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Equity as the Basis of Implementing Sustainability: An Exploratory Essay

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EQUITY AS THE BASIS OF IMPLEMENTING SUSTAINABILITY: AN EXPLORATORY ESSAY

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As concepts of sustainability are implemented in environmental planning and land use practices, new questions about fairness are emerging.[1]

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1. *See* Harvey M. Jacobs, *Social Equity in Agricultural Land Protection*, 17 LANDSCAPE AND URBAN PLANNING 21 (1989) (discussing a framework to evaluate equity implica-

I. SUSTAINABILITY

Sustainability is often defined in the abstract as meeting the needs of the present without compromising the ability of future generations to meet their needs.[2]

As people struggle to define their various alternative visions to the catastrophic future envisioned by environmental degradation, from different perspectives and fields of expertise, certain core values and methods emerge from the literature of sustainability. These values and methods help to fashion an identity for this movement which distinguishes it from other more established philosophies.[3] Most importantly, it figures an explicit expression of concern and obligation to future generations of humans and nonhuman species with respect to the provision of adequate resources to sustain them. Other ideologies express obligation to freedom or community, but do not explicitly include as a priority non-beings yet to be. Moreover, this obligation recognizes the centrality of more equitable distributions of resources and burdens among the existing global population to the goal of a sustainable future for all. Sustainability and equity together embody both a prospective and retrospective ideology; prospective in its commitment to future generations and retrospective in its recognition of the need to address present day inequities that are the result of past wrongdoing and harm.[4]

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tions of four types of agricultural land protection policy—differential tax assessment, large lot zoning, purchase of development rights, and public interest land trusts).

2. WORLD COMM'N ON ENV'T & DEV., OUR COMMON FUTURE (1987).

3. *See generally* ROBIN PAUL MALLOY, LAW AND ECONOMICS, A COMPARATIVE APPROACH TO THEORY AND PRACTICE (1990) (comparing the core organizing concepts of a variety of philosophical approaches including conservative, liberal, left communitarian and neo-marxist, libertarian, and classical liberal doctrine).

4. *See* Philip Selznick, *The Idea of a Communitarian Morality*, 75 CAL. L. REV. 445, 453 (1987).

A. *Planning for Sustainability*

From these two core values, several important corollaries are repeatedly emphasized. First, a shift in values from the monetized, consumption of goods and acts associated with industrialized and post-industrialized nations towards non-monetized activities and conditions. In the already industrial and post-industrial world this shift in values talks of a reattachment to the earth and the sense of well being that attachment affords as compared to our attachments to the monetized economy. In the developing world, this may mean rejection of the false-consciousness of monetized consumption patterns. Secondly, a shift in leadership for the sustainability revolution may be emerging by the increased role women, people of color, and indigenous people now play in the ecological, environmental justice movements. Thirdly, sustainability literature from the sciences to the arts calls for more inclusive dialogue about the resources of the community and how they are distributed. This dialogue must include all voices, allow for conflict, emphasize what inclusiveness gains, and not allow race, gender, privilege and other conflicts to go unaddressed. This commitment to dialogue beyond stereotypes and fear will mean conflict, and accordingly, the skills of conflict mediation are also highly valued in facilitating such discussion. In addition, great value is placed upon local, small scale, interpersonal dialogue as a means of trust building, consensus building, and self-efficacy as opposed to the often corrosive effects of mass media on issues of environmental vulnerability.[5] Finally, what emerges is a commitment to proceed into the future on the basis of a persuasion model rather than on a command/coercive model of intervention. In part, the enforcement of command/coercion structures is an impossibly high cost, eliminated in solutions which are self enforcing because they appeal to the individual who has shaped them. This persuasion model relies on a sense of belonging to a community of shared concern.[6] It also will require a rhetorical basis. And in the

5. *See* Paul Slovic, *Perceived Risk, Trust and Democracy*, 13 RISK ANALYSIS 675 (1993). *See also* Cynthia-Lou Coleman, *The Influence of Mass Media and Interpersonal Communication on Societal and Personal Risk Judgments*, 20 COMMUNICATION RESEARCH 611 (1993).

