relations will be relegated to contractual relationships narrowly premised on compulsion and doubt.

2. International Jurisprudence

Because the international context may be the most difficult one in which to ascertain intercommunity responsibility, it is here that a basis for intercommunity environmental responsibility must be proven. International jurisprudence focuses on forms of obligation that exist between international actors. Specifically, whether the basis for such a relationship exists between states (or, for that matter, at all), informs the determination of the type of obligations that one state or individual owes to an individual in another state.¹⁸¹

a. Conceptions of International Obligation

International jurisprudence centers on the philosophical argument over whether there can be moral compulsion outside of state borders. At one extreme, legal realists sug-

180. For example, the United Nations Environment Programme, an organization established in 1972 to promote international environmental protection and awareness, has had mixed successes, owing in part to its inability to instigate long-range, significant policy reform. LYNTON K. CALDWELL, *INTERNATIONAL ENVIRONMENTAL POLICY: EMERGENCE AND DIMENSIONS* 75-81 (1984). However, events in the past few years suggest that environmental issues might be attaining a more central role on the international agenda. See Lee H. Hamilton, *A Democrat Looks at Foreign Policy*, *FOREIGN AFFAIRS*, Summer 1992, at 32; Cf. Emily T. Smith & Geri Smith, *The Long Road From Rio*, *BUS. WEEK*, June 8, 1992, at 29; *Environment Now International Issue*, *supra* note 3. See also discussion *infra* part V.

181. For the sake of the following discussion, the words "state" and "country" will be used interchangeably. See also *supra* note 125.

gest that moral obligation does not exist; as far as the individual state is concerned, international relationships are entirely based on the utility of international interaction.¹⁸² While realism might be less or more accurate as a description of political reality with respect to certain subjects of international relations, it does little to further a discussion about international moral obligation in a world with an increasing occurrence of international cooperation and sacrifice with respect to environmental management issues.¹⁸³

The existence of international moral obligation does find a voice in less Machiavellian theories. Traditional international law, and the lawyers and scholars that promote it, tend towards a position of state moralism. This is the conception of international relations that equates states to individuals, finding the equivalent of interpersonal morality on the international plane.¹⁸⁴ Following this construct, states have obligations to other states to the same extent that individuals do to other people.¹⁸⁵ As part of the logical end of the state moralist theory, individuals have little role in the construct; they are represented fully by the state, which is the only true international actor.¹⁸⁶

Contrary to state-focused theorists, cosmopolitanists base their point of view on the importance of the individual in international relationships. They believe that the morality

182. Realists understand international relations as a system of utility calculus based on self (i.e., the interest of the individual country) promotion. See, e.g., Joseph M. Grieco, *Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism*, 42 INT'L ORG. 485 (1988).

183. One of many examples of such international cooperation is the increased coordination of environmental organizations around the world. See, e.g., James Brooke, *Oil Drilling Weighed in Peru Nature Area*, N.Y. TIMES, July 2, 1991, at C4.

184. See generally BRILMAYER, *supra* note 155, at 28-34.

185. *Id.* For example, it would be wrong, in a normative sense, for a state to deceive, steal, and in other ways act dishonestly within the state moralist conception of international relations.

186. Thus, there are few ways that individuals may promote their own interests at the United Nations. Instead, state moralism seeks to protect the rights of all people by promoting a system of international morality that should, theoretically, be reflected in the actions of the state actor domestically. See generally Peter Butler, "The Individual and International Relations," in THE COMMUNITY OF STATES 115 (James Mayall ed., 1982).

that exists between people should not be hampered by the existence of state boundaries.¹⁸⁷ To the cosmopolitanist, morality is universal; the possibility of universal rights is both reasonable and culturally independent.¹⁸⁸ Therefore, while a state moralist believes that state autonomy is a primary consideration in the attainment of peaceful international relations, this deference would be insupportable to a cosmopolitanist. Although cosmopolitanist arguments are increasingly finding a forum in international law, and will be revisited in more detail in part V below, international relations are currently ordered by concepts of state interaction. Therefore, the rest of this part will focus on state-based theory.

Between those that believe state borders to be primarily impermeable, and those that understand state borders to be mostly irrelevant, are theorists that acknowledge the world to be composed of various political actors, including various states, individuals, and organizations. In response to this diversity, these theorists recognize the need to describe complex, modern, state relationships. It is for this reason that I call such theorists "descriptivists." The descriptivists are less concerned with locating or disparaging morality than they are with establishing a basis for sustained political relationships. Political scientists, who seek to describe quantitatively how the institutions of international relations work, might fit into this category.¹⁸⁹ Another group of descriptivists are those that straddle the line between political science and law. This group tends to search for importance in such heady no-

187. Oldenquist asserts that the important considerations in determining morality are those of group loyalty, *see supra* note 157. *See also* Charles R. Beitz, *Cosmopolitan Ideals and National Sentiment*, 80 J. PHIL. 591, 599 (1983).

188. Cultural relativity is a theory that holds culture to be the "sole source of the validity of a moral right or rule." JACK DONNELLY, *UNIVERSAL HUMAN RIGHTS IN THEORY AND PRACTICE* 109 (1989). Thus, the theory would seem to contradict cosmopolitanism, which implies universal morality, such as that usually supported by promoters of human rights. *See also supra* note 162.

189. Examples of this approach include the work of regime theorists such as Oran Young, *see, e.g.,* Oran Young, *Regime Dynamics: The Rise and Fall of International Regimes*, 36 INT'L ORG. 277 (1982), as well as game theorists such as Robert Jervis, *see, e.g.,* Robert Jervis, *Realism, Game Theory, and Cooperation*, 40 WORLD POL. 317 (1988).

tions as legitimacy.¹⁹⁰ A slightly different group might be called "pragmatists." These are theorists that describe international law primarily as the name for a set of institutions that needs to exist in the modern world.¹⁹¹

A characteristic of descriptivists is that all of their theories acknowledge, to varying extents, that state international obligation is at some level motivated by individual conceptions of appropriate behavior. While it is not always clear if the behavior prompted by that motivation should differ if the subject of the behavior is not a citizen of the state actor, it is clear that there is some compulsion to act in a way that can reasonably be described as "moral." Given some type of recognized morality, there exists the sole step of determining a form for the morality to take with respect to international environmental relations.

Seeking the basis of international moral obligation, Charles Beitz has argued that even if states do not always have to act morally, this does not mean that international morality does not exist.¹⁹² He makes an argument that motivation for the international morality of states may be based on the morality of individuals.¹⁹³ Beitz disputes the traditional reliance on a Hobbesian state of nature as a reasonable starting point for developing a theory of international moral-

190. See, e.g., FRANCK, *supra* note 52. See also BRILMAYER, *supra* note 155. In her book, Professor Brilmayer promotes a theory of legitimacy she labels the "vertical thesis." This thesis asserts that state actions with respect to noncitizens are legitimate to the same extent as with citizens. Thus, any given international behavior should be analyzed within the rubric of the specific state's governing political theory.

