DISCUSSION PAPERS

Moving beyond Anthropocentrism: Environmental Ethics, Development, and the Amazon

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We argue for the rejection of an anthropocentric and instrumental system of normative ethics. Moral arguments for the preservation of the environment cannot be based on the promotion of human interests or goods. The failure of anthropocentric arguments is exemplified by the dilemma of Third World development policy, e.g., the controversy over the preservation of the Amazon rain forest. Considerations of both utility and justice preclude a solution to the problems of Third World development from the restrictive framework of anthropocentric interests. A moral theory in which nature is considered to be morally considerable in itself can justify environmental policies of preservation, even in the Third World. Thus, a nonanthropocentric framework for environmental ethics should be adopted as the basis for policy decisions.

I. INTRODUCTION

In this paper, we consider the role of human interests in the formation of environmental policy. Are environmentalist policies justified solely because they benefit human individuals and human society? Or are there valid moral principles that transcend human concerns and justify a direct moral consideration of the natural environment?

These questions have dominated the field of environmental ethics since its inception. In general, the field has provided a critique of *instrumental* human-based arguments for environmental policies, and has attempted the development of a *nonanthropocentric* ethic or value theory which will account for a direct moral consideration of nature.[1]

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[1] The critique of anthropocentric instrumental reasoning in environmental policy begins with

We defend this rejection of anthropocentric instrumental reasoning as a basis for environmental policy. Although we do not formulate a value theory or a system of ethics that validates a nonanthropocentric regard for nature, we argue that this direction in environmental ethics is necessary for the solution of persistently difficult questions of public policy. As an example, we consider arguments about the development of the environment in the Third World, especially the destruction of the Amazon rain forests. Anthropocentric justifications concerning development—both for and against—lead to inescapable problems concerning both utility and justice. These problems can be avoided from a nonanthropocentric and noninstrumental perspective. We thus provide an *indirect* argument for the moral consideration of nature in the formation of environmental policy.

Our argument is based on a narrow, but, we believe, pervasive interpretation of the term *anthropocentric* to mean those values, goods, and interests that promote human welfare to the near exclusion of competing nonhuman values, goods, and interests. This version of anthropocentrism is closely aligned with the term *instrumentalism,* according to which the world is viewed as a resource valuable only as it promotes human good. Our purpose is to criticize *anthropocentric instrumentalism* as it is applied to developmental policies. Although we leave open the possible justification of environmental policies by *noninstrumental* forms of *anthropocentrism* (such as beauty or other intrinsic human ideals), we suggest primarily that a *nonanthropocentric instrumentalism* (based on the promotion of the goods of nonhuman nature) is a valid and necessary response to environmental problems.

II. HUMAN INTERESTS AND ENVIRONMENTAL PRESERVATION

It is not surprising that anthropocentric arguments dominate discussions of policy: arguments for environmental preservation based directly on human interests are often compelling. Dumping toxic wastes into a community's reservoir of drinking water is clearly an irrational act; in such a case, a discussion of ethics or value theory is not necessary. The direct harm to humans engendered by this action is enough to disqualify it from serious ethical consideration. Neverthe-

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Aldo Leopold's attempt to develop an ethic of ecological community. See Aldo Leopold, "The Land Ethic," in *A Sand County Almanac* (New York: Ballantine, 1970), pp. 237-64. Other important works that focus on the direct moral consideration of nature include: Holmes Rolston, III, *Environmental Ethics: Duties to and Values in the Natural World* (Philadelphia: Temple Univ. Press, 1987); J. Baird Callicott, *In Defense of the Land Ethic: Essays in Environmental Philosophy* (Albany: SUNY Press, 1989); Peter S. Wenz, *Environmental Justice* (Albany: SUNY Press, 1988); and Paul W. Taylor, *Respect for Nature: A Theory of Environmental Ethics* (Princeton: Princeton Univ. Press, 1986). For enlightened versions of anthropocentrism see Eugene C. Hargrove, *Foundations of Environmental Ethics* (Englewood Cliffs: Prentice Hall, 1989); Bryan G. Norton, *Why Preserve Natural Variety?* (Princeton: Princeton Univ. Press, 1987); and Mark Sagoff, *The Economy of the Earth* (Cambridge: Cambridge Univ. Press, 1988).

less, other actions in the field of environmental policy are not so clear: there may be, for example, cases in which there are competing harms and goods to various segments of the human population that have to be balanced. The method for balancing these competing interests gives rise to issues of equity and justice. In addition, and more pertinent to our argument, are cases in which human actions threaten the existence of natural entities not usable as resources for human life. What reason do we humans have for expending vast sums of money (in positive expenditures and lost opportunities) to preserve endangered species of plants and animals that are literally nonresources?[2] In these cases, policies of environmental preservation seem to work against human interests and human good.