6. In this regard, sustainability literature relies heavily on the debate about rights and

global community, coercive/command structures are inefficient and unreliable to the extent they are present.

In order to plan for sustainability, we must learn to live within the limits of our remaining natural resources. This raises all sorts of political, social, and economic questions about the distribution of environmental protection.[7] For sustainable community development to be addressed, these questions must be raised. In order to convince different citizenry of the necessity of sustainability, these questions must also be answered. This is where questions of equity, justice, and fairness arise.[8] Sustainability and equity require that we deal with nature as an undivided whole, with no part being unsustainable. Sustainability and social policy also requires that we deal with the human population as an undivided whole. We simply *cannot* move people around the planet to either perpetuate past practices of earth exploitation or to implement sustainable planning. Everyone must work with the people inhabiting sensitive ecological areas, especially areas of regeneration. In the sustainable global community, we are as strong as our weakest link, or our most toxic community. This is the undeniable driving force for the infusion of equity into the sustainable development debate.

B. Obstacles to Sustainability

Several obstacles to sustainability present themselves. From this discussion of the values and methods of sustainability, barriers to sustainability are also apparent. Will the motivation to change cause actual change at a fast enough rate? Will the heterogenous nature of

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belonging found in the communitarian literature. *See generally* Amitai Etzioni, *The Other Side of the Rights Coin: Having Rights Necessitates Accepting the Responsibilities that Go With Them*, A.B.A. J. Aug. 1992, at 110; Harold Berman, *Individualistic and Communitariam Theories of Justice: An Historical Approach*, 21 U.C. DAVIS L. REV. 549 (1988); Selznick, *supra* note 4, at 445.

7. A. Dan Tarlock, *Environmental Protection: The Potential Misfit Between Equity and Efficiency*, 63 COLO. L. REV. 871 (1992).

8. *See* Robert W. Collin, *Environmental Equity: A Law and Planning Approach to Environmental Racism*, 11 VA. ENVTL. L.J. 495 (1992) [hereinafter Collin, *Environmental Equity*]; Naikang Tsao, *Ameliorating Environmental Racism: A Citizens' Guide to Combatting the Discriminatory Siting of Toxic Waste Dumps*, 67 N.Y.U. L. REV. 366, 375-78 (1992).

our nation and our world be an insurmountable obstacle to the type of dialogue we need to have? Will alternative leadership by women and people of color succeed in the current political structure or will the change in leadership be forced into alternative forums of political expression? Will these problems lead us to coercive/command solutions?

The first obstacle is that traditional welfare economics stress present resource consumption over deferred consumption. When this approach is implemented in public and private policy, it has the effect of promoting pollution in developing nations because the costs of pollution are lower in poor areas, and under welfare economics, the marginal costs (the cost of producing the last increment of the good) of pollution prevention and control surpass the benefits in these developing nations.[9] Another obstacle to this merger is that the "mainline environmental community" has simply not countenanced issues of equity.[10] This is a theme that is well known to the community of environmental community activists.[11] These obstacles must be fully addressed.

II. ENVIRONMENTAL EQUITY

A. *Background*

Environmental equity is a term used by the United States federal government to describe the disproportionate presence of environmental hazards in African American, Latino, and Native American communities.[12] The term also refers to environmental policy and the administration of environmental policy and the lack of inclusion of those most affected by these decisions. Other researchers call these dynamics

9. Tarlock, *supra* note 7, at 872-76.

10. *Id.* at 872.

11. Collin, *Environmental Equity*, *supra* note 8, at 543; Luke W. Cole, *Empowerment as the Key to Environmental Protection: The Need For Environmental Poverty Law*, 19 ECOLOGY L.Q. 619, 636-40 (1992).

12. OFFICE OF POLICY, PLANNING AND EVALUATION, U.S. EPA, ENVIRONMENTAL EQUITY—REDUCING RISK FOR ALL COMMUNITIES—REPORT TO THE ADMINISTRATOR FROM THE EPA ENVIRONMENTAL EQUITY WORKSHOP (Draft Feb. 1992).

