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ENVIRONMENTAL PROTECTION: THE POTENTIAL MISFIT BETWEEN EQUITY AND EFFICIENCY

A. DAN TARLOCK*

Last week we published part of a memo sent by Lawrence Summers, the chief economist of the World Bank, to some colleagues. The memo pondered whether the Bank should 'encourage more migration of dirty industries to the third world' and said that 'the economic logic of dumping a load of toxic waste in the lowest-wage country is impeccable.' We objected to Mr. Summers' language but said his economics were hard to answer.¹

I. INTRODUCTION: THE CASE FOR CONSTRAINING ENVIRONMENTAL REGULATION WITH EQUITY

Environmental controversies are generally disputes about how natural resources should be used. Economists have structured this debate by reducing the range of possible alternatives to either of two choices: the promotion of economically efficient uses of resources or the fair or equitable distribution of resources.² The above quotation is a classic example of an argument made both in the name of efficiency and equity. Multi-national corporations frequently make the argument to justify resource exploitation around the globe. Developing countries often make the argument in the name of equity rather than efficiency when they assert a right to a fair share of the earth's resources in order to counter the "new" environmental economics which argues that high environmental standards will promote long run efficiency.³

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1. *Pollution and the Poor: Why "Clean Development" at Any Price is a Curse on the Third World*, THE ECONOMIST, Feb. 15, 1992, at 18.

2. EDITH STOKEY & RICHARD ZECKHAUSER, A PRIMER FOR POLICY ANALYSIS 292 (1978). Efficiency is generally defined by the Pareto criterion. An allocation of resources is efficient if it makes at least one person better off and no person worse off. *Id.* at 270. Equity is defined as "[a] more desirable distribution of goods and services among the members of the society" *Id.* at 293. The literature on these theories and their limitations is endless. A PRIMER FOR POLICY ANALYSIS remains a reliable guidebook. Relevant literature that touches on environmental issues is cited throughout this article.

3. Since the 1972 United Nations Conference on the Environment in Stockholm, developing countries have generally urged that they have an "equitable" right to pollute. This sort of equity is defined as an equal opportunity to develop the same kind of consumer society enjoyed by developing

While the issue of developing versus developed areas, or North versus South equity, is at the heart of global environmental politics, similar issues arise within the United States and other developed countries. The management of natural resources to promote environmental quality carries forward the long tradition of government intervention in the market to promote efficiency at the expense of equity.⁴ Domestic groups such as livestock grazers, the timber industry, and western water users have generally enjoyed federal subsidies that are difficult to justify in the name of efficiency.⁵ To maintain the status quo, domestic groups which in the past two decades have lost political, and thus economic, power as a result of the environmental movement—and are thus threatened with the withdrawal of federal subsidies for water development and resource extraction—rely on equity arguments with increasing frequency.⁶

Globally, the legal problem of reconciling absolute sovereignty with environmental imperatives is intertwined with the problem of north-south resource control and distribution. Developed nations have made a number of major good faith efforts to address these issues, but their efforts are hampered by two underlying and related problems. First, prevailing theories of welfare economics stress present resource consumption over deferred consumption.⁷ Second, the “mainline” environmental community has difficulty factoring social

countries, regardless of the social costs. At the Stockholm conference developing countries, led by Brazil and India, claimed the legal right to degrade their environments while promoting their own economic development as an inherent attribute of national sovereignty. LYNTON K. CALDWELL, *INTERNATIONAL ENVIRONMENTAL POLICY: EMERGENCE AND DIMENSIONS* 57 (1990); Louis B. Sohn, *The Stockholm Declaration on the Human Environment*, 14 HARV. INT'L L.J. 423 (1973). This position has strong support in international law. Under classic international law all nations are of equal dignity and have the exclusive right to exploit their natural resources except when state activities cause transboundary harm. This principle was recently reaffirmed in Principle 2 of the Draft Principles for Encouraging Environmentally Responsible Development, prepared for the 1992 Rio de Janeiro Environmental Summit, reprinted in *Draft of Environmental Rules: "Global Partnership"*, N.Y. TIMES, Apr. 5, 1992, § 1, at 10 [hereinafter *Draft Principles*].

4. The rationale for environmental protection remains a subject of intense controversy. The debate is basically between ethical and economic justifications. To counter arguments that pollution control statutes are limited to the promotion of efficient levels of environmental degradation, Mark Sagoff has argued that these acts put “an ethical concern with public safety and health ahead of economic and commercial interests.” Mark Sagoff, *The Principles of Federal Pollution Control Law*, 71 MINN. L. REV. 19, 79 (1986). This article does not address this debate. Rather, it argues that both economically and ethically justified regulatory programs tend to ignore the program's effects on groups in society without political and economic power to assert their interests.

5. See, e.g., RICHARD W. WAHL, *MARKETS FOR FEDERAL WATER: SUBSIDIES, PROPERTY RIGHTS, AND THE BUREAU OF RECLAMATION* (1989); RICHARD L. STROUP & JOHN A. BADEN, *NATURAL RESOURCES: BUREAUCRATIC MYTHS AND ENVIRONMENTAL MANAGEMENT* (1983).

6. John Leshy develops this point brilliantly in John D. Leshy, *Unraveling the Sagebrush Rebellion: Law, Politics and Federal Lands*, 14 U.C. DAVIS L. REV. 317 (1980).

7. The traditional view is well articulated in Stephen F. Williams, *Running Out: The Problem of Exhaustible Resources*, 7 J. LEGAL STUD. 165 (1978).

equity into environmental protection. Early in the environmental movement, William Baxter summed up the problem as people versus penguins, a short-sighted, simplistic dichotomy.

The welfare economics of the argument that poor areas will receive net benefits from traditional development (such as mineral extraction, industrialization, and chemically dependent agriculture) illustrates the complexities of modern environmentalism. According to traditional economic analysis, development is likely to be an efficient allocation of resources, even after all external pollution costs are taken into account. To a welfare economist, pollution is never per se bad but is simply a warning sign that resources are being allocated inefficiently. Thus, the optimum level of external costs⁸ is never zero but some level that varies according to the damage caused by the activity. The reasoning goes as follows: Development in less developed economies—be they domestic or international—promotes efficiency because the external costs of pollution are lower in poor areas and the marginal costs⁹ of pollution control are likely to exceed the benefits.¹⁰

Modern global environmental economists challenge this assumption in ways that trigger new equity arguments. They argue that the efficiency of traditional development holds true for the short but not the long run.¹¹ Welfare economics is biased in favor of present consumption,¹² and many modern economists challenge this bias arguing that given the extent of existing global environmental degradation, the marginal value of natural or non-degraded resources is likely to rise in the future.¹³ The new global environmental economics is thus premised on the idea that sustainable development is superior to rapid

8. External costs are the costs of an activity, such as pollution damage, which are not borne by the producer of the activity. The failure of the producer of the activity to reflect the external costs in the price of the product is an example of market failure. The resulting divergence between the private and social cost of the activity results in a presumptively sub-optimal allocation of resources. See WILLIAM J. BAUMOL & WALLACE E. OATES, *THE THEORY OF ENVIRONMENTAL POLICY* (2d ed. 1988).

9. In brief, the marginal cost of the activity is the cost of producing the last increment of the good. RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW* 8 (3d ed. 1986). Economists generally advocate the use of marginal cost pricing as the best method for consumers to compare the value of one good with another.

10. Globally, the powerful efficiency argument merges, in the eyes of developing countries and many others, with north-south equity.

11. DAVID PEARCE ET AL., *SUSTAINABLE DEVELOPMENT: ECONOMICS AND ENVIRONMENT IN THE THIRD WORLD* 1 (1990).

12. Welfare economics takes humankind as it finds it and argues that from birth to death, we would rather have something today than tomorrow. There is no possibility that consumers can transcend their fixed preferences and current level of impatience to consume. See Bryan G. Norton, *Thoreau's Insect Analogies: Or, Why Environmentalists Hate Mainstream Economics*, 13 ENVTL. ETHICS 235 (1991). The marginal productivity of capital theory argues that because of alternative investment opportunities, capital is worth less in the future and, thus, future value is heavily discounted.

13. PEARCE, *supra* note 11, at 2.

consumption.¹⁴ Developing countries often object on fairness grounds to this latest import from the developed world in the same manner as landowners in the Yellowstone Basin and the Texas Hill Country where efforts are underway to replace previously unrestrained development with sustainable development.

The environmental community has not been insensitive to the equity argument but has had a difficult time incorporating these considerations into environmental protection initiatives. In both domestic and global environmental policy, equitable distribution is generally subordinated to economic efficiency. Both classic welfare economics and the new environmental economics come from the same utilitarian tradition which stresses *aggregate* welfare, often at the expense of identifiable communities within society. Environmentalism is driven by scientific and moral imperatives which transcend both individual and national self-interest. In short, environmental protection is right for everyone, rich and poor.

In the environmental context, two strong justifications are offered for favoring economic efficiency over distributional equity. First, the promotion of allocative efficiency is consistent with distributional equity.¹⁵ Second, distributional claims are often perceived as undermining the very objectives of environmental regulation because they often take the form of property rights claims asserted to trump environmental programs.¹⁶

Equity or distributional considerations are no longer as secondary as they once were in the environmental agenda. In the United States¹⁷ and throughout the world, equity considerations are an increasingly important component of policy and legal debates. Equity principles suffuse the Draft principles for Encouraging Environmentally Responsible Development.¹⁸ Although they are intertwined, equity claims

14. Jeremy J. Warford, *Environmental Management and Economic Policy in Developing Countries*, in ENVIRONMENTAL MANAGEMENT AND ECONOMIC DEVELOPMENT 7-8, (Gunther Schramm & Jeremy J. Warford eds., 1989).