Anthropocentric and instrumental arguments in favor of preservationist policies can be developed in a series and arranged in order of increasing plausibility. First, it is argued that any particular species of plant or animal might prove useful in the future. Alastair Gunn calls this position the "rare herb" theory. According to this theory, the elimination of any natural entity is morally wrong because it closes down the options for any possible positive use.[3] A point frequently raised in discussions of this problem is that the endangered species we are about to eliminate might be the cure for cancer. Of course, it is also possible that it will cause cancer; the specific effects of any plant or animal species might be harmful as well as beneficial. Because we are arguing from a position of ignorance, it is ludicrous to assert either possibility as certain, or to use either alternative as a basis for policy.

A better argument is used by Paul and Anne Ehrlich: the metaphor of the airplane rivets.[4] The Ehrlichs tell a parable of an airplane passenger watching as a mechanic removes some of the rivets from the wing assembly of the plane he is boarding. When asked what he is doing, the mechanic replies that for reasons of economy, the airline is cutting down on the number of rivets used on each plane; some of the rivets are being removed and used on other planes. The procedure is not dangerous, continues the mechanic, since up to this point, no planes have been lost. The point of the parable is that although the elimination of individual species might not be directly harmful to human welfare, the aggregate elimination of many species probably will be. It is thus in the interests of humanity to remove as few "rivets" as possible, to preserve natural species even when they are "nonresources."

Without the use of a parable, Bryan Norton makes a similar point. In his discussion of the diversity-stability hypothesis in ecological theory, Norton argues that dynamically stable and mature ecosystems are important elements of

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[2] For a discussion of "nonresources," see David Ehrenfeld, *The Arrogance of Humanism* (New York: Oxford University Press, 1978), pp. 176-211.

[3] Alastair Gunn, "Why Should We Care about Rare Species?" *Environmental Ethics* 2 (1980): 17-37.

[4] Paul and Anne Ehrlich, *Extinction* (New York: Ballantine, 1981), pp. xi-xiv.

that total diversity which stabilizes all ecosystems.[5] There is a danger in continually disrupting these diverse and stable ecosystems:

> Since the biological diversity of the planet has already entered an accelerating downward spiral, losses of species represent further accelerations toward local and global ecosystem breakdowns. The risks of breakdowns are so great and the contribution of species losses to them are so little understood that any rational society would exercise extreme caution in contributing to that acceleration.[6]

Diverse species populations thus contribute to stable ecosystems, which have positive impacts on human life.

Finally, this argument is broadened into a general concern for ecological function. The preservation of the natural environment insures a biosphere that supports human civilization. Degradation of the natural environment threatens human survival. Nevertheless, knowledge of ecological processes can help humans avoid damage to essential biological and physical links in the natural world. As Norton indicates, the loss of species and ecosystems is a sign that these natural connections are being "cut," lost, or damaged. The mere preservation of the natural environment halts this process of degradation. Nature thus has to be preserved because it has a value for human beings and human society: it insures the physical basis of human life.

In sum, these preservationist arguments based on "human interests" move from a narrow concern for the specific direct use of a natural entity or species, to the indirect importance of species as stabilizers of ecosystems, and finally to a general concern for the maintenance of ecosystems as the basis of human existence.

These anthropocentric instrumental arguments for environmental preservation are easily transferred to issues of environmental policy. Recent concern about the destruction of the ozone layer and the increased probability of the "greenhouse effect" reflect the fear that current environmental and economic polices are damaging the environment and threatening human life. Indeed, it is a mark of the success of the environmental movement that the public is now aware of the connections between environmental health and human survival.

A clear example of the connection between instrumental human interest arguments and concern for the preservation of an ecosystem is the current awareness of the plight of the Amazon rain forests. Although continued development of the forests and the conversion of rain forests to farmland and pasture contribute to a rapid loss of species,[7] the major problem is a threat to the overall

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[5] Norton, *Natural Variety,* pp. 80-84.

[6] Ibid., p. 121.