"environmental racism" because race has been shown to be the best predictor for a hazardous or toxic waste site—better than income, topography, or hydrology.[13]

The federal government has targeted its resources at the worst pollution sites because this approach is the most efficient and economical method of spending tax dollars to reduce the environmental risk for everyone. However, it has brought environmentalists into communities of color. These communities are already the terminus for all sorts of wastes, and they now face increased developmental pressure because of the scarcity of landfill sites and increasing amounts of waste. It is easier and less expensive to expand a current waste site than to find a new, more acceptable one. Questions about who benefits and who is burdened are always more sharply posed at the grassroots level because that is where they are the most apparent. As our knowledge about the environment increases, and as this knowledge reaches communities through community right-to-know laws and environmental impact statements, the discourse will be more focused. Unfortunately, communities of color have disproportionately borne the burden of nonsustainable industrial development while receiving fewer benefits. Many of these burdens have been in the form of increased exposure to chemicals that we now know cause cancer, birth deformities, and miscarriages.[14] The reluctance of the scientific community to validate these burdens has dovetailed with the profit interests of corporate waste management companies.[15] Consequently, the trend is now towards "officially" classifying many more as toxic.[16] These burdens

13. CONFRONTING ENVIRONMENTAL RACISM: VOICES FROM THE GRASSROOTS (Robert D. Bullard ed., 1993); UNITED CHURCH OF CHRIST COMMISSION FOR RACIAL JUSTICE, TOXIC WASTES AND RACE (1987); Carolyn M. Mitchell, *Environmental Racism: Race as a Primary Factor in the Selection of Hazardous Waste Sites*, 12 NAT'L BLACK L.J. 176 (1993). *But see* Vicki Been, *What's Fairness Got to Do With It? Environmental Justice and the Siting of Locally Undesirable Land Uses*, 78 CORNELL L. REV. 1001 (1993) (questioning whether fairness is the main issue in siting decisions).

14. TOXIC STRUGGLES: THE THEORY AND PRACTICE OF ENVIRONMENTAL JUSTICE (Richard Hofrichter ed., 1993).

15. David L. Wheeler, *When the Poor Face Environmental Risks*, CHRON. HIGHER EDUC., Feb. 23, 1994, at A10.

16. "Claims for the fear of cancer have been increasingly asserted in toxic tort cases as more and more substances have been linked with cancer." Potter v. Firestone Tire &

have always existed, not only in the environment, but also in education, voting, employment, and housing. But now that the burdens of environmental inequity are toxic enough to affect us all, we have begun to make policies on environmental equity.

B. Previous Legal Scholarship

A recent review of the legal literature on environmental racism, environmental equity, and environmental justice[17] suggests that one of the main themes in this literature is sustainability. Sustainability is seen as the motivating force for the merger of equity and efficiency in the formulation of environmental policy.[18]

In his recent article, Dan Tarlock focuses on the relationship between ecosystem integrity.[19] Tarlock states that equity claims, which have previously been disregarded in environmental policy making, should be included in this process.[20] His article is an attempt to construct a legal and policy framework for a mode of environmental decision-making that could accommodate equity and avoid negative effects on ecosystem integrity. He suggests four ways to incorporate equity concerns into environmental policy: (1) increased recognition of legitimate individual and group property claims; (2) increased sensitivity to equity claims in environmental impact analysis; (3) a focus on sustainable development; and (4) the use of subsidies for environmental protection and equity.[21]

Another recent law review article, written by Dean Boyer, focuses more on sustainability.[22] This article essentially challenges current Western thinking about the environment and sustainability. Boyer feels that the singular focus on "rational" aspects of sustainable development

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Rubber Co., 6 Cal. 4th 965, 980 (1993) (allowing compensation for fear of cancer when it is "more likely than not" to occur in plaintiff).

17. Robert W. Collin, *Review of the Legal Literature on Environmental Racism, Environmental Equity, and Environmental Justice*, 8 J. ENVTL. L. & LITIG. (forthcoming 1994).

18. Tarlock, *supra* note 7.

19. *Id.*

20. *Id.* He does not necessarily accept the legitimacy of all claims of inequity.