15. E. Donald Elliot, Jr., *A Cabin on the Mountain: Reflections on the Distributional Consequences of Environmental Protection Programs*, 1 KAN. J.L. & PUB. POL'Y 4, 8 (1991).

16. Professor Dale Goble has criticized the Fish and Wildlife Service's Wolf Recovery Plan for the Northern Rocky Mountains, in part, because "[a] consistent undertone in the *Plan* is the presumption that cattle and sheep rather than wolves are the rightful users of public lands." Dale D. Goble, *Of Wolves and Welfare Ranching*, 16 HARV. ENVTL. L. REV. 101, 115 (1992).

17. Professor Richard Levy has observed that the first domestic environmental debates posed the issue as economic development versus environmental protection, but that "[i]n the second generation, the environmental gains to be had are less clear cut, less evenly distributed, and more costly." Richard E. Levy, *Domestic Environmental Policy*, 1 KAN. J.L. PUB. POL'Y 65 (1991).

18. Draft Principles, *supra* note 3. Principle 3 provides that the "right to development must be fulfilled so as to equitably [sic] meet developmental and environmental needs of present and future generations." Principle 6 recognizes the "special situation and needs of developing countries, . . ." and

take three basic forms: (1) environmental programs disadvantage those who are already relatively economically powerless and thus should be modified to avoid the harm;¹⁹ (2) special groups should be granted hardship exemptions from uniform, high environmental standards,²⁰ and; (3) direct transfer payments should be made from rich to poor, either within or between nations.²¹

This article is concerned with the relationship between maintaining ecosystem integrity and recognizing equity claims asserted by the poor and by ethnic minorities.²² My thesis is premised on the assumption that equity claims have often been ignored by environmentalists, that there is *some undetermined degree* of legitimacy to these claims and that means must be found to accommodate equity and efficiency without sacrificing the basic objectives of environmentalism. Environmentalists have paid insufficient attention to the equity and distributional impacts of resource conservation and environmental protection, and as a result the implementation of these universal norms should be constrained by fairness or justice considerations.

The problem is not with the objectives of environmentalism but with the methods of their implementation. Advocates of ecosystem protection have developed powerful scientific and ethical arguments to justify aggressive protection of ecosystem integrity. The basic idea, articulated by Garrett Hardin in *The Tragedy of the Commons*,²³ is that strict limits must be placed on the use of natural resources to prevent their destruction from overuse. Ecosystem protection is increasingly accepted as *the* moral imperative of the 21st century. The distinguished environmental historian Roderick Nash has argued that ecosystem protection as a transcendent value is a logical progression of the Enlightenment ideals of justice and human dignity. "A biocentric ethical philosophy . . . can be understood . . . as both the end and a

Principle 23 recognizes a correlative equity that contributions to environmental protection should be proportional to the contribution to global environmental degradation. Principle 22 recognizes the role of indigenous peoples in environmental management.

19. Regina Austin & Michael Schill, *Black, Brown, Poor & Poisoned: Minority Grassroots Environmentalism and the Quest for Eco-Justice*, 1 KAN. J.L. PUB. POL'Y 69 (1991).

20. See Daniel B. Magraw, *Legal Treatment of Developing Countries: Differential, Contextual, and Absolute Norms*, 1 COLO. J. INT'L. ENVTL. L. & POL'Y 69 (1990). Professor Magraw examines the use of equity in international law to accommodate the economic claims of developing countries. He distinguishes between two types of departures from absolute standards: differential norms, which apply lesser standards for hardship reasons, and contextual norms which allow case by case balancing of special considerations.

21. Ved P. Nanda, *Developed Countries' Assistance to the Developing World for Environmental Protection*, 1 KAN. J.L. & PUB. POL'Y 27 (1991).

22. The approaches suggested, of course, apply to all efficiency-equity controversies.

23. Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

new beginning of the American liberal tradition."²⁴ As with all universal ideals, the advocates of these ideals have difficulty appreciating the human costs of achieving these goals. In the case of environmental protection, behavior which does not conform to the ideal is condemned and strenuous efforts are made to modify it. In many cases, there is no justification for activities which cause environmental damage and a strong justification to impose the costs of harm prevention on the activity. Both efficiency and corrective justice justify many environmental regulations, but in some cases there is a justification for tempering environmental objectives with equity.

II. THE HISTORICAL ROOTS OF THE SUBORDINATION OF EQUITY TO EFFICIENCY

A. *Parks Not People*

Modern environmentalism is the heir of two intertwined movements of the late nineteenth and twentieth century; progressive conservationism and the preservation movement. Much of the popular history of early twentieth century resource issues centers on the Miltonic struggle between the hard-edged utilitarian conservationist Gifford Pinchot and the patron saint of both preservation and modern environmentalism, John Muir. Focusing on the dichotomy between rational exploitation and preservation,²⁵ however, ignores the important common elements in which many resource management problems are rooted. The two concepts that came to define resource conservation, wise use and preservation,²⁶ were also ideals of the Protestant elite which was losing influence to non-English immigrants and the newly wealthy.²⁷ Both conservationists and preservationists shared

24. RODERICK NASH, *THE RIGHTS OF NATURE* 160 (1989).

25. RONALD A. FORESTA, *AMERICA'S NATIONAL PARKS AND THEIR KEEPERS* 16-18 (1984), uses the dichotomy to explain the Forest Service's opposition to the creation of the Park Service in 1916 and the location of the agency within the Department of Interior rather than the Forest Service. Between 1891 and 1905, forest reserves were administered by the public land agency, the Department of Interior. But Gifford Pinchot persuaded President Theodore Roosevelt to transfer the reserves from the corrupt Department of Interior to his Division of Forestry where they would be wisely administered. See also SAMUEL DANA & SALLY K. FAIRFAX, *FOREST AND RANGE POLICY* 79-83 (1980).

26. The Kennedy-Johnson administrations tried to merge the two ideas into a new conservation. See Secretary of the Interior Stewart L. Udall's important book, *THE QUIET CRISIS* (1963), expanded in *THE QUIET CRISIS AND THE NEXT GENERATION* (1988). I have explored the collapse of classic conservation and its replacement with the modern environmental movement in A. Dan Tarlock, *The Quiet Crisis Revisited*, 33 ARIZ. L. REV. (forthcoming 1992).

27. RICHARD HOFSTADER, *THE AGE OF REFORM* (1955), articulated the theory that progressivism was a reaction to the status revolution of post-Civil War America. Grant McConnell, *The Conservation Movement-Past and Present*, 7 W. POL. Q. 463 (1954) remains the leading discussion of the link between conservation and progressive politics. Both conservation and preservation were a reaction to the perceived evils of unrestrained private exploitation of our natural resources. The scientific informa-

the core idea that enlightened, scientifically-based resource management is an essential public function. Proponents of each idea were driven by a profound sense that they were right.²⁸

The relative indifference to the distributional consequences of environmental protection has its roots in the scientific conservation movement's indifference to the consequences of rational or scientific resource management on individual landowners. This stems both from the scientific basis, as well as the politics, of the conservation movement. More importantly, this indifference to consequences has been assimilated into the modern United States environmental movement which in turn serves as the model for global environmentalism.

Classic conservation was justified on three powerful interlocking grounds: It was scientifically sound,²⁹ morally right, and economically efficient. The movement was an effort to redress the adverse consequences of the uneven distribution of resources between individuals that occurred during western settlement. But, in the process of correcting perverse distributions, the impacts of conservation on the poor and minorities were often ignored, or more accurately were simply accepted as a modest price for establishing more rational resource use policies that had to be adopted in the face of bitter opposition from western commodity users.³⁰

tion that fueled this reaction was collected during pre- and post-Civil War western explorations which included a number of gifted scientists and naturalists. In his masterful study of the western exploration, William Goetzman observes that

[t]he geologists and topographers were members of a newer elite community which was fast replacing that formed by the old army. As such, they often saw the West in terms of the scientific rather than military problems involved. . . . Out [of] this western experience came conservation and the first great national agencies dedicated to that proposition.

WILLIAM H. GOETZMAN, *EXPLORATION AND EMPIRE* 356 (1966).

28. Robert Nelson has stressed the moral over the scientific basis of progressive conservationism. See, e.g., ROBERT H. NELSON, *THE MAKING OF FEDERAL COAL POLICY* (1983).

29. The classic articulation of the scientific basis of conservation is SAMUEL P. HAYS, *CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890-1920* (1959).