[7] Most sources, both popular and scientific, claim that the tropical rain forests are the source of almost half of the Earth's species. A comment by Eugene P. Odum is typical: "Species diversity of both plants and animals tends to be high in tropical rain forests; there may be more species of plants and insects in a few acres of tropical rain forests than in the entire flora and fauna of Europe." Eugene P. Odum, *Ecology and Our Endangered Life-Support Systems* (Sunderland: Sinauer, 1989), p. 244.

ecosystems of the rain forests themselves. Deforestation has a significant impact on climate because of the increase of atmospheric carbon.[8] The recent increase in atmospheric carbon is a primary cause of the "greenhouse effect," which leads to global warming. Thus, the preservation of the rain forests is an important element in the maintenance of a biosphere habitable for humanity. This line of reasoning has been a clear argument and powerful motivation for environmental policies designed to preserve the Amazon rain forests. Environmentalists and ordinary citizens alike now seek a halt to the destruction of the Amazon; they now recognize that the welfare of all human life depends on the maintenance of this unique ecological region.

It thus appears that anthropocentric arguments for environmental preservation are useful in the justification and determination of environmental policy. Natural entities, species, and ecosystems are crucial, both for human survival and for the continuation of an advanced level of civilization. The important instrumental functions of the natural environment thus can be employed in debates over environmental policy throughout the Third World, and in particular, the Amazon rain forest. Should Third World nations be prevented from developing natural ecological areas in ways that would destroy the ecosystems of the region? Should policies of sustainable development, the economic use of the forest without clear-cutting or other forms of destruction, be mandatory? Should such countries as Brazil be persuaded to preserve the Amazon rain forest so that the harmful consequences of the "greenhouse effect" can be avoided? A consistent environmentalist, it seems, would be forced to condemn the Third World development of the natural environment on the grounds that the Amazon rain forests must be saved.

We believe that this anthropocentric and instrumental argument for the preservation of the Amazon rain forests (or any other Third World natural area) is

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See also Ehrlich and Ehrlich, *Extinction,* pp. 191-98; Thomas E. Lovejoy, "Species Leave the Ark One by One," in *The Preservation of Species,* ed., Bryan G. Norton (Princeton: Princeton University Press, 1986), pp. 13-27; Norman Myers, *The Sinking Ark* (New York: Pergamon Press, 1979) and *The Primary Source: Tropical Forests and Our Future* (New York: W, W Norton, 1984), pp. 36-67; and E. O. Wilson, "Threats to Biodiversity," *Scientific American* 261, no. 3 (September 1989): 108-16. A major source of articles on all aspects of species diversity is E. O. Wilson and Frances M. Peter, eds., *Biodiversity* (Washington, D.C.: National Academy Press, 1988).

[8] Deforestation has two major effects on climate, one "positive" and one "negative." Burning forests releases the carbon stored in trees into the atmosphere; and with deforestation, there are fewer trees to absorb or consume the carbon dioxide in the atmosphere. For a basic discussion in an introductory ecology text, see R. F. Dasmann, *Environmental Conservation,* 5th ed. (New York: John Wiley, 1984), p. 168, or see Myers, *The Primary Source,* pp. 283-93. Recent discussions of the effects of Amazon deforestation on climate can be found in J. Shukla, C. Nobre, and P. Sellers, "Amazon Deforestation and Climate Change," *Science* 247 (March 1990): 1322-25; and Roger A. Sedjo, "Forests: A Tool to Moderate Global Warming?" *Environment* 31 (January/February 1989): 14-20. See also Richard A. Houghton and George M. Woodwell, "Global Climatic Change," *Scientific American* 260, no. 4 (April 1989): 36-44; and a report on the work of Charles Keeling in Fred Pearce, "Felled Trees Deal Double Blow to Global Warning," *New Scientist* 123, no. 1682 (September 1989): 25.

seriously flawed. Even though the natural environment should be preserved, arguments based on human interest fail to provide an adequate justification for the preservation of ecosystems in the Third World. We discuss the problems with the anthropocentric perspective in the following two sections.

III. PROBLEMS OF UTILITY

The first problem is empirical: there is uncertainty about the calculation of benefits and harms to be derived from alternative policies of development or preservation. In part, the problem is a traditional one encountered with any consequentialist analysis of normative action; however, in this particular case, Amazon rain forest development, we believe that the problem is acute. Although the benefits and harms to be determined are solely those of the affected human populations, the relevant populations are clearly distinct from one another, and the level and kinds of benefits and harms appear to be incommensurable.