21. *Id.*

22. Barry D. Boyer, *Institutions for Sustainability*, 1 BUFF. ENVTL. L.J. 63 (1993).

is very limiting. He proposes a broader view of sustainable development by describing what happened when Native Americans (representing a sustainable economy) began to participate in the newly started market economy of the colonial fur trade. Boyer analogizes the development of this market economy to the tragedy of the commons. His main observation is that economic activity is made up of the beliefs, practices, and assumptions of the respective culture. Because of this, he maintains that theories of sustainable development must incorporate theories of social change. Law is important, in the United States context, to a study of social change because legal confrontation can show how dominant values are presented and how competing alternative visions are disregarded.

C. Poverty and Inequity in the Context of Sustainability

It is axiomatic that any policy or program of sustainability must be developed and implemented with strong, if not controlling, concern for the present and near future realities of the world. The reality of the present world is one of chasms of inequity. In raw terms of wealth, there are approximately 157 billionaires and about 2 million millionaires in the world,[23] as compared to about 100 million houseless and homeless individuals.[24] Equity comparisons based on wealth, as measured by income, can diminish the true disparity between rich and poor because they are based on the number of households and generally fail to consider household size. For example, in many countries and regions, the poor often have more children in order to have financial security.[25] However, global disparity is probably much greater than usually reported. Thus, a global approach to sustainability would be in the context of a world that is less equitable than any nation.[26]

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23. Alan B. Durning, *Poverty and the Environment: Reversing the Downward Spiral*, 92 WORLDWATCH INST. 5 (1989).

24. *Id.*

25. *See* Bina Agarwal, *Neither Sustenance Nor Sustainability: Agricultural Strategies, Ecological Degradation and Indian Women in Poverty, in* STRUCTURES OF PATRIARCHY: STATE, COMMUNITY, AND HOUSEHOLD IN MODERNIZING ASIA (Bina Agarwal ed., 1988) (discussing gender inequity).

26. Durning, *supra* note 23, at 11. As noted by Durning:

It is well understood that extreme poverty sparks environmental degradation. As noted by one researcher:

> [P]overty has become an increasingly environmental phenomenon. The poor not only suffer disproportionately from environmental damage caused by the better off, they have become a major cause of ecological decline themselves. Pushed to marginal lands by population growth and inequitable development patterns, they raze plots in the rain forest, plow steep slopes, and overgraze fragile rangeland. Economic deprivation and environmental degradation reinforce one another to form a maelstrom—a downward spiral.[27]

In such areas, wood, water, and subsistence food can quickly become scarce, raising the question of survival for indigenous people.[28] Nations are forced to choose between having citizens now or preservation for the world's future. Who decides? What is the process? These questions, and a host of others, are currently being debated as the world community starts to study sustainability.[29]

D. United States Federal Intervention Concerning Environmental Equity

President Clinton recently issued an executive order to all Federal agencies to ensure that their policies and programs do not inflict environmental harm on the poor and minorites.[30] This order requires all

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> The fifth of humanity living in the richest countries have average incomes 15 times higher than the fifth living in the poorest. Were sufficient data available to group the world's people by their true incomes, rather than the nation's average incomes, the richest fifth might be found to earn 30 or 40 times what the poorest do.

Id.

27. *Id.* at 6.

28. "The poor are often distinct in race, tribe, or religion from dominant wealthy groups." *Id.* at 21. *See infra* notes 36-40 and accompanying text (discussing the role of indigenous people in sustainability).

29. David A. Wirth, *Participation and Litigation Rights of Environmental Associations in Europe: Current Legal Situation and Practical Experience*, 14 MICH. J. INT'L L. 465 (1993); Robert Housman, *The Muted Voice of Women in Sustainable Development*, 4 GEO. INT'L ENVTL. L. REV. 361 (1992).

30. Exec. Order No. 12,898, 59 Fed. Reg. 7629 (1994); *see also* John H. Cushman, Jr., *Clinton to Order Action to Undo Bias in Pollution*, N.Y. TIMES, Feb. 9, 1994, at A1,

Federal agencies to develop a comprehensive plan that corrects and prevents environmental inequities. Additionally, when developing new policies, all federal agencies will have to seek the inclusion of all parts of the nation's population. As reported, the impetus for the executive order relates to the inadequacy of current environmental problem solving approaches involving equity considerations.