30. From the creation of the Forest Reserves in 1891 to the present, there have been battles for the soul of the West. Since World War II, there have been periodic major public land battles over who controls exploitation entitlements on public lands. WILLIAM L. GRAF, *WILDERNESS PRESERVATION AND THE SAGEBRUSH REBELLIONS* (1990), surveys the history of public land management from the failed efforts to establish a scientific national irrigation policy in the 1870s and 1880s to the failure of the Sagebrush Rebellion in the 1980s to cause the divestment of federal lands. Also of note was Senator McCarran's effort between 1945-1948 to cripple the Grazing Service and transfer grazing lands to private ownership. See E. LOUISE PEPPER, *THE CLOSING OF THE PUBLIC DOMAIN: DISPOSAL AND RESERVATION POLICIES 1900-1950* (1951). This effort failed in part because of the efforts of Bernard DeVoto which triggered the post-war preservation movement. The movement revived in the 1980s as a reaction to the application of federal environmental laws to public lands. Western resource users mounted a strong campaign to gain control of the public lands but this Sagebrush Rebellion failed both legally, Nevada *ex rel. Nevada State Bd. of Agric. v. United States*, 512 F. Supp. 166 (D. Nev. 1981), *aff'd*, 699 F.2d 486 (9th Cir. 1983), and politically. Ironically, many advocates of market allocation of

Politically, the conservation movement pitted government ownership and regulation of natural resources against unrestrained private exploitation. The West was settled before the federal government could assert effective control over its resources and before a scientific and political consensus developed to support the notion that resources should be publicly managed rather than exploited in response to market demand. The history of natural resources law as exemplified by the doctrine of prior appropriation, the Mining Law of 1872, and the issuance of Taylor Act grazing permits is of the legislative and judicial legalization of the grab. Progressive conservationists and their successors have struggled to limit the entitlements to water, minerals, and public lands claimed under these laws, but the result of this continuing struggle merely identifies most distributional objectives as perverse.³¹

Ultimately, the most profound and troubling legacy of the conservation movement's claim to moral superiority has been to project landscapes devoid of humanity except an enlightened middle class. Conservation was initially promoted to limit ranchers—and their erosion-causing animals—access to public lands. Indian policy was formulated to get Indians off their reservations or to populate those reservations with mythic rather than deprived real people.³² Cities were designed to foster an ideal high culture and thus uplift the emigrant rather than to accommodate those who actually lived there.³³ Daniel Burnham's famous White City created for the 1893 Columbian Exhibition in Chicago presented "a much praised vision of urban life at its noblest and most civilized,"³⁴ one "that achieved 'perfection' by segregating rural and urban utopias from the economy and environment that sustained them."³⁵ Finally, the ideal national park remains one empty of all visitors, except perhaps a few PhDs quietly contem-

public lands realized that the application of efficiency criteria would take away their subsidized entitlements. John Leshy, *Sharing Federal Multiple-Use Lands*, in *RETHINKING THE FEDERAL LANDS* 272 (Sterling Brubaker ed. 1984).

31. See Florence Williams, *Sagebrush Rebellion II: Some Rural Counties Seek to Influence Federal Land Use*, *HIGH COUNTRY NEWS*, Feb. 24, 1992, at 1.

32. See BRIAN W. DIPP, *THE VANISHING AMERICAN* (1982).

33. A recent history of Chicago Architecture up to World War I observes that the City Beautiful movement, which flourished in Chicago, created settings that "excluded or disguised in varying degrees, industrial production and immigrating and working-class people and their cultures; thus, as in synecdoche, particular parts of the city came to represent the whole." DANIEL M. BLUESTONE, *CONSTRUCTING CHICAGO* 207 (1991).

34. WILLIAM CRONON, *NATURE'S METROPOLIS: CHICAGO AND THE GREAT WEST* 342 (1991).

35. *Id.* James Gilbert's fine study of the 1893 Columbian Exhibition notes that the directors rejected offers by the Colored Man's Association to construct a dignitary grandstand for fear that there would be greater demands for Afro-American participation. The directors even rejected a proposed display of statistics "revealing the progress of the 'colored race since emancipation.'" JAMES B. GILBERT, *PERFECT CITIES: CHICAGO'S UTOPIAS OF 1893* at 96 (1991).

plating the scenery and studying the ecosystem.³⁶

The idea of preserving ecosystem integrity and thereby assuring biodiversity is relatively new, but it is rooted in the conservation movement's core idea that resources should be scientifically, that is rationally, managed to serve the public interest.³⁷ Biodiversity preservation builds on the legacy of the preservation movement which broke off from progressive conservationism before World War I. Until the 1960s, rational management meant primarily commodity production. The two principal objectives of modern environmental protection—the elimination of involuntary exposure to toxic substances and the protection of biodiversity—expand this tradition. Led by John Muir, the preservation movement sought to lock up resources from all exploitation.³⁸ The initial rationalizations were aesthetic and spiritual, but Muir's vision has now been recast as ecosystem preservation. Just as the Talmudic Rabbis sought to preserve the Torah by "building a wall around it," preservationists sought to preserve ecology by fencing the human world out. The fortress concept is increasingly rejected as fundamentally wrong and unfair; too static and atomistic. Biota do not exist in isolation to their surroundings, including their human surroundings.³⁹

There is no simple answer to the right balance between human intervention and the maintenance of natural systems, but it is clear that the vision of areas untouched by humans is no longer viable for both the developed and developing world.⁴⁰ Too many people were unjustifiably hurt in the effort to conserve resources. The polarization of resource use debates between "locking up" and unlimited exploitation is a false choice.

36. This, of course, is somewhat of an overstatement of the intense management debate about the balance between visitor access and preservation of the natural beauty and ecosystem of the units of the system, especially the Western Crown Jewels. See FORESTA, *supra* note 25, at 93-127 (1984), for a history of efforts to restrict and expand visitor access.

37. For an ambitious attempt to portray John Muir as both a saint and scientist, see STEPHEN FOX, JOHN MUIR AND HIS LEGACY: THE AMERICAN CONSERVATION MOVEMENT (1981).

38. The debate over the "Popper" proposal to declare the efforts to settle the Great Plains with an even distribution of settlements and farms and ranches as a failure, and to replace it with the Buffalo Commons illustrates this.

39. See CONSERVATION FOR THE TWENTY-FIRST CENTURY (David Western & Harry C. Pearl eds., 1989); Kenneth Iain Taylor, *Why Supernatural Eels Matter*, in LESSONS OF THE RAINFOREST 184, 194 (Suzanne Head & Robert Heinzman eds., 1990) ("[O]ur best, and perhaps last, remaining option may be for us to swallow our pride and concede that it is the indigenous peoples who know how to take care of the rainforests- and let them go on doing it.").

40. It is significant that revisionist western and urban historians are now putting people, often the poor and the oppressed, back into the physical landscape. See, e.g., PATRICIA LIMERICK, THE LEGACY OF CONQUEST: THE UNBROKEN PAST OF THE AMERICAN WEST (1987); GILBERT, *supra* note 35.

B. Northern New Mexico: Little Equity For the Poor

The fate of Hispanic landowners in northern New Mexico documented by John Nichols in *The Milagro Beanfield War* illustrates the triumph of efficiency over equity in the evolution of conservation. Up until about 1880, Hispanic communities produced agricultural crops, selling the surplus in the Santa Fe area. Hispanics also developed a thriving sheep industry⁴¹ which was dependant on communal grazing privileges protected by the Treaty of Guadalupe de Hildago. In the 1880s, however, a large and environmentally destructive cattle industry developed with the new ranchers expanding their holdings under homestead laws which failed to recognize the climatic differences between the arid West and the humid Middle West. The story of the manipulation of the Hispanic treaty guarantees is both complicated and sad with the net result being a large transfer of land from Hispanics to Anglos.⁴² The Hispanic communities' communal rights were often lost in the corrupt process of adjudicating land claims to make way for Anglo homesteaders. All unconfirmed communal lands reverted to the federal government and became part of the public domain subject to disposition, most often to Anglos.

Federal legislation was necessary to correct the abuses of the disposition era in public land law, but again the benefits of these corrections came at the expense of Hispanics. The Forest Reserves Act of 1891 led to the creation of our national forest system. Under the Forest Service's direction, the Santa Fe, Carson and Cibola National Forests were opened to grazing. While the Forest Service recognized prior use rights, Hispanics did not benefit because many of those rights were sold to large ranchers with disastrous results for the native communities:

The loss of so much rangeland, along with the rapid expansion of the commercial livestock business, had the effect of imprisoning both the Hispanic and Indian populations of New Mexico upon a land base entirely inadequate to their needs. At the same time it prohibited the colonization of new areas and the formation of new villages as a way of accommodating their growing populations.⁴³

Water use regulation inspired by conservationism was equally if

41. MARC SIMMONS, *NEW MEXICO: AN INTERPRETIVE HISTORY* 156-57 (1988). The Indians were rendered powerless during and immediately after the Civil War by federal policy.

42. See VICTOR WESTPHALL, *THE PUBLIC DOMAIN IN NEW MEXICO 1854-1891*, at 42-65 (1965).

43. SUZZANE FORREST, *THE PRESERVATION OF THE VILLAGE: NEW MEXICO'S HISPANICS AND THE NEW DEAL* 21 (1989). This book is an excellent history of the influence of liberals such as Mary Austin and John Collier, who fled to northern New Mexico to escape the frenzy of urban life and on New Deal efforts to improve the economic and social conditions of Indians and hispanics.

not more detrimental to Hispanics than the efforts to reallocate land. A complex web of community ditch associations (acequias) already existed to divert and share the varying natural flows of the Rio Grande and its tributaries among the Hispanic farmers, but as New Mexico adopted an irrigation economy, special districts were created to provide more dependable supplies. Many Hispanic subsistence farmers lost their lands when they could not pay the assessments levied by the new districts. The problem was typified by the experience of the Middle Rio Grande Conservation District formed in 1925.⁴⁴ Many acequia associations were eliminated by a dubious project in the name of rational resource management when seventy old headgates were consolidated into four main diversion points. The cost of the project was transferred to water users who were ill-equipped to pay for whatever was gained in increased efficiency. Foreclosures were rampant during the depression, stripping Hispanic farmers of their ability to draw a living from the land.⁴⁵

Distribution considerations in areas such as New Mexico were easy to ignore both on moral and economic grounds. In Aristotelian terms, conservation was seen as corrective justice.⁴⁶ Conservation was thus seen as a morally and economically justified program of subsidy recapture. Entitlement arguments based on redistribution would have been seen as perverse. Nonetheless, entitlements based on the grab were fundamentally illegitimate; acquired by the misuse of public resources. As an economic matter, entitlements such as railroad land grants were often subsidies to undeserving parties.