191. Pragmatists sometimes sound like apologists for modern international law. A favorite argument of these writers is that because states act as though there are international legal obligations anyway, theorists should spend more time discussing more pressing issues. See, e.g., Henkin and D'Amato, *supra* note 155. Other pragmatists hold that existing institutions should be used as necessary to achieve the desired end (usually a search for peace); the institutions' imperfections should not be obstacles to the quest for legitimate international ends.

192. BEITZ, *supra* note 107, at 64-66.

193. This reliance on individual morality is very unlike the metaphor that is the basis of state moralism. Beitz's belief in individual morality as the essential legitimating force of state behavior in many ways parallels Brilmayer's vertical thesis. See *supra* note 184.

ity.¹⁹⁴ Instead, he accepts an international version of Rawls' original position as the basis for international obligation.¹⁹⁵ This theoretical model serves well as a foundation for a modern theory of intercommunity natural resource allocation.

b. Intercommunity Natural Resource Allocation and Environmental Justice

It is a weakness of traditional international political theory, Beitz suggests, that issues of allocative justice have played only a minor role in the formal discourse.¹⁹⁶ He argues that the enormous disparities in standards of living throughout the world necessitate that any reasonable conception of international moral responsibility must emphasize an obligation of affluent states to transfer resources to the less affluent.¹⁹⁷ Following the argument already sketched in this article, promoting the positive environmental management efforts of such a community becomes part of the responsibility of those outside of the community in question. This conclusion is especially true because lack of adequate environmental management is often both a symptom and a cause of a less affluent state's economic weaknesses.¹⁹⁸

Following Rawls' lead, Beitz suggests that there is a contractarian basis for the existence of an international system of shared responsibility. He outlines an international original position where the individuals behind the veil of ignorance are the self-sufficient states Rawls assumed would gather.¹⁹⁹ At this conference the states would determine a series of principles that define international justice in the

194. BEITZ, *supra* note 107, at 35-50.

195. *Id.* at 129-36. See also discussion *supra* section III.A.2.

196. BEITZ, *supra* note 107, at 127.

197. *Id.*

198. See Thomas H. Tietenberg, *The Poverty Connection to Environmental Policy*, CHALLENGE, Sept.-Oct. 1990, at 26.

199. See RAWLS, *supra* note 108, at 378. Rawls' conception of international law is such that the justice produced by states (as opposed to individual people) gathering in the original position would be one that maximized "state justice." That is, it would be a world where "just domestic social orders might flourish." BEITZ, *supra* note 107, at 136. In a later chapter, Beitz expands Rawls' theory of justice to account for individual-based international morality. *Id.* at 143-53. See discussion *infra* section V.B.2.

same way that individuals would determine justice in smaller communities.²⁰⁰ While the topic of entitlement to natural resources is not discussed in Rawls' work, Beitz suggests that states in this original position would find natural resource allocation to be morally neutral.²⁰¹ Thus, states behind the veil of ignorance "would know that resources are unevenly distributed with respect to population, that adequate access to resources is a prerequisite for successful operation of (domestic) cooperative schemes, and that resources are scarce."²⁰² In this situation, the states would seek allocation of those resources according to Rawls' two primary principles: each state would have equal claim to a share of the total available natural resources, but if this allocation²⁰³ of natural resources would result in inequality, then an allocation must be determined that would provide the greatest benefit of natural resources to those least advantaged by the inequality.²⁰⁴

Rawls' and Beitz's reliance on a hypothetical original position, of course, relegates the chosen standards of justice to the realm of speculation. The principles so derived, though, do have both currency and legitimacy in modern international relations. The question of allocative justice was very much a focus of the United Nations Conference on Environment and Development (UNCED),²⁰⁵ where many of the ar-

200. BEITZ, *supra* note 107, at 134 (citing RAWLS, *supra* note 108, at 378).

201. The assertion of moral neutrality follows Rawls' claim about the distribution of natural talents in individuals. Rawls finds the endowment of natural talents to be "neither just nor unjust; . . . [this distribution is] simply natural facts. What is just and unjust is the way that institutions deal with these facts." RAWLS, *supra* note 108, at 102.

202. BEITZ, *supra* note 107, at 141.

203. Beitz does not attempt to describe how this distribution would be most efficiently undertaken. Specifically, he does not discuss whether states should get a share of the total natural resources based on population alone, if natural resource substitution is relevant or appropriate, or if the value of the specific natural resource to the population in question is an important variable for determining this initial distribution.

204. BEITZ, *supra* note 107, at 141. See also RAWLS, *supra* note 108, at 151.

205. UNCED took place on June 3-14, 1992. While many specific goals were envisioned, a central goal, with respect to aid for environmental protection, was generally to identify the rights from which citizens of less-industrialized states might benefit. See generally DON HINRICHSSEN, *The Earth Summit*, AMICUS J., Winter 1992, at 17.

guments posited by those who charge industrialized countries with engaging in neocolonialism,²⁰⁶ including the proponents of the New International Economic Order (NIEO), resurfaced.²⁰⁷ Furthermore, in response to the important question of from where financing for internationally dictated environmental protection will come, some philosophers have proposed specific methods and principles for allocating the burden of environmental management.²⁰⁸

206. See sources *supra* note 31.

207. The proponents of NIEO put forth their formal program in a series of documents in the mid 1970s. These included: "Declaration on the Establishment of a New International Economic Order" (1974), "Programme of Action on the Establishment of a New International Economic Order" (1974), and "Charter of Economic Rights and Duties of States" (1974). See generally UNITAR Document Service, *A New International Economic Order: Selected Documents, 1945-1975* (Alfred George Moss & Harry N. M. Winton comps., 1976). See also *supra* note 31.

208. For example, with respect to this challenge, the philosopher Henry Shue has proposed the following three principles of equity:

[1.] When a party has in the past taken an unfair advantage of others by imposing costs upon them without their consent, those who have been unilaterally put at a disadvantage are entitled to demand that in the future the offending party shoulder burdens that are unequal at least to the extent of the unfair advantage previously taken, in order to restore equality.

Henry Shue, *International Justice and Global Climate* 47, Address at the New York University Law School International Jurisprudence Colloquium (April 23, 1992) (on file at *Pace Envtl. L. Rev.*).

[2.] Among a number of parties, all of whom are bound to contribute to some common endeavor, the parties who have the most resources normally should contribute the most to the endeavor.

Id. at 57.

[3.] When some people have less than enough for a decent human life, other people have far more than enough, and the total resources available are [sufficiently] great that everyone could have at least enough without preventing some people from still retaining considerably more than others have, it is unfair not to guarantee everyone at least an adequate minimum.

Id. at 67.