If a policy of preservation is adopted, the benefits to be derived are those associated with the continued maintenance of the biosphere as the basis of human life: production of oxygen, consumption of atmospheric carbon, preservation of potentially useful species, etc. If a policy of development is adopted, the benefits to be derived are primarily local and economic: increased agricultural and livestock production, industry, and exports. The costs and harms within each policy are determined by the failure to achieve the alternative benefits. A policy of preservation limits economic gain; a policy of development limits the goods of a functioning natural ecosystem.

Although the choices appear clear, we lack the kind of data that would make the utility calculations possible. Is there a quantifiable good in the preservation of x amount of rain forest acreage that can be expressed in terms of biospherical maintenance and then compared to the loss of economic gains by indigenous local populations? Can we determine a quantifiable good in various methods of rain forest development, which then can be compared to losses in ecological function? It seems unlikely that these kinds of comparisons could ever be made; they are not being made now. In a recent survey of land use and management by indigenous peoples, Jason W. Clay warns: "Until now, few researchers have examined the ways indigenous inhabitants of tropical rain forests use and sustain their region's resources."[9] Clay is saying that we do not know what the economic benefits and costs are in alternative policies of preservation and development. If viewed in this way, utility calculations become impossible as a basis of policy.

Our complaint is not merely with the traditional difficulties of performing real-life utility calculations. The deeper issue is the anthropocentric framework that

[9] Jason W. Clay, *Indigenous Peoples and Tropical Forests* (Cambridge, Mass.: Cultural Survival, 1988), p. 3. We might want to modify this bleak picture; see the argument in favor of non-destructive development of the rain forest in Charles M. Peters, Alwyn H. Gentry, and Robert O. Mendelsohn, "Valuation of an Amazon Rainforest," *Nature* 339 (June 1989): 655-56.

limits ethical and policy discussions. The primary concern for human interests or benefits—anthropocentrism—creates an irreconcilable conflict between two goods that are supposedly advocated by anthropocentric policies, i.e., the ecosystem which preserves the atmosphere, thus, preserving human life, and the economic use of the land by the indigenous population. We are faced with a classic case of a conflict between a long-term support system and short-term usable goods. This conflict cannot be resolved unless we expand the framework of discussion beyond the limits of anthropocentric instrumental reasoning.

IV. THE PROBLEM OF JUSTICE

The conflict between differing kinds of goods leads directly to the problem or dilemma of justice. This problem is a classic, long-standing difficulty in normative ethics. It arises in the context of environmental and economic policy decisions because of the exclusive use of narrowly defined anthropocentric and instrumental goods. Theoretical human goods and harms (the type discussed in the previous section) are not adequate as a basis for the determination of environmental policy, because global environmental policy cannot be determined in isolation from geopolitical concerns. The history and politics of power relations cannot be ignored. Third World nations, recently freed from political colonization, see the development of indigenous natural resources as a means of attaining economic freedom. The newly formed policies of nondevelopment and preservation appear to be a subtle form of the old imperialism. The wealthy industrialized nations of the world, having developed their own natural resources, and having "stolen" the natural resources of the Third World, now are planning to prevent any further development, so that the ecological basis of humanity can be preserved—a policy which clearly limits the economic and social development of the poorer, non-industrialized nations.[10]

These complaints of "preservationist imperialism" are difficult to answer, and open-minded environmentalists must feel uneasy about the dilemma. Nevertheless, it is our contention (in this and the next section) that if the policies of nondevelopment and preservation continue to be justified by *instrumental* arguments regarding the ecological value of nature for human survival, then the charges of imperialism and domination remain unassailable. Only by *rejecting anthropocentrism* and developing a framework of direct value for natural entities and systems, can one avoid the charges of imperialism in Third World preservation policy.

Why is anthropocentrism a critical part of the problem of justice? The simple answer is that anthropocentric arguments emphasize merely human goods, which simultaneously ignore a direct concern for environmental preservation and create insurmountable problems of balance and equity. Anthropocentric and instrumen-

[10] Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics* 11 (1989): 75-76.

tal arguments result in a merely contingent connection between human satisfaction and the maintenance of the natural environment.[11] If the final goal of our policy is the maximization of human satisfaction, then the preservation of nature only occurs when there is a congruence of interests between humanity and nature. In practical terms, thus, any discussion of policy alternatives—development, preservation, resource conservation—involves a comparison and trade-off of human goods, and only human goods. Viewed in this way, the preservation of a natural ecosystem or an endangered species becomes merely one benefit in an entire array of possible human satisfactions. For an environmentalist policy to be adopted, the results of preservation have to outweigh the results of development. Broadly speaking, the cost-benefit ratio has to favor the nondevelopment of the natural environment.