This legacy of ignoring or minimizing distributional concerns has been assimilated into modern environmentalism including ecosystem preservation or biodiversity.⁴⁷

III. EQUITY AND EFFICIENCY: DEFINITIONS AND REMEDIES

This article uses two common meanings of equity and fairness;

44. IRA CLARK, *WATER IN NEW MEXICO: A HISTORY OF ITS MANAGEMENT AND USE* (1987).

45. STEVEN SHUPE & JOHN FOLK-WILLIAMS, *THE UPPER RIO GRANDE: A GUIDE TO DECISION-MAKING* 11-16 (1988).

46. See Thomas C. Grey, *Property and Need: The Welfare State and Theories of Distributive Justice*, 28 STAN. L. REV. 877, 883 (1976).

47. The distributional aspects of environmentalism were addressed in a 1991 symposium held at the University of Kansas College of Law. Symposium, *Environmental Equity in the 1990s: Pollution, Poverty, and Political Empowerment*, 1 KAN. J.L. & PUB. POL'Y 1 (1991). The keynote address by Professor E. Donald Elliot, Jr. conceded that the poor bear a disproportionately high cost of environmental protection, but concluded that environmental protection was a happy marriage of efficiency and equity. "[A]t the same time that it is increasing allocative efficiency, it is also increasing distributional equity because the poor and other disadvantaged groups are probably, disproportionately, the beneficiaries of our environmental protection programs." Elliot, *supra* note 15, at 8.

first, fairness in the sense of what it once meant in constitutional equal protection law, and second fairness as envisioned by those who advocate recognizing community rather than individual values. Much equal protection law is justified on the theory that the impact of universal norms must be carefully examined when groups with limited access to the political process are adversely affected.⁴⁸

To define distribution, this article also adopts two frequently used frameworks—political theory and welfare economics—which have different focuses, but ultimately converge since they share the same roots. Political philosophy asks; what is the ideal distribution of resources in a society? Welfare economics answers this question by assuming that the ideal distribution is produced by efficiency unless other considerations—equitable or distributional—are sufficiently compelling to override this goal of efficiency.

Efficiency seeks net improvements in the allocation of resources, while equity is a normative judgment about the benefits and burdens of an activity, focusing on the impact of efficiency measures on different groups. A judgment that a certain allocation of resources is efficient but inequitable can constrain efficiency when the distributional impacts are deemed unacceptable.⁴⁹

Some readers may conclude that I have erroneously inverted the relationship between efficiency and equity. Environmentalists often object to using efficiency or “economic” considerations to limit environmental regulations that may be justified on “higher” moral grounds.⁵⁰ In contrast, I characterize the justifications for environmental regulation as promoting efficiency and argue that sometimes equity is ignored for two reasons. First, welfare economics is increasingly being modified so as to justify long term environmental protection as efficient. Second, environmentalists sometimes fail to see the equity basis of an “economic exemption argument.”

Merely recognizing that equity is often subordinated to efficiency does not immediately suggest a remedy. Incorporating fairness considerations in modern environmental policy is complex. Equity claims must be screened for legitimacy to prevent their use as vehicles for undermining necessary environmental protection. Universal norms are necessary because the three major lines of environmental analysis

48. JOHN H. ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (1980).

49. WILLIAM J. BAUMOL & WALLACE E. OATES, *ECONOMICS, ENVIRONMENTAL POLICY AND THE QUALITY OF LIFE* 174-76 (1979).

50. *E.g.*, Sagoff, *supra* note 4, at 93, explores the economic and non-economic justifications for pollution control and argues that, at the margin, it is permissible to temper ethically-based pollution controls with benefit-cost analysis because “[a]t some point a duty of obligation [to minimize risks] becomes more a matter of virtue than an ethical requirement.”

converge on a set of justifiable imperatives and we must be careful to separate justifiable distributional claims from spurious ones.⁵¹

Three criteria can be employed to analyze fairness concerns and fashion appropriate accommodations. First, traditional property claims should be accorded prima facie recognition. Second, environmental evaluation procedures should include human, as well as natural ecology. Third, environmental protection programs should include incentives as well as prohibitions. Specifically, the concept of sustainable development must be incorporated into environmental policy to bridge the gap between environmental efficiency and fairness. Further, problematic as they may be, wealth transfers and subsidies have a legitimate role to play in environmental protection.

IV. PROPERTY, SENSITIVITY, SUSTAINABILITY AND SUBSIDY

Modern environmentalism merges the notion of land preservation spurred by Muir's efforts with the more recent ideas of reducing pollution by setting maximum emission standards to reduce pollution and the adoption of conservative risk management procedures to minimize long term health hazards.⁵² These three objectives form the basis of modern environmentalism and continue the subordination of equity to efficiency.

With the politics of global environmentalism pushing the distributional consequences of resource management to the forefront the U.S. development model⁵³ and the remedies used to correct its excesses are increasingly difficult to implement in both developed as well as developing countries.⁵⁴ Increasingly, land preservation, technology forcing emissions standards, and conservative risk assessment are sub-

51. See CHERYL SIMON SILVER, *ONE EARTH, ONE FUTURE: OUR CHANGING GLOBAL ENVIRONMENT* (1990).

52. Technology forcing standards and risk assessment are defended in Howard Latin, *Ideal Versus Real Regulatory Efficiency: Implementation of Uniform Standards and "Fine-Tuning" Regulatory Reforms*, 37 STAN. L. REV. 1267 (1985).

53. Post-World War II efforts to jump start development in third world countries through ambitious exploitation of natural resources and the rapid cultivation of new lands borrowed United States irrigation and agricultural technology. Likewise, the remedies that we devised to cope with the adverse impacts inherent in this sort of development are now being adapted for the developing world. For example, conservation programs modeled after United States efforts to control soil erosion and livestock grazing will be necessary to restore areas such as the Upper Pampanga River Basin in the Philippines and the Amazon Basin. John A. Dixon, *Multilevel Resource Analysis and Management: The Case of Watersheds*, in ENVIRONMENTAL MANAGEMENT AND ECONOMIC DEVELOPMENT, *supra* note 14, at 185, 194-96.

54. See JOHN A. DIXON, *ECONOMICS OF PROTECTED AREAS: A NEW LOOK AT BENEFITS AND COSTS* (1990) (arguing that local people must be involved in the establishment of protected areas and that in many cases it may be fair to compensate poor countries that are asked to forego development to produce global benefits).

ject to intense criticism in their countries of origin as well as developing countries.

The case against technology-forcing standards and conservative risk assessment is that they are inefficient themselves because cheaper means are available to achieve the same basic objectives.⁵⁵ Exclusive public land preservation, by "fencing" in high quality areas, is being rejected both in developed and developing countries⁵⁶ as more sophisticated biodiversity preservation models that incorporate both public and private ownership take its place.

Unfortunately, the United States' experience and its law provide very little guidance dealing with the distributional or fairness issues presented by our conservation and environmental models. In both the United States and the rest of the world, the environmental and cultural costs of these activities were neglected.⁵⁷ Constitutional law is designed to protect minorities singled out for disparate treatment. Unfortunately, environmental regulation does not fit the classic paradigm of racially motivated government action which violates the Equal Protection Clause.⁵⁸ The siting of hazardous waste facilities in black communities would be the best case to apply strict scrutiny, but efforts to prove that hazardous waste facility siting decisions were racially motivated have not been successful.⁵⁹

Happily, the United States' experience is not totally irrelevant, nor are we totally unable to incorporate equity considerations into environmental management. There are four promising approaches for incorporating equity into environmental protection: (1) the increased recognition of legitimate individual and group property claims; (2) increased sensitivity to equity claims in environmental impact analysis; (3) sustainable development; and (4) finally the use of subsidies as a bridge between environmental protection and equity. Each idea is fraught with problems and contradictions, but together they can sup-

55. See, e.g., Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333 (1985).

56. William M. Flevaris, *Ecosystems, Economics, and Ethics: Protecting Biodiversity at Home and Abroad*, 65 S. CAL. L. REV. 2039 (1992).

57. Warford, *supra* note 14.

58. *Village of Arlington Heights v. Metropolitan Hous. Dev. Corp.*, 429 U.S. 252, 264-71 (1977), sets out the standard of proof for discriminatory intent.

59. See Rachel D. Godsil, Note, *Remedying Environmental Racism*, 90 MICH. L. REV. 394 (1991). In addition, the Supreme Court has refused to extend strict scrutiny review to deprivations alleged to result from gross inequalities in the distribution of societal resources. *San Antonio Indep. School Dist. v. Rodriguez*, 411 U.S. 1 (1973). My colleague, Professor Linda Hirshman, argues that *Rodriguez* is inconsistent with the civic republican ideal. Linda R. Hirshman, *The Virtue of Liberality in American Communal Life*, 88 MICH. L. REV. 983 (1990).

plement and constrain efficiency-based environmental protection by allowing equity claims a greater voice than they have had in the past.

A. The Recognition of Property Claims

1. Exclusive Property Versus Liability Entitlements

Individual private property rights protected by specific relief historically have served as our major counter-weight to the promotion of efficiency; protecting the individual, rich or poor, from both other individuals and states seeking to shift resources in the name of efficiency. For example, the common law of nuisance originally did not allow the defendant to argue that the benefits of pollution were greater than the value of unpolluted property.⁶⁰ In addition, eminent domain was restricted to the taking of property for a public use. In recent years, however, property "rights" have been increasingly protected by the imposition of liability (damages) rather than enforcement of traditional property rights (injunctive relief) as part of an effort to promote the efficient allocation of resources.⁶¹ In short, the right to undisturbed enjoyment of property is no longer sacred if that right is challenged by a more economically efficient use that can pay a suitable price for the imposition on peaceful enjoyment. While this redefinition of property rights to incorporate efficiency is rooted in the progressive conservation movement,⁶² the trend has accelerated in recent years to accommodate competing demands for resources.