See also Bernard P. Herber, *The Common Heritage Principle: Antarctica and the Developing Nations*, 50 AM. J. ECON. & SOC. 391 (1991); J.A. McNeely, *Common Property Resource Management or Government Ownership: Improving the Conservation of Biological Resources*, 10 INT'L REL. 211 (1991); A. Marvasti, *Conceptual Model for the Management of International Resources: The Case of Seabed Minerals*, 20 OCEAN DEVELOPMENT & INT'L L. 273 (1989); A. Kuflik, *Allocation and Ownership of World Resources: A Symposium Overview*, 23 J. VALUE INQUIRY 249 (1989).

While the adequacy of specific models of international obligation is beyond the scope of this article, it is possible to conclude that a theory of state obligation based on, and roughly equivalent to, the moral responsibilities of individuals can be formulated. Such a theory is not only possible, but is arguably a necessary corollary in situations of strong and growing interdependence.²⁰⁹ Thus, the two primary motivations for a community to ensure adequate environmental management in another community—practical necessity and moral obligation—are both possible under a state-based approach to international relations. While descriptivists leaning towards state moralism would emphasize the importance of ensuring good relations and, ultimately, practical access to the natural resources in question, theorists leaning more towards individual rights notions of international relations might include the increasing relevance of a moral obligation to aid other communities as a basis for that motivation.

C. An MQE for Intercommunity Relations

This brief discussion of international obligation leads to the conclusion that transboundary obligations may exist regardless of the existence of a formal, overarching governing body. Within the environmental context, these obligations are best understood to be ones that ensure equitable environmental management to members of communities linked by common environmental management concerns. That is, beyond the pragmatic need of one community to maintain stable trade partners, there may be connections between communities that make one community responsible for the well-being of the other. This is a responsibility to ensure that members of one community are not receiving a surplus of natural resources at the expense of members of another community that are suffering from need. This element of intercommunity justice, to an extent correlated with the respective governing philosophy of each community, is already

209. See discussion *infra* part V for a more complete discussion of the relevance of global interdependence to environmental security.

internalized as part of community identity and thus is already part of each community's MQE.

The implication of this discussion may be summarized as follows: if intercommunity responsibility does exist to the extent that the obligations of that responsibility are internalized as part of a community's identity, then resource allocational inequities should precipitate environmental insecurity in both communities. The community impoverished with respect to natural resources will become destabilized according to intracommunity aspects of environmental security, while the community which is linked to the natural resource-poor community should become destabilized because it is failing to meet the intercommunity objectives defined in its identity. This latter instability would be prompted and magnified by factors internal and external to the community, which would be reminders to the community that it is failing to help promote an environmentally-just relationship.²¹⁰

Taking into account intercommunity forces, MQE might be further refined as follows:

The Minimum Quality of Environment (MQE) is the amount and type of benefits of environmental management that must be maintained for a given community to maintain its identity. This measurement reflects an effort to increase the well-being of community members within that identity by achieving community-appropriate, environmentally-just environmental management; by ceding environmental management responsibility to other communities, when such ceding would be in the community's best interest; *and by recognizing ideals of proper intercommunity obligation, including, to some extent, the obligation to aid other communities in protecting their environments.*

210. Communities are reminded of such deficiencies by the same mechanisms by which their MQEs are influenced by foreign communities. See discussion *supra* section IV.A. See also discussion *supra* section II.B.2. Whether there is legal recourse for this failure is partially a function of the governing philosophy of the community.

This clarification of MQE emphasizes that a community's identity is tied to intercommunity relations. Whether the intercommunity aspect of identity mostly regards practical concerns of maintaining intercommunity natural resource flow, or is a result of an obligation to ensure environmental management in another community (or some combination of the two), failure of a community to meet the challenges of this identity can threaten environmental security.

This environmental security analysis can be used to describe many intercommunity relationships and phenomena. In the United States, national park land is a natural resource whose management is considered a part of the national identity.²¹¹ On the more local level, however, states often compete for federal funding to maintain the quality of locally situated national parks.²¹² Thus, the inability of New York State to provide access to such parks might be understood, within the context of New York's state-specific MQE, as a failure of the local governing body to meet the expectations of the people of New York. This intracommunity lack of access to national parks has caused concern and agitation that might be understood to be an intercommunity-motivated threat to the environmental security of both New York State and the United States.²¹³

There are, of course, many examples of intercommunity-motivated threats to environmental security in international relations. The events of the Persian Gulf War can now be understood as precipitating a series of environmental security threats. Iraq's incursion into Kuwait was a practical threat to the petroleum supplies of oil-dependent countries. The obvious vulnerability and potential of losing access to inexpensive oil, especially for the United States,²¹⁴ prompted concern amongst the dependent countries' governing bodies

211. For a discussion of the genesis and role of national parks in United States history and culture see JOSEPH L. SAX, *MOUNTAIN WITHOUT HANDRAILS* (1980); JOHN ISE, *OUR NATIONAL PARK POLICY: A CRITICAL HISTORY* (1961).

212. See Michael Specter, *City Dwellers Want U.S. Park Funds to Go East*, N.Y. TIMES, July 27, 1992, at A1.

213. *Id.*

214. See John C. Danforth, *Not By Sanctions Alone*, WASH. POST, Jan. 11, 1991, at A21.

that instability at home would result. This instability led to the concerted action²¹⁵ that later became the war.²¹⁶ However, beyond the practical concerns that motivated the response to Iraq's aggression, Iraq's behavior at the close of the war was both an intracommunity-motivated and an intercommunity-motivated threat to environmental security. Beyond the intracommunity instability that the trashing of the environment caused in Kuwait and Saudi Arabia, the environmental security of industrialized countries, such as the United States, was threatened. The releasing of large quantities of petroleum into the Persian Gulf and the burning of Kuwaiti oil fields by the retreating Iraqi troops created an immediate danger to the environment of the Persian Gulf region that was condemned around the world.²¹⁷ This environmental destruction not only imperiled the trade of natural resources from the Mideast to the rest of the world, but also posed a threat to human life and health that seemed morally objectionable. It is not inconceivable that if the condemned behavior did not stop, the governing bodies of countries, even those outside of the region, would be motivated to respond.²¹⁸ To the extent that countries would, and did, respond to the region's events which threatened the local environment, their actions were an example of an intercommunity-motivated threat to environmental security.

This analysis of the Persian Gulf events may apply to other incidents of "environmental terrorism." Defying the national government and a United Nations moratorium, the Khmer Rouge has survived in the rainforests on the Thai-Cambodian border by decimating the forests there and selling concessions to log the timber and mine whatever minerals

215. See Bob Hohler, *N.H. National Guard Unit on Active Alert, Crisis in the Middle East*, BOSTON GLOBE, Nov. 13, 1990, at 13.

216. War, one very strong reaction, is not the only possible response to threats to environmental security. However, in some cases, military action might be an effective way to ensure stability. This, apparently, was one goal of the United States in the Persian Gulf.