It is here that the problems of the utility calculation noted above in section three lead to the dilemma of environmental justice. Third World nations can claim that the benefits of preserving, e.g., the Amazon rain forest, are spread out thinly across the entire human race, while the costs (in this case, the cost of lost economic opportunity) are borne primarily by Brazilians and other local human populations. Development of the rain forest, however, provides benefits for the local population while spreading the costs across the rest of humanity. Demanding that Brazil and other Third World countries limit development, therefore, violates basic and intuitive notions of equity and justice. The Third World is being asked to pay for the industrialized world's profligate use of natural resources. Having been denied the benefits of past development, they are now being asked to pay for the preservation of the biosphere.

This issue of justice arises because the policy discussion has been limited to a consideration of human interests. If the criterion for policy decisions is the maximization of human satisfactions or benefits, then it becomes appropriate—even mandatory—to ask questions about the distribution of these benefits. In this way, issues of justice, in general, serve to limit and complement teleological criteria for the determination of policy. In the context of Third World environmental development, however, considerations of justice override any plausible account of benefits resulting from the preservation of the natural environment. The need for economic development seems so great that the hypothetical long-term effects on global warming appear trivial. If we restrict our analysis of policy to the maximization of human welfare and to the creation of just social institutions, then we cannot escape the problem created by the Third World's need for economic development. Conceived as a problem in maximizing and balancing human goods, the scales incline toward policies of development. The demand for anthropocentric justice dooms the preservation of the natural environment.

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[11] For a discussion of the contingency of human interests in environmental policy, see Martin Krieger, "What's Wrong with Plastic Trees?" *Science* 179 (1973): 446-55; Mark Sagoff, "On Preserving the Natural Environment," *Yale Law Journal* 84 (1974): 205-67; and Eric Katz, "Utilitarianism and Preservation," *Environmental Ethics* 1 (1979): 357-64.

V. MOVING BEYOND ANTHROPOCENTRISM

Can an environmentalist defend a policy of preservation in the Amazon rain forest without violating a basic sense of justice? We believe that the mistake is not the policy of preservation itself, but the anthropocentric instrumental framework in which it is justified. Environmental policy decisions should not merely concern the trade-off and comparison of various human benefits. If environmentalists claim that the Third World must preserve its environment because of the overall benefits for humanity, then decision makers in the Third World can demand justice in the determination of preservation policy: preservationist policies unfairly damage the human interests of the local populations. If preservationist policies are to be justified without a loss of equity, there are only two possible alternatives: either we in the industrialized world must pay for the benefits we will gain from preservation or we must reject the anthropocentric and instrumental framework for policy decisions. The first alternative is an empirical political issue, and one about which we are not overly optimistic. The second alternative represents a shift in philosophical world view.

We are not providing a direct argument for a nonanthropocentric value system as the basis of environmental policy. Rather, our strategy is indirect. Let us assume that a theory of normative ethics which includes nonhuman natural value has been justified. In such a situation, the human community, in addition to its traditional human-centered obligations, would also have moral obligations to nature or to the natural environment in itself. One of these obligations would involve the urgent necessity for environmental preservation. We would be obligated, for example, to the Amazon rain forest directly. We would preserve the rain forest, not for the human benefits resulting from this preservation, but because we have an obligation of preservation to nature and its ecosystems. Our duties would be directed to nature and its inhabitants and environments, not merely to humans and human institutions.