Incorporating efficiency into property rights can usually be justified on two grounds. First, it prevents wasting resources where there are no strong economic or moral justifications for excessive use of the resource.⁶³ Second, it eliminates or reduces a subsidy that can no

60. See, e.g., *American Smelting & Refining Co. v. Godfrey*, 158 F. 225, 229 (8th Cir. 1907) ("The rights of habitation are superior to the rights of trade, and, the rights of trade must whenever they are in conflict, yield to the primary or natural right."); *Whalen v. Union Bag & Paper Co.*, 101 N.E. 805 (N.Y. Ct. App. 1913), *overruled by* *Boomer v. Atlantic Cement Co.*, 257 N.E.2d 870 (N.Y. Ct. App. 1970). See also Paul M. Kurtz, *Nineteenth Century Anti-Entrepreneurial Nuisance Injunctions-Avoiding the Chancellor*, 17 WM. & MARY L. REV. 621 (1976).

61. Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972). While Calabresi and Melamed explicitly recognize that distributional considerations can trump efficiency, they are more concerned with the justice of transfer payments from the beneficiaries of pollution abatement to the polluter. An interesting example of the influence of Calabresi and Melamed on environmental rules is the debate over the proper measure of natural resources damages under CERCLA and the Clean Water Act. Proponents of efficient rules favor a liability rule of diminution in value over one of restoration. *But see* Heidi Wendel, Note, *Restoration As The Economically Efficient Remedy for Damage To Publicly Owned Natural Resources*, 91 COLUM. L. REV. 430 (1991).

62. See A. Dan Tarlock, *The Changing Meaning of Water Conservation in the West*, 66 NEB. L. REV. 145 (1987).

63. E.g. Peter S. Menell, *Beyond the Throwaway Society: An Incentive Approach to Regulating*

longer be defended on either economic or moral grounds. Nonetheless, there are times when subordinating equity to efficiency needs to be reevaluated and partially redressed. This argument will seem counter-intuitive, if not dangerous, to many environmentalists because such property claims are increasingly asserted to defeat legitimate environmental programs.

Current efforts by western ranchers seeking—in the name of custom and culture—to retain their subsidized entitlements to use public lands provide an ironic illustration of illegitimate entitlements. Finding their political base eroded, ranchers in Colorado, New Mexico and Utah are borrowing the tactics of environmentalists and Native Americans and are characterizing, in the name of equity, grazing permits as vested property interests, and therefore sacrosanct.⁶⁴ Environmentalists rightly oppose this transfiguration because steadfastly clinging to old often inequitably apportioned rights refuses to recognize the inherent limitations of nature. As Wallace Stegner recently put it: “Too often western states have been prosperous at the expense of their fragile environment, and their civilization has too often mined and degraded the natural scene while drawing most of its quality from it.”⁶⁵

In contrast to efforts by those who harvest marketable commodities on public lands to transform mere licenses into vested property rights, modern water rights law in Colorado illustrates the *legitimate* redefinition of property rights to include efficiency considerations. Colorado originally allocated its waters exclusively through judicial recognition and protection of private property rights. As the inefficiency of this practice became apparent in the 1960s, however, Colorado’s basic principle of water law, unyielding protection of “vested rights,” was replaced by the notion of “maximum utilization.”⁶⁶ This shift in focus allows the state engineer to consider all related sources of water in administering a basin and to confine users to “reasonable,” that is more efficient (and costly), means of diversion.⁶⁷

My argument is that recognizing and protecting individual and group property entitlements is in many cases a necessary condition for effective environmental protection and that it is possible to distinguish between legitimate and illegitimate claims. This argument is an exten-

Municipal Solid Waste, 17 *ECOLOGY L.Q.* 655 (1990) (analysis of the relationship between inefficient property rights and environmental degradation).

64. Williams, *supra* note 31.

65. Wallace Stegner, *Land of Hope, Land of Ruin*, N.Y. TIMES, Mar. 29, 1992, at E17; WALLACE STEGNER, *THE AMERICAN WEST AS LIVING SPACE* (1987) is a full articulation of his theory that the future of the West lies in recognizing the limits of geography.

66. *Fellhauer v. People*, 447 P.2d 986, 994 (Colo. 1968); *A-B Cattle Co. v. United States*, 589 P.2d 57, 61 (Colo. 1978).

67. *Alamosa-La Jara Water Users Protection Ass’n. v. Gould*, 674 P.2d 914 (Colo. 1983).

sion of the traditional tragedy of the commons argument. Economists and environmentalists have identified the absence of exclusive property rights as *the* cause of environmental degradation, urging that environmental quality be attained by property rights regimes that promote the efficient allocation of resources. My argument is that recognizing property claims can also be justified on fairness as well as efficiency grounds. Protecting inefficient settled expectations may create incentives for property owners to harmonize their land use practices with environmental objectives. Recent efforts to promote sustainable development by allowing local populations to profit from stewardship, discussed in Section C., illustrate the potential convergence of efficiency and equity.

2. Community Property Claims

Roman law recognized both individual and group property claims, but Anglo-American property law focuses only on individual claims. Communities attempting to control their fate must do so through sovereign, rather than property, powers. As Professor Sax has demonstrated,⁶⁸ communities have no legal standing to assert group property rights. This refusal to recognize community property claims is an example of the subordination of equity to efficiency. The most celebrated example of subordinated equity claims is the "Poletown" public use case.⁶⁹ To promote economic development in Detroit, an economic development commission, at the request of General Motors, condemned land in a Polish neighborhood for a new assembly plant so that General Motors could build more efficient, smaller cars.⁷⁰ The residents fought the condemnation both on the theory that the Michigan Environmental Protection Act of 1970⁷¹ protected cultural and social environments, and on the more traditional ground that the public purpose doctrine limits the exercise of eminent domain to projects designed to benefit the public generally. The majority of the Michigan Supreme Court, however, saw the case as a simple "slum" clearance project and held (and the United States Supreme Court has since agreed⁷²) that courts should defer to legislative judgments about what constitutes a public purpose.⁷³

68. Joseph L. Sax, *Do Communities Have Rights? The National Parks As A Laboratory of New Ideas*, 45 U. PITT. L. REV. 499, 499-502 (1984).

69. *Poletown Neighborhood Council v. Detroit*, 304 N.W. 2d 455 (Mich. 1981).

70. The company announced that it would close two body plants but would build a substitute facility in Detroit only if a suitable site was found in the area.

71. MICH. COMP. LAWS ANN. § 691.1201 (1987).

72. *Hawaii Housing Authority v. Midkiff*, 467 U.S. 229 (1984).

73. *Poletown*, 304 N.W.2d at 461.

Two Justices dissented, recognizing the inequity of the holding. Justice John W. Fitzgerald concluded that the power of eminent domain cannot be used for a simple private-private transfers, no matter how efficient, because the historic protection against the taking of private property for private use overrides efficiency.⁷⁴ Justice James L. Ryan echoed Justice Fitzgerald's fear that the security of private ownership was jeopardized by extending the power of eminent domain to allow private parties to decide the most efficient use of land.⁷⁵ But more significantly, Justice Ryan argued that the intangible costs of the loss of a stable ethnic community should be considered by the court in deciding whether the use was for a public purpose.⁷⁶

The current struggle to preserve acequia communities in northern New Mexico illustrates the questionable triumph of efficiency over equity involving the replacement of group or community rights with individual rights, a process that is being repeated around the world. The communitarian traditions of Spanish colonial policy survive in the acequia communities in northern New Mexico.⁷⁷ Villages share common ditches and laterals administered by a Mayordomo,⁷⁸ but individual water users hold shares in an acequia. Shares, like other appropriative water rights, are transferrable, but the transfer, and even the adjudication of the water right is deemed by many acequia members to raise issues of community equity.⁷⁹

Transforming a well understood custom of community rights thought to be reflected in property law into exclusive individual rights undermines the intricate web of personal relationships and histories of cooperation that define and bind a community. Normally, state adjudication of such rights is a desirable objective, transforming unqualified property rights into legally quantified rights. But, there is another perspective which suggests that there is no reason to disturb such cus-

74. *Id.* at 464 (Fitzgerald, J., dissenting).

75. To answer the argument that public economic development for General Motors was in the public interest, Justice Ryan reached back to Justice Cooley's distinction between the power to tax and the power to take. *People ex rel. Detroit & Howell R.R. v. Salem Township Bd.*, 20 Mich. 452, 477-78 (1870). Judge Cooley had seen the former as *more* limited than the latter, but Judge Ryan argued, in the face of the vast expansion of both the power to tax and the public use limitation, that there should be greater restrictions on the extension of the power of eminent domain to private corporations because the degree of interference with property is more intrusive. *Poletown*, 304 N.W.2d at 472-74 (Ryan, J., dissenting).

76. *Id.* at 470-71.