217. See Editorial, *War's Enduring Ecological Scars*, L.A. TIMES, Nov. 8, 1991, at B6. See also *supra* note 1.

218. But see Tinker, *supra* note 3.

can be found in that region.²¹⁹ This abuse of Cambodia's natural resources can be understood to be a threat not only to Cambodia's environmental security (because Cambodia's governing body is shown not to be able to manage Cambodian natural resources), but also to the environmental security of all those who rely on, or support, the protection of the Cambodian rainforests.²²⁰

Another example of an intercommunity influence that could threaten environmental security is that associated with the current discussion of international obligations to less-industrialized countries with respect to responding to the threat of global climate change. A strongly articulated message of UNCED was that as long as some nations suffer the effects of natural resource depletion based on historically-based disparities of power, the benefitting industrialized countries retain an obligation to at least lessen the cost that such a country must endure to comply with any international treaty regime.²²¹ As a general principle of how this obligation could be operationalized, Henry Shue has proposed with respect to the potential cost of global climate change that "[p]oor nations ought not to be asked to sacrifice in any way the pace or extent of their own economic development in or-

219. See Shenon, *supra* note 33.

220. See *id.* Another example of a similar dynamic might be the results of war-inflicted famine. As it was in the recent plight of Somalia, famine is often more a result of inoperative political systems than of a poor growing season. See Naser, *supra* note 33. When conflict causes a governing body to be unable to provide food to the members of the community, there is bound to be instability caused by intracommunity forces. Environmental security in other communities is threatened by intercommunity forces to the extent that members of those other communities force their governing bodies to aid the starving members of the famine-plagued community.

221. While the exact parameters of this responsibility shift with the resources and historical facts in question, the premise of this primarily moral claim is that because resources were taken in an exploitative way, it is impermissible in the context of modern international environmental trade negotiation to ask less industrialized nations to sacrifice as much as those who have benefitted from industrialization. See *supra* note 201. 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 take account of "the circumstances and particular requirements of developing countries." Vienna Convention for the Protection of the Ozone Layer, May 2, 1985, preamble, 26 I.L.M. 1529.

der to help prevent the climate changes set in motion by the process of industrialization that has enriched others."²²² If the moral strength of this argument gains currency, and becomes internalized in the identity of countries as the appropriate way for communities to treat each other with respect to global environmental management, then countries will have in effect accepted an obligation to promote environmental security.

There does seem to be one major difference between intercommunity aspects of environmental security in the federated as opposed to the international context. A community that is part of a larger, federated community shares a system of unifying beliefs—as indicated by the existence of an intercommunity governing scheme—with the other component communities that provides the basis for intercommunity obligation. This unifying context does not, and given political and historical differences between various world communities probably cannot, exist strongly on the international level. The lack of a recognized international governing body emphasizes the unique challenge of conceptualizing environmental security on a scale larger than the domestic community.

Even given some potential for a responsibility-based argument for an obligation to ensure environmental security, it is difficult to imagine that infractions of these intercommunity obligations would significantly destabilize a given local or domestic community. While the desire for adequate environmental management might more or less be part of the factors that lead to social unrest, failure to aid in the environmental management of needier communities probably will not destabilize a community rich in that natural resource, regardless of the responsibility it feels.²²³ This does not, how-

222. Henry Shue, *The Unavoidability of Justice*, in *THE INTERNATIONAL POLITICS OF THE ENVIRONMENT: ACTORS, INTERESTS AND INSTITUTIONS* 373, 394-95 (Andrew Hurrell & Benedict Kingsbury eds., 1992). Note that this principle acts philosophically as the general rule from which the specific principles discussed in *supra* note 201 are derived.

223. Of course, despite the absence of motivation based entirely on self-interest, the United States did expend resources in Somalia and Ethiopia in the recent past to respond to the inability of the governing bodies of those countries to provide food to the citizenry.

ever, mean that intercommunity aspects of environmental security are irrelevant, or even minor. As was described above, there are many practical reasons why the maintenance of intercommunity natural resource flow is crucial to a community's environmental security. This compulsion for intercommunity obligation remains strong. It just means that country-based moral motivation to promote the environmental security of another community remains of limited consequence.

V. Environmental Security: The Obligation of Global Environmental Management

Throughout this article, the possibility of a global community has suggested a subtext of considerations. If a community composed of all people exists, then, to some unexplored extent, global environmental security would correlate with a global MQE. This MQE would represent a minimum quality of environmental management that every person should be able to expect. Of course, positing a community does not, without more, prove either its existence or the existence of globally accepted principles of interaction with respect to the environment. However, if phenomena characteristic of community can be recognized with respect to global environmental management, then the existence of a global community might seem more plausible. If the participants in global environmental relationships consider themselves part of a single community, then the evidence appears even stronger.

A. Conceptualizing a Global Environmental Community

If the world could be conceptualized as a single community that has a community-specific MQE, an argument following the reasoning in this article might suggest that there should be no difference between the dynamic of global environmental security and that of any other community. On further reflection, however, it becomes apparent that a global community would function differently, with respect to envi-

ronmental security concerns, from any of the communities previously discussed. This is the case for two reasons.

First, a global community would have different characteristics, as a community, than any of the other communities on which this article has focused. So far communities have been defined, in part, by their differences with other communities.²²⁴ By contrast, the world community would include all cultures, histories, and political theories; the traditional boundaries of community would fail to exist. Also, because the definition of community is premised on commonality,²²⁵ there must be some basis for believing that there is a common set of assumptions about living in the world that would act as the community-unifying themes. The world lacks a comprehensive governing body; basic principles of international relations—such as autonomy and nonintervention²²⁶—support separateness.²²⁷

Second, because of these differences, the global community would be unlike any other community with respect to environmental security analysis for several reasons. The lack of another community from which to obtain natural resources indicates that global environmental security will have to be conceptualized as some sort of wholly intracommunity interaction. Also, the lack of outside communities to exert external influences on the community's MQE leaves a hole in the theory of environmental security. Finally, the lack of formal governance in the world community has at least two ramifications: the lack of governance makes environmental management all the more difficult, and where no formal governing body exists, there is no way to ensure accountability to the individuals that make up the community.

224. See *supra* notes 13-15 and accompanying text.

225. *Id.*

226. See U.N. CHARTER art. 2.

227. This is not to say that modern international law fails to identify common needs and aspirations of states. Indeed, the United Nations Charter is a testament to a belief in commonality. However, the belief that states have common needs is different from the assertion that all people are part of a single community that includes a single moral obligation with respect to certain aspects of environmental justice and security.

Ironically, these seeming deficiencies may be the fount from which a comprehensive theory of environmental security flows. If a comprehensive environmental security exists, then it will have to reflect an understanding that the world has limited natural resources and thus the human population must focus on the management and just management of those resources if it is to ensure a healthful, collective existence.²²⁸ But does the acknowledgement of a need for coordinated environmental management imply that a global community exists? The actual existence of a global community, following the reasoning expounded here, should be premised on a set of shared values and concerns with respect to the management of certain natural resources. These common concerns must, in turn, give rise to common theories of responsibility. In short, for a global environmental community to exist, there must be a demand for and movement towards a global environmental ethic.