From *this* perspective, questions of the trade-off and comparison of human benefits, and questions of justice for specific human populations, do not dominate the discussion. This change of emphasis can be illustrated by an exclusively human example. Consider two businessmen, Smith and Jones, who are arguing over the proper distribution of the benefits and costs resulting from a prior business agreement between them. If we just focus on Smith and Jones and the issues concerning them, we will want to look at the contract, the relevant legal precedents, and the actual results of the deal, before rendering a decision. But suppose we learn that the agreement involved the planned murder of a third party, Green, and the resulting distribution of his property. At that point the issues between Smith and Jones cease to be relevant; we no longer consider who has claims to Green's wallet, overcoat, or BMW to be important. The competing claims become insignificant in light of the obligations owed to Green. This case is analogous to our view of the moral obligations owed to the rain forest. As soon as we realize that the rain forest itself is relevant to the conflict of competing

goods, we see that there is not a simple dilemma between Third World development, on the one hand, and preservation of rain forests, on the other; there is now, in addition, the moral obligation to nature and its ecosystems.

When the nonanthropocentric framework is introduced, it creates a more complex situation for deliberation and resolution. It complicates the already detailed discussions of human trade-offs, high-tech transfers, aid programs, debt-for-nature swaps, sustainable development, etc., with a consideration of the moral obligations to nonhuman nature. This complication may appear counterproductive, but as in the case of Smith, Jones, and Green, it actually serves to simplify the decision. Just as a concern for Green made the contract dispute between Smith and Jones irrelevant, the obligation *to the rain forest* makes many of the issues about trade-offs of human goods irrelevant.[12] It is, of course, unfortunate that this direct obligation to the rain forest can only be met with a cost in human satisfaction—some human interests will not be fulfilled. Nevertheless, the same can be said of all ethical decisions, or so Kant teaches us: we are only assuredly moral when we act against our inclinations.

To summarize, the historical forces of economic imperialism have created a harsh dilemma for environmentalists who consider nature preservation in the Third World to be necessary. Nevertheless, environmentalists can escape the dilemma, as exemplified in the debate over the development of the Amazon rain forest, if they reject the axiological and normative framework of anthropocentric instrumental rationality. A set of obligations directed to nature in its own right makes many questions of human benefits and satisfactions irrelevant. The Amazon rain forest ought to be preserved regardless of the benefits or costs to human beings. Once we move beyond the confines of human-based instrumental goods, the environmentalist position is thereby justified, and no policy dilemma is created. This conclusion serves as an indirect justification of a nonanthropocentric system of normative ethics, avoiding problems in environmental policy that a human-based ethic cannot.[13]

VI. CONCLUDING REMARKS

Policy makers and philosophers in the Third World may not be pleased with our conclusions here. Indeed, Ramachandra Guha has recently criticized the focus on biocentrism (i.e., nonanthropocentrism) and wilderness preservation that per-

[12] It makes many of the human interests irrelevant, but not all. See our concluding remarks below.

[13] Again, we are not denying the possibility of an anthropocentric and noninstrumental ethic, a version of a so-called "enlightened anthropocentrism." The best treatments of this view are expressed by Hargrove, Norton, and Sagoff, in the works cited in n. 1 above. Hargrove uses a concept of beauty, Norton a concept of "transformative" human values, and Sagoff a concept of the ideals of the community or nation. It is our contention, however, that a *direct* appeal to the goods of the nonhuman natural world is a clearer and less problematic route to the goal of environmental preservation.

vades Western environmentalism. These Western concerns are at best, irrelevant to, and at worst, destructive of Third World societies. According to Guha, any justifiable environmental movement must include solutions to problems of equity, "economic and political redistribution."[14] We agree. Thus, as a final note, let us return from the abstract atmospheres of axiological theory and normative frameworks to the harsh realities of life in the non-industrialized world. If our argument is sound, then any destructive development of the natural environment in the Third World is a moral wrong, and a policy of environmental preservation is a moral requirement. Recognition of this moral obligation to preserve the natural environment should be the *starting point* for any serious discussion of developmental policy. But it is only a starting point. Once the preservationist obligation is accepted, the difficult trade-offs of goods between competing groups of humans can be debated, and questions of global equity can be addressed. Indeed, it is clear that they must be addressed, for the moral obligation to preserve the environment from destructive development creates additional human-based geopolitical obligations on the industrialized Western world. We must do more than lecture Third World nations; we must give them the economic aid that will make the development of their natural environments unnecessary. As Guha notes, we have to end the "expansionist character" of the West by developing an ethic of self-limitation. Only in this way can we begin to meet our obligation to preserve the natural environment.[15] In short, we must begin to pay the price for our centuries of environmental and developmental exploitation. We have outstanding debts, both to the nations of the Third World and to nature itself.

[14] Guha, "Radical American Environmentalism and Wilderness Preservation," p. 81.
[15] Ibid., p 80.