77. See MICHAEL MEYER, *WATER IN THE HISPANIC SOUTHWEST* 105-13 (1984).

78. See STANLEY CRAWFORD, *MAYORDOMO* xii (1988).

79. Stanley Crawford, *Dancing for Water*, 32 J. WEST 265 (1990), has described these community values.

tomary rights.⁸⁰ Describing an adjudication where acequia members were vastly outlawyered, Stanley Crawford observed that the process ignored "[a] kind of higher adjudication of the environment, you might say, that could be trying to tell us that fooling around with the elements is something we should think long and talk long and carefully about before anything else, and in ways that makes all of us more neighborly, not less so."⁸¹

The subordination of equity to efficiency is a problem in other countries as well. Litigation generated by the James Bay hydroelectric development in Quebec demonstrated, at least initially, a subordination process similar to the *Poletown* case. In 1971, the Cree tribe sought to enjoin the construction of the first phase of the project in an effort to protect their aboriginal hunting and fishing rights, claiming they had never been ceded.⁸² The trial court issued the injunction, but was reversed on appeal. The Quebec Court of Appeals, engaging in a balancing of the equities, gave great weight to the need for hydroelectric energy and little, if any, weight to the Indian's cultural claims.⁸³ The problem has since been addressed through increased sensitivity procedures, which are discussed in the next section.

If community property claims are to be recognized the hard question is determining which claims to recognize and how. Community, as it is now used in modern legal discourse, has several distinct meanings.⁸⁴ Many contemporary philosophers and legal theorists use the term as the articulation of universal values—Rousseau's the public good—following the traditional view of sovereignty articulated by Thomas Hobbs and John Locke that legal rights can only exist *between* the sovereign, the state, and the individual.⁸⁵ The term community, however, can also mean a physical space apart, preserving a distinctive set of cultural values that should be respected by the larger society.⁸⁶ This view is often articulated by ethnic groups and others wishing to opt out of the majority culture.

80. Cf. Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711 (1986).

81. Crawford, *supra* note 79, at 266.

82. See KENT MCNEIL, *COMMON LAW ABORIGINAL TITLE* (1989).

83. La Societe de Development de la Baie James c. Chef Robert Kanatewat, [1975] C.A. 166. Canadian interlocutory law is now much more favorable to aboriginal claims. Roger Townshend, *Interlocutory Injunctions in Aboriginal Rights Cases*, 3 CAN. NATIVE L. REP. 1 (1991).

84. For an up-to-date, state-of-the-art topographical map, see Stephen A. Gardbaum, *Law, Politics, and the Claims of Community*, 90 MICH. L. REV. 685 (1992).

85. Menno Boldt & J. Anthony Long, *Tribal Traditions and European-Western Political Ideologies: The Dilemma of Canada's Native Indians*, in *THE QUEST FOR JUSTICE: ABORIGINAL PEOPLES AND ABORIGINAL RIGHTS* 333, 342-43 (Menno Boldt & J. Anthony Long eds., 1985) [hereinafter *THE QUEST FOR JUSTICE*].

86. See MICHAEL WALZER, *SPHERES OF JUSTICE* (1983).

The unique legal status of Indian tribes which allows them to protect a land-based heritage is the major exception to the practice of denying recognition of community property rights. This unique status provides a possible framework to apply in other situations, although at the present time, the framework remains restricted to conquered peoples who have survived efforts to exterminate or assimilate them.⁸⁷ Indian law, following the law of nations, recognizes tribes as distinct units to which certain community rights run. The modern basis of tribal sovereignty is the necessity of maintaining the unit's relationship with a *specific* land and resource base. Ironically, this rich model⁸⁸ is admired around the world⁸⁹ at a time when the United States Supreme Court is divorcing tribal authority from its traditional anchor of a specific land base.⁹⁰ One domestic example of this principle is the recognition of subsistence hunting priority for both native and non-native rural Alaskans.⁹¹ The American example has now entered international environmental law. Principle 22 of the Draft Declaration of Principles for Encouraging Environmentally Responsible Development provides:

Indigenous people and their communities, *and other local communities*, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development."⁹²

Community rights are receiving some legislative recognition in the United States. In recent years small rural communities in the West have opposed large-scale water transfers to growing urban areas in an effort to avoid the fate of the Owens Valley in California. Ari-

87. See generally ROBERT A. WILLIAMS, JR., *THE AMERICAN INDIAN IN WESTERN LEGAL THOUGHT: THE DISCOURSES OF CONQUEST* (1990).

88. James Henderson argues that aboriginal rights have survived in the neutral liberal state because of respect for property, contract and the notion of restitution as the appropriate remedy for a wrong. James Youngblood Henderson, *The Doctrine of Aboriginal Rights in the Western Legal Tradition*, in *THE QUEST FOR JUSTICE*, *supra* note 85, at 185.

89. Canada has moved from neo-colonialism to assimilation to tribal self-determination. See *THE QUEST FOR JUSTICE*, *supra* note 85. See also P. D. Glavovi, *Environmental "Group" Rights for Indigenous South Africans*, 108 S. AFR. L.J. 67, 67 (1991) (American Indian Law is the proper model to protect South African tribes from resource development and conservation activities that threaten intact traditional tribal cultures).

90. *Brendale v. Confederated Tribes and Bands of the Yakima Indian Nation*, 492 U.S. 408 (1989). See Judith Royster, *Environmental Protection and Native American Rights: Controlling Land Use Through Environmental Regulation*, 1 KAN. J.L. & PUB. POL'Y 89 (1991); Joseph William Singer, *Sovereignty and Property*, 86 NW. U. L. REV. 1 (1991).

91. 16 U.S.C. §§ 3111-26 (1988). See 2 GEORGE C. COGGINS, *PUBLIC NATURAL RESOURCES LAW* § 18.03[6] (1990).

92. Principle 22 of the Draft Principles, *supra* note 3 (emphasis added).

zona passed legislation that both gives communities limited property rights to local water and imposes liability rules on transferees.⁹³ Similar legislation is pending in California.⁹⁴

However, the limited recognition and extent of group property rights suggests that community claims will generally be accommodated by environmental assessment processes that show greater sensitivity to these claims rather than by the creation of *de jure* community property rights.

B. Sensitivity Equity in Environmental Analysis

Sensitivity is a procedural rather than property solution to the problem of incorporating equity arguments. It recognizes that equity claims, generally expressed by communities, represent legitimate concerns.⁹⁵ It does not, however, endorse recognizing these claims as property rights on an *a priori* ranking system because the necessity of protecting environmental values precludes the adoption of a *per se* preference for one outcome over all others. Instead, environmental assessment procedures need to be expanded. They need to do more than identify physical impacts. In the United States, and throughout the world, there are a number of models for environmental assessment—from common law actions to environmental impact statements—but the scope of these models is too narrow.

Existing assessment procedures are primarily scientific processes and thus neglect cultural, social, and equity claims which are difficult to quantify. In the United States, plaintiffs challenging an environmental impact statement (EIS) must demonstrate that the EIS failed to discuss adequately "the causal relationship between a change in the physical environment and the effect at issue."⁹⁶ This reluctance to account for cultural or social claims can be partially explained by early efforts to use the National Environmental Policy Act ("NEPA")⁹⁷ as a tool for racial discrimination. Courts have correctly rejected efforts to

93. ARIZ. REV. STAT. ANN. §§ 45-552-556 (Supp. 1991) (rural groundwater transfers limited to percentage of land overlying owner possesses in the basin and conditioned on money transfers to local communities.)

94. CA.A.B. 2090, 1991-92 Cal. Reg. Sess. (2090) (no more than 20% of lands in public agency that transfers water may be followed as a result of transfer).

95. See Cy R. Oggins & Helen M. Ingram, *Does Anybody Win? The Community Consequences of Rural-to-Urban Transfers: An Arizona Perspective*, (Udall Center Issue Paper No. 2), May 1990, at 11. The author found that community leaders in rural Arizona facing the possibility of water transfers to Phoenix "perceive that legal rights to the use of water and natural distribution of water most strongly signal what water belongs to an area." *Id.* (emphasis added).

96. *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983).

97. 42 U.S.C. §§ 4321-4370a (1988).

define people as pollution in NEPA litigation,⁹⁸ and uniformly resisted expanding NEPA to cover cultural claims. This resistance has influenced environmental impact assessment generally.

The environmental impact assessment procedure enacted as part of the settlement of Cree aboriginal claims, discussed above, is a model of increased equity sensitivity. Settlement legislation enacted by the federal and Quebec provincial governments requires that all hydroelectric development be subject to environmental review. This legislation and the subsequent agreement has been construed to require both federal and provincial environmental assessments to minimize the impact of future hydroelectric projects on the Cree and their wildlife base.⁹⁹

Equity can also be promoted by allowing those people who are affected by an activity justified in the name of efficiency to veto the activity. However, this is merely a *de facto* group property right with even less chance of recognition than the group rights discussed above. In general, allowing identifiable groups to opt out of general environmental prohibitions is too drastic a remedy. Allowing groups to opt out of regulations or veto local projects would undermine the legitimate objectives of environmental legislation and will seldom promote efficiency. For example, courts in both Canada and the United States have properly refused to exempt Indian tribes from complying with conservation legislation such as the Endangered Species Act¹⁰⁰ or park protection.¹⁰¹ However, the persistence of veto arguments reflect potential subordinations of equity that need to be addressed.

A recent water rights case in northern New Mexico provides a fascinating illustration of a failed veto attempt, calling for a reexamination of an allocation process praised for its efficiency. In the early 1980s, a group of Albuquerque investors proposed a small ski resort in Rio Arriba County and purchased the necessary water right from acequia members. Under New Mexico law, a senior water right can be transferred to a new use if the senior proves that no junior right holders will be injured. The resort investors proved that no junior right holder would be injured, but other members of the acequia challenged the transfer arguing that it threatened to unravel the community. The

98. DANIEL R. MANDELKER, *NEPA LAW AND LITIGATION* Ch. 8 (1984).

99. *Cree Regional Authority v. Robinson*, 2 CAN. NATIVE L. REP. 41 (Federal Court, Trial Division, 1991).

100. *United States v. Billie*, 667 F. Supp. 1485 (S.D. Fla. 1987) (Endangered Species Act overrides treaty allowing killing of panthers for religious purposes); *United States v. Dion*, 476 U.S. 734 (1986).