Finally, the executive order will require federal agencies to work together on issues of environmental equity and require the analysis of census and pollution data within one year of its collection. It is interesting to note that one of the first executive orders on the environment addresses equity, not sustainability.

While the executive order provides renewed hope, previous legal and political remedies have proven elusive. Much remains to be done to demonstrate exactly how the unequal effects of pollution are felt.[31] In addition to the executive order, Congress has contemplated the enactment of new environmental policies. On May 12, 1993, Representative John Lewis introduced the Environmental Justice Act of 1993.[32] Shortly thereafter, on June 24, 1993, Senators Moseley-Braun, Ben Nighthorse Campbell, and John Chaffee introduced a similar bill.[33] Both bills share four basic characteristics that are designed to reduce environmental inequities. These bills: (1) identify, and rank by county, the amount of toxic chemicals released into the identified counties' environment; (2) use the data to designate the one hundred counties with the highest releases of toxic chemicals as "environmental high impact areas," and do further research on the nature and extent of health impacts from exposure to toxic chemicals; (3) require toxic chemical permit holders in environmental high impact areas to decrease discharges substantially; and (4) provide technical assistance, or grants for technical assistance, in environmental high impact areas.

Although this legislation is a good start, especially in the area of community empowerment, it is lacking in several respects. First, it is

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A13.

31. *Id.* at A13.

32. 139 CONG. REC. E1243-02 (1993).

33. *See* 139 CONG. REC. S8085-03 (1993); S. 1161, 103d Cong., 1st Sess. (1993).

lacking in any enforcement power and language. There are many environmental laws that are simply not enforced, especially pollution laws. As one scholar has noted: "During the past two decades, there has been a massive amount of lawmaking and policy implementation designed to reverse the environmental degradation of the Great Lakes."[34]

The second weakness of the proposed legislation is that it identifies communities by county boundaries and census tracts, and not by community or the impact of the chemicals on the environment. This classification distorts the true impact on people, and on the environment, because actual impact is not measured, evaluated, prevented, or remedied as effectively as it could be if impact was measured based on environmental impact. Such a political distortion can lead to the misrepresentation of risk assessment and management.[35] This would be a very poor way to begin to implement a policy of sustainable development.

In summary, the United States court cases,[36] the federal legislation, and the executive order all indicate that concern for environmental equity pervades all three branches of the United States government.

E. The Case of Indigenous People

The case of indigenous people in issues of implementing sustainability is an interesting one, with far reaching moral questions. On the global scale, many indigenous people inhabit areas that are rich in biodiversity.[37] In the United States, many Native Americans are on

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34. Boyer, *supra* note 22, at 71.

35. Robert W. Collin, *Environmental Equity and the Need for Governmental Intervention: Two Proposals*, 35 ENV'T, Nov. 1993, at 41.

36. R.I.S.E., Inc. v. Kay, 768 F. Supp. 1141 (E.D. Va. 1991); El Pueblo para el Aire y Agua Limpio v. County of Kings, No. 366048, slip op. (Cal. Super. Ct. Dec. 30, 1991); East-Bibb Twiggs Neighborhood Ass'n v. Macon Bibb Planning & Zoning Comm'n, 896 F.2d 1264 (11th Cir. 1989); Wisconsin v. Reilly, Case No. 87-C-0395 (1989); Bean v. Southwestern Waste Management Corp., 482 F. Supp. 673 (S.D. Tex. 1979).

37. *See* Antony Anghie, *"The Heart of My Home": Colonialism, Environmental Damage, and the Nauru Case*, 34 HARV. INT'L L.J. 445 (1993) (discussing the effect of environmental degradation on native peoples under colonial rule); Xavier Carlos Vasquez, *The North American Free Trade Agreement and Environmental Racism*, 34 HARV. INT'L L.J. 357 (1993) (discussing how NAFTA exploits the land and its native people); Judith Kimerling,

reservations or in Indian Country with little control over land on the reservation owned by non-Indians.[38] The situation has been made even more confusing because some federal agencies are giving Indian governments more environmental and land use control,[39] while the judiciary is taking it away. Not only are indigenous people important for the land they reside on and the treaties and small amount of true sovereignty that they may have, but also for their vision of sustainability.