B. Examining the Motivation for and the Rise of a Global Approach to Environmental Management Problems

If the international system currently does not support collective sacrifice for the sake of the collective good, the impetus for the development of a global environmental ethic needs to be strong. In the past few years the unique nature of international environmental management problems has shown that certain of these problems demand a coordinated response from a group of countries, or possibly from all countries. The potential consequences of not so responding may be the catalyst necessary to precipitate a global evaluation of responsibility with respect to environmental management. Indeed, evidence of the comprehensive social inquiry that

228. The apparent limitlessness of the natural resource base has, for many years, provided philosophers with a context in which to define and describe property rights and, ultimately, human interaction. Locke's proviso (qualifying his theory about the creation of private property with a dictate to ensure that there are ample resources left for all others who likewise want to create property) and Hobbes' theories about the economic basis for colonialism are two influential ideas that are challenged by potential limits to natural resource abundance.

would lead to the development of a global environmental ethic²²⁹ may be found in some current events in international environmental law.

1. The Singular Nature of Global Environmental Management Problems: Why a Coordinated Response is Necessary

While adverse effects of large-scale environmental mismanagement have been apparent for many years, the potential for damage has come into relief in the recent past. In 1986, an accident at a nuclear reactor in the town of Chernobyl, then part of the Soviet Union, caused a release of nuclear pollution that contaminated regions adjoining the accident site.²³⁰ The accident precipitated the modern age of transboundary environmental concern.²³¹ Also in the recent past, in the mid and late 1980s, the world became aware of a weakening in the stratospheric ozone layer over Antarctica, and the potential effects that this development portends.²³² The effects of global climate change that might occur if so-called greenhouse gases build up in the atmosphere is another global environmental challenge. Beyond these, and many other possible human-made disasters, the media has educated the world to the ravaging effects of starvation, malnutrition, agricultural wasting, natural resource destruction, and other symptoms of poverty that in part were exacerbated

229. See *supra* notes 69-71 and accompanying text.

230. Vincent J. Schodolski, *Chernobyl: A Cancerous Legacy in Belarus*, CHI. TRIB., Feb. 2, 1992, at 1.

231. Many other environmental accidents, of course, have occurred that could have had transboundary effects. In 1984, the accidental release of methyl isocyanate from a pesticide plant in Bhopal, India, caused the death of some 2600 people and seriously injured 30,000-40,000 others. *Union Carbide Ordered To Pay \$193 Million To Bhopal Victims by Indian Appeals Court*, Int'l Env'tl. Rep. (BNA), Apr. 13, 1988, at 209. Similarly, the spillage of over 10 million gallons of petroleum from the Exxon Valdez in March of 1989 emphasized the fragility of environmental protection systems. *Lawsuits Allege Billions in Damages From Exxon Oil Spill, Cleanup in Alaska*, Env't Rep. (BNA), Apr. 14, 1989, at 2588.

232. See generally Warren E. Leary, *Ozone-Harming Agents Reach a Record*, N.Y. TIMES, Feb. 4, 1992, at C4; Malcolm W. Browne, *In Protecting the Atmosphere, Choices are Costly and Complex*, N.Y. TIMES, Mar. 7, 1989, at C1.

by environmental mismanagement.²³³ At the same time, it is increasingly understood that beyond the difficulty inherent in all environmental management problems,²³⁴ the multiple interests and parties to global environmental decision making would make responding to such problems particularly difficult.

A situation in which the potential for harm is so great and the difficulty of finding solutions so ominous would be paralyzing if there was not hope in collective action. A coordinated response to large-scale environmental management problems is necessary because it will help to ensure that all relevant factors are considered during problem solving to sort out the appropriate level of response necessary,²³⁵ to facilitate agreement among the participating countries, and to establish precedent for future coordinated responses.

To assert that certain environmental management problems require a coordinated, multinational (if not global) response is not a radical proposition. Depending on the threat of harm presented by a given problem, such a response might be the most effective way of ensuring a safe future. However, there may be situations where a coordinated response is not in the short-term best interest of every decision maker. Large groups of people or even entire countries might be adverse to certain solutions that seem to necessitate multinational response and are in the world's collective best interest. For example, while all nations, theoretically, would be best served by efforts to halt global warming, the economic burden on those countries that produce greenhouse gases as

233. See Tietenberg, *supra* note 192.

234. See *supra* notes 73-79 and accompanying text.

235. Environmental management problems are, of course, not all alike. Some problems might be best addressed on a global level (e.g., ozone depletion and large-scale protection of genetic diversity), others might be better addressed on a regional basis (e.g., transboundary pollution problems, certain localized trade problems, regional ecosystem management, and some natural resource allocation problems), while still others might better be addressed on the domestic level (e.g., traditional environmental regulation, small-scale ecosystem management, and individual-level responses to environmental management problems).

part of their effort towards economic growth may be great.²³⁶ It is difficult to imagine how a less-industrialized country would be forced to retard its economic development for the sake of a global good that it might not directly experience.²³⁷

2. The Basis for a Global Environmental Community

The existence of a global community is easier to understand in the late twentieth century, as capital, technology, and telecommunication linkages have caused the world's people to become increasingly interdependent. As Beitz acknowledges, "[i]f social cooperation is the foundation of distributive justice, then . . . international economic interdependence lends support to a principle of global distributive justice."²³⁸ This interdependence is characterized by the in-

236. Estimates of the potential cost to the United States alone for remediating global warming range from no loss to one to two percent loss of all future economic growth. This latter figure does not include the short-term loss attributable to property damage. Mark Trumbull, *Battle in the Greenhouse: Economy vs. Environment*, CHRISTIAN SCI. MONITOR, June 4, 1992, at 6.

237. As another example, the Vienna Convention for the Protection of the Ozone Layer surely is generally beneficial to the human population. However, people in the United States, who will be affected by ozone depletion relatively little (while the most injurious effects of ozone depletion will likely occur in the higher latitudes, depletion is occurring in the lower latitudes as well, see William K. Stevens, *Ozone Loss Over U.S. Is Found to Be Twice as Bad as Predicted*, N.Y. TIMES, Apr. 5, 1991, at A1) and may have to sacrifice economic strength for its part of the response effort (see, e.g., Malcolm W. Browne, *In Protecting the Atmosphere, Choices are Costly and Complex*, N.Y. TIMES, Mar. 7, 1989, at C1), may be less inclined to support the global effort.