101. *Regina v. Norn*, 3 CAN. NATIVE L. REP. 135 (Alberta Provincial Court, 1990) (Government may limit hunting guaranteed by treaty in national parks to preserve game for future generations).

challengers argued that a series of such transfers would decrease the members of the community available to maintain the common ditches and to administer the system and that the resort would destroy a distinctive local land-based culture. The trial judge agreed, holding that the transfer was contrary to the public interest because of impaired community values.¹⁰² The decision was reversed on appeal on the narrow ground that New Mexico law did not allow states to consider the public interest in transfers of existing rights, as opposed to new appropriations.¹⁰³ New Mexico has since statutorily extended third party standing to allow public interest challenges.

The current generation of Hispanic activists trying to preserve the unique culture of northern New Mexico urge that water use decisions should be moved from the state to the local level.¹⁰⁴ They argue that just as cities can preserve their distinctive architectural heritage through historic preservation districts, distinct ethnic communities should be able to preserve their culture by removing water rights from the market.¹⁰⁵

A recent National Academy of Sciences-National Research Council study questions the merits of local vetoes, but strongly endorses increased sensitivity to a wide range of local concerns through state and regional allocation and planning processes.¹⁰⁶ Conflicts such as the *Sleeper* case indicate the need for greater sensitivity to the impacts of situations where the purported efficiency gains are dubious. Historically, public interest concerns in western water allocation have been limited to giving state water administrators the power to prefer efficient to inefficient projects.¹⁰⁷ In recent years, however, recognizable public interest concerns have been expanded to include physical environmental values such as instream flow maintenance and contaminated irrigation drainage water. Nonetheless, public interest review in

102. *Ensenada Land & Water Ass'n. v. Sleeper*, No. RA-84-53(C) (N.M. Dist. Ct. June 2, 1985).

103. *Ensenada Land & Water Ass'n v. Sleeper*, 760 P.2d 787 (N.M. Ct. App. 1988), *cert. quashed*, 759 P.2d 200 (N.M. Ct. 1988). See Shannon A. Pardon, Note, *The Milagro Beanfield War Revisited in Ensenada Land & Water Association v. Sleeper: Public Welfare Defies Transfer of Water Rights*, 29 NAT. RESOURCES J. 861 (1989).

104. F. LEE BROWN & HELEN M. INGRAM, *WATER AND POVERTY IN THE SOUTHWEST* (1987), is a detailed and perceptive examination of the impact of "progressive" water development on local cultures and on efforts to resist this development.

105. Charles T. DuMars & Michelle Minis, *New Mexico Water Law: Determining Public Welfare Values in Water Rights Allocation*, 31 ARIZ. L. REV. 817 (1989).

106. COMMITTEE ON WESTERN WATER MANAGEMENT, NATIONAL RESEARCH COUNCIL, *WATER TRANSFERS IN THE WEST: EFFICIENCY, EQUITY, AND THE ENVIRONMENT* 129-32 (1992) (recognizing that hispanic communities have a strong case for control, but concluding that the public interest standard used to evaluate new appropriations and transfers should be expanded to include local cultural concerns).

107. CHARLES J. MEYERS ET AL., *WATER RESOURCE MANAGEMENT* 425-27 (3d ed. 1987).

a variety of forums needs to be expanded further to include the claims of community sustainability.¹⁰⁸

C. Sustainable Development

As environmentalists have become more sensitive to the human costs of environmentalism, they have sought to promote the concept of sustainable development. Sustainable development has been most discussed and promoted as the norm for developing countries but it applies to all economies. The standards and strategies being worked out for developing countries can be applied domestically as well. For example, efforts to transport people in this country within and between cities within the region by high speed rail as opposed to cars and short haul airplane flights promote sustainable development just as eco-tourism in a tropical rain forest does. Likewise, efforts underway in Southern California to steer land development away from the corridors necessary to sustain endangered bird populations are another example of domestic sustainable development.¹⁰⁹

1. What Does it Mean?

Increasingly, efforts to resolve the tension between efficiency and equity center on the concept of sustainable development. Sustainable development is the environmental community's attempt to put real humans back in the landscape and to harness economic incentives to implement environmental objectives. The concept has its roots in classic conservation practices such as safe yield for groundwater basins and forest management, but the current idea of sustainable development as a bridge between environmental protection and equity was articulated by the report of the World Commission on Environment and Development (the Brundtland Commission): "A world in which poverty and inequity are endemic will always be prone to ecological and other crises. Sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life."¹¹⁰

Despite efforts like the description above, sustainable development is, unfortunately, neither a self-defining term¹¹¹ nor a guarantee that equity considerations will in fact be incorporated into environ-

108. Idaho has come the closest by requiring consideration of the local public interest. IDAHO CODE § 42-203A(5)(e)(1990). See *Shokal v. Dunn*, 707 P.2d 441, 447 (Idaho 1985).

109. See Fred Bosselman, *Planning to Prevent Species Endangerment*, 44 LAND USE L. & ZONING DIG. 3, (1992).

110. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 43-44 (1987) [hereinafter OUR COMMON FUTURE].

111. Ronnie D. Lipschutz, *Wasn't the Future Wonderful? Resources, Environment, and the*

mental policies. At bottom, the goal remains the promotion of efficiency, but sustainable development rejects the traditional idea, articulated in the quote at the head of this article, that some environmental degradation is positive, arguing instead that "*natural capital stock* should not decrease over time."¹¹² This corrects the short-term myopia of traditional economics by defining efficiency over the long run as opposed to the short run, but does not insure that equity values will be recognized within the new framework.

Modern environmental ethics posit that moral values can be derived from science, rejecting the Greco-Christian duality between man and nature and the philosophical dictum that fact must be separated from value. The logical conclusion of this new ethic is that ecosystem preservation is equal, if not superior, to human use of natural resources. (Some have even suggested that humans have no right to survive.) Sustainable development is thus ultimately a principle to implement the cardinal environmental ethic that we owe a duty to conserve resources for future generations.¹¹³ At a minimum, both sustainable development and environmental ethics proceed on the assumption that the rapid exploitation of natural resources must be curtailed. If they diverge, it is because sustainable development introduces a reality constraint on ecosystem preservation by invoking the traditional notion of equity. People will not disappear from landscapes unless they are coerced, and to date environmentalism has sought its objectives through democratic rather than authoritarian controls.¹¹⁴

The Bruntland Commission and other studies make it clear that

Emerging Myth of Global Sustainable Development, 2 COLO. J. INT'L ENVTL. L. & POL'Y 35, 36-38 (1991) reviews the definitional literature.

112. PEARCE, *supra* note 11.

113. The seminal legal work is EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY (1989). The link between intergenerational equity and sustainable development is explicitly made in Lester R. Brown et al., *Picturing A Sustainable Society*, in STATE OF THE WORLD 173, 174 (Lester R. Brown Project Director, 1990).

Professor Lakshman Guruswamy, of the University of Arizona College of Law, has pointed out to me the tension between intergenerational equity and sustainable development. "[I]t has been argued, persuasively I think, that *intragenerational* equity is a prelude to intergenerational equity. To this extent intergenerational equity is not the linchpin of sustainable development." Letter from Lakshman Guruswamy to A. Dan Tarlock (June 16, 1992) (on file with the *University of Colorado Law Review*).

114. WILLIAM OPHULS, ECOLOGY AND THE POLITICS OF SCARCITY (1977), is the most comprehensive presentation of the argument that liberal democracy and environmentalism may not be compatible. Compare RODERICK NASH, THE RIGHTS OF NATURE: A HISTORY OF ENVIRONMENTAL ETHICS (1989) (environmental rights logical progression of the widening circle of rights since the American and French revolutions and thus extension of rights to non-sentient beings will realize true democracy) with JOHN YOUNG, SUSTAINING THE EARTH: THE STORY OF THE ENVIRONMENT MOVEMENT—ITS PAST EFFORTS AND FUTURE CHALLENGES (1990) (concern over rise of ecofascism).

the driving force behind sustainable development is the effort to curtail agricultural policies and practices—from state subsidies, to the use of chemical fertilizers and pesticides—that degrade soil resources.¹¹⁵ The current focus is on the modification of local practices, but for sustainable development to work there must be massive transfers of wealth, technology, and information¹¹⁶ as well as subsidies to insure that traditional extractive and exploitation activities are replaced with viable alternatives.

2. Sustainable Development's Relationship to Property, Sensitivity and Equity

Sustainability requires inducing groups whom history has not treated well to participate in environmental protection, even though past mistreatment makes it difficult for them to identify with this objective. Providing the necessary inducement includes respecting property entitlements. This argument is counter-intuitive to traditional conservation practice which uses the police power to limit the use of property deemed detrimental to state or community values. Property was originally the basis for citizenship or full participation in the governance of the state.¹¹⁷ The great revolutions of Europe and America replaced this notion with the more egalitarian principle that full participation would be achieved simply by reaching the age of majority. Property rights grew to be a less important source of wealth and social well-being, and more to be just one weapon in the large arsenal of individual protections against arbitrary state behavior.¹¹⁸

The decreased importance of property works tolerably well for society as a whole, but it does not work well for land based ethnic minorities. Entitlements remain the basis of what minimal political power these minorities exercise, and thus protection, and *creation*, of these rights is an essential component of justice.¹¹⁹

115. OUR COMMON FUTURE, *supra* note 110, at 122-25. For a comparison between sustainable development and more traditional agricultural policies for developing countries, compare Charles E. Hess, *The U.S. Department of Agriculture Commitment to Sustainable Agriculture*, in AGRICULTURE: TOWARD 2000 at 57-58 (Food and Agricultural Organizations of the United Nations ed., 1981) with NATIONAL RESEARCH COUNCIL-NATIONAL ACADEMY OF SCIENCES, SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION IN THE FIELD: A PROCEEDING (1991).