While it is very difficult to generalize about all indigenous peoples, tribes, or clans, it is possible to make some observations about the perspectives on sustainability from the people who were there first and who lived off the land. As noted by one researcher:

> Sustainable use of local resources is simple self-preservation for people whose way of life is tied to the fertility and natural abundance of the land. Any community that knows its children and grandchildren will live exactly where it does is more apt to take a long view than communities without attachments to local places.[40]

Disregarding Environmental Law: Petroleum Development in Protected Natural Areas and Indigenous Homelands in the Ecuadorian Amazon, 14 HASTINGS INT'L & COMP. L. REV. 849 (1991) (discussing Ecuador and its foreign exploration and development).

38. *See* Brendale v. Yakima Indian Nation, 492 U.S. 408, *reh'g denied*, 492 U.S. 937 (1989) (Yakima Indian Nation held to have zoning authority as to lands owned by nonmembers of the tribe in Yakima reservation's "closed area," but not as to such lands in the reservations' "open area."); Montana v. United States, 450 U.S. 544, *reh'g denied*, 452 U.S. 911 (1981) (holding that the Crow Indian tribe had no tribal jurisdiction to regulate non-Indian hunting and fishing on non-Indian lands in Indian Country) (Indian Country is defined at 18 U.S.C. § 1151 (1981)). *But see* Kevin Gover & Jana Walker, *Escaping Environmental Paternalism: One Tribe's Approach to Developing a Commercial Waste Disposal Project in Indian Country*, 63 U. COLO. L. REV. 933 (1992) (discussing how environmentalists' objections to a commercial landfill were paternalistic and racist).

39. *See, e.g.*, Phase I and Phase II, Components A and B, Interim Authorization of the State Hazardous Waste Management Program, 48 Fed. Reg. 34,954, 34,957 (1983) (Environmental Protection Agency concluded that a State has no authority under RCRA relative to Indian lands jurisdiction). *See also* Final Authorization of State Hazardous Waste Management Program, 51 Fed. Reg. 3779, 3780; 51 Fed. Reg. 3782, 3782-83; 51 Fed. Reg. 3784; 51 Fed. Reg. 36,804, 36,805 (1986) (expressing the same conclusions as to Oregon, Washington, Wisconsin, and Michigan, respectively).

40. Alan Thein Durning, *Guardians of the Land: Indigenous Peoples and the Health of the Earth*, 112 WORLDWATCH INST. 28 (1992).

The list of stewardship techniques of indigenous people is worth studying.[41] We have to be open to whole new ways to conceptualize our relationship to land, air, and water. The fact that many indigenous people fail to accept property ownership could hamper the development of what the Western world calls "stewardship." For example, if one is part of the land, then what is the role of a steward? The question becomes complicated by the disempowerment and poverty of many indigenous people. The current context of global inequity may suppress local successes in sustainability, which can be vulnerable. How can we make their voices heard? How can the discourse be broadened to include these viewpoints?

F. Risk Assessment and Perception

One of the first bridges to be built in bringing concepts of environmental equity into sustainable community building is that of an individually and collectively shared perception of risk. In other words, a fundamental strategy for sustainable planning at levels of implementation must be accepted by all citizens. If we are equal in the distribution of environmental benefits and burdens, then no one group should involuntarily assume a greater degree of environmental risk. This goal requires that all citizens at least know about the risk, which in turn, requires scientists to thoroughly and accurately assess and convey knowledge about environmental risks to society as a whole. It is important for us to know what risks we face and what risks we ask others to assume. Presently, risk assessment is a rapidly developing discipline.[42] The Environmental Protection Agency (EPA) has recognized this trend and has been steadily moving in this direction.[43] The

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41. *Id.* at 31.

42. *See* SUSAN CUTTER, LIVING WITH RISK: THE GEOGRAPHY OF TECHNOLOGICAL HAZARDS (1993); SOCIAL THEORIES OF RISK (Sheldon Krimsky & Domenic Goldin eds., 1992).