238. BEITZ, *supra* note 107, at 144.

crease in economic relationships²³⁹ and institutions established to maintain world order.²⁴⁰

The extent of modern interdependence suggests that country boundaries can no longer be considered the limits to cooperation and obligation.²⁴¹ Beitz argues that Rawls' theory of justice can be applied to the global community precisely because there is a single community of obligation.²⁴² Unlike Rawls, however, Beitz suggests that because national borders cannot be understood to be boundaries for all human interaction,²⁴³ individual people should be the actors in the global original position. He suggests that if Rawls' assumptions are correct (and he believes that many of them are), a collection of all people behind the global veil of ignorance would choose

239. See MACNEILL, *supra* note 158, at 3-51. Participation in the community defined by international economic relations has both benefits and costs. While such indicators are difficult to measure accurately, global trade and capital transfer have helped to increase the world's total economic wealth over the past few decades. This, in turn, has resulted in economic benefits to many who would otherwise not have so profited. At the same time, however, there are costs of participating in an international economy. These include the possibility that the governing body will lose some amount of local control over its community's economy and that participation in international economic transactions might exacerbate domestic income inequality. See generally *id.* See also *infra* note 257 and accompanying text.

240. Participation in international affairs is increasingly regulated by institutions set up to act like governing bodies. Many of these institutions greatly affect the distribution of natural resources in the modern world. The United Nations, despite its many weaknesses, does exist as a governing body for those who will accept its governance. The United Nations, which acts as a repository of customary and formal international law, has worked to establish a set of norms that dictate international property rights. International economic institutions (e.g., the World Bank, the Organization for Economic Cooperation and Development), regulatory agreements (e.g., the General Agreement on Tariffs and Trade (GATT)) and enforcement mechanisms (e.g., through United Nations' supported sanctions and GATT panels) similarly have profound effects on natural resource management. See CALDWELL, *supra* note 77, at 82-110.

241. In fact, Beitz suggests that "[in] an interdependent world, confining principles of social justice to domestic societies has the effect of taxing poor nations so that others may benefit from living in 'just' regimes." BERTZ, *supra* note 107, at 149-50.

242. *Id.* at 151-53.

243. "[I]f evidence of global economic and political interdependence shows the existence of a global scheme of social cooperation, we should not view national boundaries as having fundamental moral significance." *Id.* at 151.

Rawls' same structure of community justice as the basis of global justice.²⁴⁴

As Beitz makes clear, a global system of justice based on Rawlsian principles does leave open a question of who are the appropriate recipients of that justice.²⁴⁵ A global original position inhabited by individuals would seem to suggest that those whose position should be benefitted most should be the globally "least advantaged" people, not the least advantaged countries that presumably Rawls expected. Thus, because national boundaries are not necessarily coexistent with the least advantaged people or groups of people, it is not necessarily required that a global difference principle transfer from rich countries to poor ones as such.²⁴⁶ The most important result of a global justice based on Rawls' principles would be the moral compulsion to minimize allocational inequalities between people, whether that reallocation be within or between communities.²⁴⁷

Beitz's suggestion that national borders should have little significance with respect to allocational justice has great resonance with respect to environmental management concerns. If there are subjects for which national borders are not effective boundaries, then certain environmental phenomena surely would be appropriate examples. As was described above, some environmental concerns can only be addressed effectively in a supranational forum. In the past, traditional, country-based international law has offered little guidance on how to address these subtle and enormous issues of large-scale environmental management. In response, a recent fo-

244. Beitz, *supra* note 107, at 151. See also text accompanying *supra* notes 107-21 for a brief outline of Rawls' framework of justice.

245. Beitz, *supra* note 107, at 152.

246. *Id.* at 153. Beitz concedes that interstate redistribution may be the second best solution in the absence of a better strategy for satisfying a global difference principle. *Id.*

247. This cosmopolitanist principle has been expounded in noncontractarian language as well. Peter Singer has suggested the universal principle that "if it is in our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, we ought, morally, to do it." Peter Singer, *Famine, Affluence, and Morality*, in *MORAL PHILOSOPHY* 597 (George Sher ed., 1987).

cus on global environmental responsibilities has yielded new interest in determining possible sources of international environmental responsibility.²⁴⁸ This discourse frequently includes a decidedly cosmopolitan view of global environmental obligation. For example, since the passage of the United Nations Declaration on the Human Environment in 1972, there has been advocacy for the recognition of a human right to a clean environment.²⁴⁹ This right might flow from the growing human rights jurisprudence, from international legal precedent, from accepted economic guarantees, or from international custom.²⁵⁰ Whatever its legal source, however, the right would follow from an understanding that environmental mismanagement is a primary cause of poverty, starvation, health problems, and other injustices.²⁵¹

A cosmopolitan vision of global environmental responsibility would not mean that all large-scale environmental management problems should be solved in a global forum. While it is true that some problems are primarily global in nature, others are regional or bilateral.²⁵² In these cases the

248. See, e.g., Jonathan I. Charney, *Universal International Law*, 87 AM. J. INT'L L. 529 (1993).

249. See Declaration of the United Nations Conference on the Human Environment, *supra* note 7, at principles 1-2.

250. 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 GEO. INT'L ENVTL. L. REV. 85 (1990).

251. These are some of the primary concerns of the United Nations system. See also Tietenberg, *supra* note 192.

252. See also *supra* note 229 and accompanying text. There has been a growing emphasis on determining the extent of a country's responsibility for general environmental (as opposed to natural resource by natural resource) management in at least three contexts. First, following the arguments of the Group of 77, international instruments were passed reaffirming individual countries' right to exploit natural resources within their boundaries without interference from outside forces. See, e.g., Charter of Economic and Rights and Duties of States, G.A. Res. 3281, U.N. GAOR, 29th Sess., Supp. No. 31, at 50, U.N. Doc. A/9631 (1974); United Nations Declaration on the Human Environment, Principle 21, at 9, U.N. Doc. A/CONF.48/14 (1972). Second, beginning in the mid 1970s, a number of international instruments were promulgated to support environmental management in a regional and global context. See, 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.

directly affected countries may be best able to negotiate a workable solution amongst themselves. Furthermore, regardless of the appropriate standard of behavior defined in a nationless original position, many environmental management solutions will be best effectuated by the governing bodies of countries. The global environmental vision recognizes only that the presence of an interdependent world community implies that the interests of individuals, regardless of their citizenship, are an important concern to all political actors (whether people or governing entities) who attempt to act in a morally considerate way.

3. Modern Global Environmental Equity Theory

The idea that the existence of a global community should form the basis of moral obligation is not a new one. Even if the discussion is limited to this century, the language of the United Nations Charter, for example, indicates a long-standing quest to institutionalize global responsibility for the welfare of all individuals, regardless of citizenship.²⁵³ It is only new to extend such moral responsibility to environmental management.

While there have been international relationships based on environmental management for many years,²⁵⁴ until re-

221; World Charter for Nature, U.N. Doc. A/Res/37/7 (1982). Finally, the Brundtland Commission was charged in 1983 to examine the relationship between development and environmental protection. The report issued by that commission (which is often referred to as the Brundtland Commission after its chairperson, Gro Harlem Brundtland) has become a seminal work in international environmental law. *See* WORLD COMMISSION ON ENVIRONMENTAL AND DEVELOPMENT, UNITED NATIONS, *OUR COMMON FUTURE* ix (1987) [hereinafter Brundtland Commission Report].