116. Lipschutz, *supra* note 111, at 46.

117. Kenneth R. Minogue, *The Concept of Property and Its Contemporary Significance*, in PROPERTY: NOMOS XXII 3, 12-13 (J. Roland Pennock & John W. Chapman eds., 1980).

118. Thomas C. Grey, *The Disintegration of Property*, in *id.*, at 69, 73-79.

119. Professor Carol Rose has, with her usual insight, traced the basis of this idea and contrasted it with modern utilitarian theories of property. Carol Rose, *Property As Wealth, Property As Propriety*, in COMPENSATORY JUSTICE: NOMOS XXXIII 223 (John W. Chapman ed., 1991). But compare JENNIFER NEDELSKY, PRIVATE PROPERTY AND THE LIMITS OF AMERICAN CONSTITUTIONALISM: THE MADISONIAN FRAMEWORK AND ITS LEGACY 246 (1990) ("efforts to use property as a vehicle for

There is also a powerful instrumental justification for recognizing property claims. Many developing countries are establishing national parks based on the United States model to preserve the world's biodiversity.¹²⁰ Game poaching, mining, agriculture, and timber harvesting threaten the integrity of these parks and rain forests generally. Countries therefore must devote considerable efforts to policing new reserves, resettling native villages and finding alternative means of employment for local populations. In the calculation of benefit-cost ratios for park protection, these impacts are counted as opportunity costs.¹²¹ However, there are also a number of efforts underway to create property rights to provide incentives to accommodate equity demands with the maintenance of biodiversity.¹²²

Such integrated conservation and development projects have been undertaken in Indonesia. On North Sulawesi, one of the islands targeted for population resettlement from the more densely populated islands, the Dumonga-Bone National Park was created to protect a canopy rain forest and to support a downstream irrigation project.¹²³ However, the failure to protect property rights may undermine Indonesia's efforts to balance population dispersal with environmental protection. There is a great deal of shifting cultivation agriculture; some of it is sustainable, but other practices such as slash and burn are not:

A major problem is arising from the incorporation of local people within forest lands. In some provinces a higher proportion of land within forest boundaries under shifting cultivation is found outside such boundaries. In such circumstances the failure to recognize explicitly the *adat* (customary law) rights of cultivators within these boundaries and the resulting absence of secure tenure may give rise to an increase in shifting cultivation and thus forest destruction. . . . A more appropriate approach may be to aim at preventing encroachment into the forest by working more closely with local people to understand their needs and the agro-ecological features of their farming systems, by developing contractual (reciprocal) commitment in which local people voluntarily participate and by stabilizing the boundaries of smallholder land, even for

egalitarian reform may be dangerously ineffective: they may backfire by reinforcing the inequality that has been tied to property in our tradition").

120. See, e.g., Robert J. Bushbacher, *Ecological Analysis of National Forest Management in the Humid Tropics*, in RACE TO SAVE THE TROPICS: ECOLOGY & ECONOMICS FOR A SUSTAINABLE FUTURE 59 (Robert Goodland ed., 1990).

121. JOHN A. DIXON & PAUL B. SHERMAN, ECONOMICS OF PROTECTED AREAS: A NEW LOOK AT BENEFITS AND COSTS 119 (1990).

122. Sustainable development contemplates nonexploitive resource activities. Eco-tourism in the parks described above is an obvious candidate. Selective timber and non-timber species harvesting is also compatible with the maintenance of long term biodiversity.

123. DIXON & SHERMAN, *supra* note 121, at 189.

land lying within current forest boundaries.¹²⁴

Proposals to protect rain forests in Costa Rica utilize similar approaches. Rain forests on the Osa Peninsula outside Corcovado National Park are under stress from animal poaching, mining, logging, and agricultural clearing. In addition there are constant destructive uses of the park by local inhabitants who view it as a classic unowned commons. As part of an effort to preserve the forests through sustainable development, a joint Costa Rican-United States effort to protect the Peninsula has proposed the creation of community and family owned rain forests to "create [sic] a system of locally-owned forest preserves integrated into the Osa communities. They will be bound by strict conservation requirements but owned and managed by local organizations."¹²⁵

D. Subsidies—Equitable Mitigation for the Costs of Environmentalism

Subsidies have a bad name with both economists and environmentalists because often they are justified by neither efficiency nor equity. Economists object to subsidies because they distort the efficient allocation of resources. Subsidies are intended to redistribute resources, but in far too many cases the recipients are undeserving. Subsidies have a way of migrating to the wealthy. Environmentalists seek to eliminate subsidies for agricultural production and water use because they are a substantial cause of resource degradation. This applies to all economies,¹²⁶ although the beneficiaries of subsidies and the developing world are unmoved by economic theory.

To developing countries, equity means primarily that they are entitled to wealth transfers—subsidies—from developed countries to compensate for the environmental degradation caused by the north's excess consumption.¹²⁷ The phase out of CFC and halon use in developing countries provides an example of a situation that is difficult to address within the framework of sustainable development without subsidies. Developing countries account for only 12% of the world's con-

124. PEARCE, *supra* note 11, at 102.

125. NEUROTROPICA FOUNDATION, CORCOVADO 2000, BIOLOGICAL CONSERVATION & COMMUNITY DEVELOPMENT ON THE OSA PENINSULA, COSTA RICA 2 (1989).

126. Speaking of agriculture in developing countries, Jeremy J. Warford writes that "[a]lthough government intervention may be required because of externalities or adverse effects on income distribution, in general freeing up agricultural market prices to approximate international levels, tends to be consistent with environmental objectives as well as with traditional, relatively narrowly defined economic goals." Warford, *supra* note 14.

127. Professor Cheng Zheng-Kang of the Beijing University has articulated this conception of equity in Cheng Zheng-Kang, *Equity, Special Considerations, and the Third World*, 1 COLO. J. INT'L ENVTL. L. & POL'Y 57 (1990).

sumption of CFCs and halons but consumption of these chemicals is rising in large countries such as Brazil, China, and India.¹²⁸ The politics of ozone rollback make it impossible to tell developing countries to adopt sustainable development policies that include no CFC or halon use. Defining sustainable development as the non-expansion of CFC use would be unfair since developing countries would be forced to use more costly substitutes. Further, these countries would have refused to sign the Montreal Protocol.¹²⁹ To prevent the decrease in CFC and halon use achieved in North America from being undermined, the Protocol gives countries with a 1989 per capita consumption of less than 0.3 kilograms a ten year grace period before they must meet the target reduction levels.¹³⁰

Since the Protocol, Europe, North America, and Japan have moved to progressively faster phase-out timetables, but this places more pressure on developing countries because accelerating phase-out has the potential to raise the price of existing chemicals which are more environmentally friendly because there will be an increased demand. In addition, accelerating phase out will force faster adoption of more expensive substitutes. Fair ozone protection requires North-South resource and technology transfers. Article 10 of the Montreal Protocol contemplated North-South redistribution and the 1990 London conference implemented the article, creating a multinational development fund, administered by the signatories, the World Bank, and the United Nations Environmental Programme.

The deeper lesson of ozone protection is that subsidies must be tied explicitly to the achievement of environmental protection goals rather than distributed in the name of broader principles of international equity. International environmental law is slowly moving in this direction. To deal with the magnitude of global environmental problems, international environmental protection requires creating lawmaking procedures and regulatory institutions which intrude on national sovereignty.¹³¹ The logical extension of the theories that converge in the concept of sustainable development is to replace the classic theory of absolute national sovereignty with one of stewardship

128. RICHARD E. BENEDICK, OZONE DIPLOMACY: NEW DIRECTIONS IN SAFEGUARDING THE PLANET 148-52 (1991).

129. Ved P. Nanda, *International Environmental Protection and Developing Countries' Interests: The Role of International Law*, 26 TEX. INT'L L.J. 497, 517 (1991).

130. Montreal Protocol on Substances That Deplete the Ozone Layer, Article 5, Sept. 16, 1987, reprinted in 52 Fed. Reg. 47,515 (1987), and 26 I.L.M. 1541 (1987).

131. Sir Geoffrey Palmer, the former Prime Minister of New Zealand, has called for the creation of a new United Nations regulatory agency and the relaxation of the unanimous consent rule in international lawmaking. Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AM. J. INT'L L. 259 (1992).

sovereignty.¹³² This concept would serve as a standard by which both the external and internal actions of a country, which produce global spillovers, could be measured. Subsidies would be granted and measured by this standard.

V. CONCLUSION

We who have advocated the legitimacy of environmental values need to recognize that legitimate counter-values have been ignored and sometimes jeopardized in the effort to promote a healthy environment. The answer to recognizing equity concerns is not to subordinate environmental values. Environmental protection is a transcendent value. The challenge for environmentalists and others is to devise more creative and effective methods of accommodation. There are no simple answers since, as with all other resource allocations, environmental protection comes at a price. The four criteria proposed in this article, respect for legitimate property entitlements, cultural sensitivity, sustainable development, and subsidy, are a tentative effort to focus environment-equity debates on accommodation.

132. See A. Dan Tarlock, *Stewardship Sovereignty: The Next Step in Former Prime Minister Palmer's Logic*, 42 WASH. U. J. URB. & CONTEMP. L. 21 (1992). The article is a comment on Sir Geoffrey Palmer, *An International Regime for Environmental Protection*, 42 WASH. U. J. URB. & CONTEMP. L. 5 (1992).