253. Article 1 of the United Nations Charter states that one of the purposes of that organization is to "achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion." U.N. CHARTER art. 1, para. 3.

254. Prior to the modern age of international environmental law, most international environmental treaties were concerned with migratory species of wildlife, protection of plant life, and the incidence of transboundary pollution. *See, e.g.,* International Convention for the Protection of Birds, Oct. 18, 1950, 638 U.N.T.S. 186; International Plant Protection Convention, Dec. 6, 1951, 150

cently obligations with respect to transboundary environmental management were based exclusively on private business transactions, treaties, or certain vague theories of customary international law.²⁵⁵ Only within the past few years have large-scale environmental management concerns become the grist of widespread debate.

Much of the current discourse about the obligations that exist with respect to large-scale environmental management flows from a perceived disfunctioning of humanity's interaction with the environment. Modern environmental thought attempts to examine this relationship, to reverse some of its more damaging behaviors, and to promote an environmental ethic based on a more respectful and coherent relationship between people and the Earth. This approach may be characterized by three related principles: sustainable development, intergenerational equity, and the precautionary principle. The principles are increasingly cited as fundamental principles of international environmental law.²⁵⁶

Providing an economic characteristic to the nascent global environmental ethic, sustainable development is a modern phrase for natural resource managers' traditional notion of long-term, sustainable environmental management. Sustainable development has been defined as: "[economic] development that meets the needs of the present without

U.N.T.S. 67; International Convention for the Prevention of Pollution of the Sea by Oil, May 12, 1954, 327 U.N.T.S. 3.

255. A line of cases and official statements, beginning with *The Trail Smelter Arbitration*, (U.S. v. Can.) 3 R.I.A.A. 1905 (1941), and finding voice in Principle 2 of the Rio Declaration on Environment and Development, has emphasized a general principle that:

[s]tates have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and 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.

Rio Declaration, *supra* note 23. See also Charney, *supra* note 242, at 534-42.

256. See generally Michael J. Glennon, *Has International Law Failed the Elephant?*, 84 AM. J. INT'L L. 1 (1990). It might also be argued that access to democratic entitlements is becoming a fourth part of this cachet. While such a principle is not exclusively "environmental," it surely correlates with a general theory of individual empowerment and justice. See Gormley, *supra* note 244.

compromising the ability of future generations to meet their own needs."²⁵⁷ This conception of the goals of environmental management emphasizes that economic development which fails to account for environmental protection is bound to result in a degraded natural resource base that eventually undermines economic development.²⁵⁸ This notion follows from a realization that interdependence has led to a situation in which domestic economies, and the correlated ability to protect the environment, are beholden to the collective force of the global economy.²⁵⁹ Failing to alleviate this systematic impoverishment amounts to international environmental discrimination.

Sustainable development is premised on the principle that each generation owes a natural resource base of at least equal quality and magnitude to the next.²⁶⁰ Such an obligation is correlated with the right of each generation to inherit such a natural resource base. This formulation, referred to as the principle of intergenerational equity, makes imperative an emphasis on long-term environmental management. In this way, intergenerational equity is a mandate to link future needs with past natural resource use through the responsibilities of the present generation. But such a mandate has broader ramifications. Failing to create just environmental management in this world leaves descendants of the impoverished of this world in a vulnerable and unjust position.

257. Brundtland Commission Report, *supra* note 246, at 43.

258. *Id.* at 4-6. The Brundtland Commission wrote that global environmental management must address issues of economic development because less-industrialized states are under "enormous economic pressures, both international and domestic, to overexploit their environmental resource base." *Id.* at 6.

259. Beitz points to at least two ways that domestic economies might become influenced by the global economy: "first, under prevailing political conditions, the gains from trade and the retained profits of foreign-owned firms have tended to be concentrated in the upper income classes; second, the political influence of foreign investors has (either directly or indirectly) supported governments committed to inegalitarian domestic distributive policies." Beitz, *supra* note 107, at 148. See also Robert O. Keohane & Van Doorn Ooms, *The Multinational Firm and International Regulation*, 29 INT'L ORG. 169, 179-80 (1975).

260. For a well-reasoned treatment of the compulsion for this obligation, also known as intergenerational equity, see Edith Brown Weiss, *supra* note 74.

A belief in intergenerational equity thus dictates a quest for environmental justice in the present, as well as in the future.

Finally, the premise of the precautionary principle is that even though potentially disastrous, large-scale environmental management problems often contain scientific uncertainty, it is necessary to establish environmental management regimes that regulate potentially harmful activities before they are proven harmful.²⁶¹ A regime governed by the precautionary principle places the burden of proving the harmlessness of a behavior on the party who would engage in that behavior,²⁶² and thus shifts the focus of environmental management from avoidance and remediation to planning and stewardship. Such a nontraditional²⁶³ approach to environmental management reflects a reassessment of the efficacy of past environmental management experience.²⁶⁴

Environmental management informed by the three principles mentioned above begins to reflect a fuller ideal of environmental justice. This ethic is not lessened by national borders (although countries might be the appropriate agents for effecting necessary transfers to ensure just allocation of

261. James Cameron & Juli Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B.C. INT'L & COMP. L. REV. 1, 2 (1991). See generally Weintraub, *supra* note 79.

262. Weintraub, *supra* note 79, at 204-07. Because the precautionary principle creates environmental regulation regardless of causal certainty, a potential polluter must prove that an activity is harmless before engaging in that activity. For example, in a precautionary regime established to limit the dumping of sewage into the ocean, a potential polluter state would have to prove to the governing body of the regulatory system that the activity would not exceed a predetermined standard of harm before any dumping takes place.

263. A precautionary environmental management scheme departs from "traditional, tort-oriented approach[es] in which no harm is presumed to result from the activity of another until a party can demonstrate damage and causation." *Id.* at 178, 207-09; W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 41, at 263, 269 (5th ed. 1984).

264. Indeed, the adoption of such an approach by some countries shows that there are communities that highly value the benefits to be derived from environmental protection as very high compared with the costs of remediation and responding to unpredictable environmental disasters. There have been references to precautionary language in numerous international legal instruments in the past ten years. See Cameron & Abouchar, *supra* note 255, at 4-18.

natural resources in this and future generations); it is well suited to respond to the unique requirements and challenges of international environmental management problems.²⁶⁵ It envisions peoples' relationship with the Earth as one of connected reliance where environmental management is consonant with support for individuals' attempts to better their own lives.²⁶⁶ Such treatment is not charity, it is a responsibility of morally considerate actors in a world community.²⁶⁷ That the world does recognize an obligation to ensure a minimum quality of environment, as reflected in the application of the three principles of global environmental behavior and the development of international environmental law, is testimony to the rise of a global environmental community.

C. A Comprehensive Theory of Environmental Security

The term "environmental justice" has been used in this article as a general description of a contractarian vision of justice defined within an environmental context. The principles that are emerging as the basis of a global environmental ethic may be understood to be further refinements to that general vision. By refusing to separate environmental management from human welfare, an emergent conception of environmental justice begins to indicate parameters of a comprehensive theory of environmental security.

265. The ethic that emerges from these broad principles all support foresightful and aggressive environmental management. This coordination is difficult in a world composed of many different cultures, ideals, and goals. To a large extent, then, learning to respond to problems within the context of differing goals must become the operative paradigm of international environmental management. Mark Sagoff has argued that ecologists from differing cultures and governmental systems 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).

266. In fact, global environmental treaties recently negotiated have begun to include provisions that account for the circumstances and particular requirements of developing countries. See *supra* note 215.

267. See Singer, *supra* note 241, at 600.

1. The Connection Between Environmental Justice and Global Environmental Security

The discussion above suggests that according to modern international environmental principles, moral actors have a responsibility to ensure that natural resources are allocated in a just manner and that future generations do not inherit a degraded environment. In practice this is a responsibility to undertake active environmental management,²⁶⁸ which in turn implies an effort to seek solutions to environmental management problems in a manner informed by the needs of all people affected by the policy decisions. This responsibility is not limited by community boundaries; the environmental context is one in which moral obligation is global.²⁶⁹ While acting as a community may facilitate this moral responsibility, the responsibility arises initially to the individual alone. Each person has an obligation to ensure an equitable quality of environment for all needy people, regardless of location.

Unfortunately for moral individuals, however, environmental management is not fungible. As has been stressed in this article, establishing something to be a natural resource entails a process of valuation associated with a community-specific MQE. While the global community might exist for the purpose of identifying certain global natural resources and environmental management principles, the enormous diversity of local and domestic community identities ensures that it would never be appropriate for the global community to determine specific environmental management needs for the nonglobal communities primarily discussed here. A global theory of environmental security will have to recognize that for the sake of environmental management, the world community should be understood to be a special federated system in which the needs of the component communities

268. See, e.g., Weintraub, *supra* note 79, at 197-204.

269. Singer argues that there is little moral justification, in an economically and technologically interdependent world where people have information about all of the planet's ills, in limiting the scope of moral responsibility by geographical (i.e., political) boundaries. See Singer, *supra* note 241, at 597-98.

must be especially respected.²⁷⁰ And, like all federated systems, the MQEs that evolve amongst the various communities should reflect a division of environmental management responsibility that most appropriately reflects the unique needs of the citizens of the overlapping communities.²⁷¹

Therefore, the individual confronted with the responsibility to ensure just environmental management must look to the community to which her or his efforts are to be focused to discover how best that goal might be achieved. There are a number of ways that this might be accomplished. The most obvious way would be to determine how that community defines its environmental needs (*i.e.*, by researching and recognizing the community's MQE) and to assist in the indicated environmental management to the extent that she or he is able.²⁷² This process would allow the agent some control over which parts of the environment would be managed, while still focusing on those that the community in question desires. A less burdensome possibility for the individual, and one easier to administer, would be to send money or other aid in lieu of services, and let the target community determine how best to use it.²⁷³

The obligation of every individual to ensure just environmental management, of course, would be internalized within the MQE of every community, as it is within the global environmental ethic that comprises part of all people's identity. Thus the lines between security and identity become blurred as one's obligation to all of her or his relevant communities is essentially the same—to work towards ensuring that all nat-

270. This concept might be a parallel (and an evolutionary descendent) of the traditional notion of state sovereignty that is central to modern international law. See U.N. CHARTER art. 2.

271. See discussion *supra* section III.D.

272. Of course, the moral agent here might be represented by the governing body of a community or an organization acting according to the agent's desires.

273. It would be too difficult here to deal with the complex issues of where to send such money and how to judge the trustworthiness of the governing bodies of needy communities. I only argue that a moral actor must do something, and that second-guessing the needs of another community is neither useful (because an outsider's ability to value another community's MQE is bound to be faulty) nor appropriate (for many of the same reasons).

ural resources are managed in a way most protective of those people and communities that need them. In this way environmental justice would be promoted through all environmental management efforts.

2. A Comprehensive MQE

The global community, while sharing many characteristics with other communities, is unique because of its scope and analytical deficiencies within community analysis. These characteristics necessitate that the world community, for the sake of establishing a comprehensive theory of environmental security, be particularly cognizant of the cultural integrity and autonomy of the world's communities. That is, when determining the ways in which to promote environmental justice, the world's environmental needs should be conceptualized as being determined within the context of a federated community. This federation is the world environmental community and the component communities that serve to determine the unique needs of their members.

Environmental justice, then, may be understood to be the catalyst of an integrated concept of environmental security. Within this construct, the moral dictates of a global environmental ethic infuse all people's relationship with their communities, with other communities, and with the world community as a whole. These differing levels of responsibility for ensuring just environmental management should be reflected in the MQEs of the relevant communities. Thus, the existence of a world community creates a context in which assurance of environmental security becomes an obligation at each level of human consciousness.

This vision of a federated world environmental community, therefore, means that the goal of environmental security must exist together at all community levels of human interaction. Such environmental security would implicate a further refinement in the general definition of MQE, which now could be stated as follows:

The Minimum Quality of Environment (MQE) is the amount and type of benefits of environmental management

that must be maintained for a given community to maintain its identity. This measurement reflects an effort to increase the well-being of community members within that identity by achieving community-appropriate, environmentally-just environmental management; by ceding environmental management responsibility to other communities, when such ceding would be in the community's best interest; and by recognizing ideals of proper intercommunity obligation, including, to some extent, the obligation to aid other communities in protecting their environments. *The existence of a global MQE implies that every community and person has a responsibility to promote efforts to increase environmental justice.*

This fully articulated MQE recognizes the centrality of the search for justice in the quest to achieve environmental security. Justice, in this sense, includes the recognition that communities, by definition, have unique identities and, by recognizing the relevance of various community identities and linking those identities to the responsibility to support those differences, are entitled to an amount of self-definition with respect to which of their needs must be met. A global understanding of the relevance of MQE, therefore, teaches the importance of diversity, and thereby supports toleration and respect.

VI. Conclusion

The vision of environmental security sketched in this article would indicate a redefinition of human interaction with the Earth. This new relationship would concentrate on humans as both the agents and focus of environmental management. It would necessitate greater reflection on the ramifications of natural resource use, and thus would promote diligent and critical environmental planning and natural resource use.

Furthermore, an understanding of environmental security emphasizes that human interaction and responsibility towards each other, as well as to the Earth, must become a central concern of environmental management. Such a vision of environmental security presages more than the effective

and just responses to environmental management problems that are necessary to the assurance of a reasonable life for all people in a wealthy world; it suggests that a healthful life in the modern world should be defined, at least in part, by a global commitment to bettering the lives of others.