43. The EPA report on environmental equity was proceeded by another, related report. In 1990, the EPA Science Advisory Board published SCIENCE ADVISORY BOARD, U.S. EPA, REDUCING RISK: SETTING PRIORITIES AND STRATEGIES FOR ENVIRONMENTAL PROTECTION (1990). This report recommended that the EPA "target its environmental protection efforts on the basis of opportunities for the greatest risk reduction." *Id.* at 6. EPA administrator

risk posed to an individual or a community may emanate from the workplace, home, or school. The EPA is currently developing and testing models of multiple risk assessment. This is a significant development for the EPA itself. However, because new technologies are continuously developing and the risks posed by developing production are ever increasing, technological advancements must be assessed prior to implementation.

There are, however, a number of barriers to sharing perceptions of risks that must be overcome in order to sucessfully implement concepts of sustainability. As a society, the United States public is divided into different groups by race, class, education, age, and gender. Different groups often have different perceptions regarding the degree of risk, the amount of risk that is dangerous, and the amount of risk that is acceptable to them, as well as to others.[44] We must overcome our differences and pool our knowledge and perceptions of risk, even if the fundamental value structures of the different groups are different. In this way, we can alleviate some of the historical biases of environmental decision-making and begin to make sustainable decisions. By working together, we can increase our capacity to avoid and settle environmental disputes because we can be aware of them before positions become entrenched and adversarial. Our judicial and administrative environmental decision-making forums are anthropocentric, or human based, at best. It is not uncommon for an environmental dispute to leave the environment ravaged.[45] Even if the environment is not

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William K. Reilly then formed the EPA Environmental Equity Workgroup and charged them to access evidence that racial minority and low income populations bear a higher risk burden than the general population. In 1992, this group issued a draft of the report, ENVIRONMENTAL EQUITY: REDUCING RISK FOR ALL COMMUNITIES. The final publication of this report contains a second volume which lists scientific studies on waste, toxicity, and race. *See supra* note 12.

44. Daniel Goleman, *Hidden Rules Often Distort Perceptions of Risk*, N.Y. TIMES, Feb. 1, 1994, at B5 (explaining the research of Paul Slovic, a risk researcher at the University of Oregon, which indicates that white males have a lower perception of risk than white females and non-white males and females).

45. Environmental impact statements require that the relevant agency find significant impact in its program or development project in order to proceed with the environmental impact statement. Environmental impact statements are procedural in nature, not substantive. This is also true for state environmental impact statements. *See* Kenneth Pearlman, *State Environmental Policy Acts: Local Decision Making and Land Use Planning*, *in* A

irretrievably ravaged, it may not be possible to make decisions about sustainability in the bioregion while a particular piece of land is tied up in the rigors of litigation. If there is any basis for knowing and pooling risk, then we can resolve land disputes with concern for the sustainability of the environment as the decisional baseline. In order to do this, it is essential that planners measure impact by the actual presence of chemicals and possible toxins and that they refuse to allow political boundaries to artificially limit this measurement.

III. CONCLUSION

A. Summary

There are many difficult challenges for those who wish to implement concepts of sustainability. We cannot afford to ignore the political and economic realities that often drive decisions here and across the globe. The divisions between some groups in our society are very strong, and often irreconcilable. Consensus may not be possible, but a shared discourse may inform the decision and create a level of accountability that can facilitate future discourse with nonconsensual groups. In this context, we can expect more, not less, conflict. We need to expect conflict and be prepared to handle it. We also need to train individuals to handle conflict as part of discourse. It is the role of higher education to create an informed citizenry who can engage in the unfolding discourse of sustainability. We need to train scientists who communicate with people in understandable terms and journalists who can report science in knowledgeable terms and to bridge the communication and cultural gaps that exist in the larger community. To the extent cultural diversity is a fact in higher education, it can serve as an ameliorating force in the cultural differences that prevent shared perception of risk.

PLANNER'S GUIDE TO LAND USE LAW 258-76 (Stuart Meck & Edith M. Netter eds., 1983). Injunctions under the National Environmental Policy Act have been time-consuming and ineffective because traditional methods of balancing the equities fail to value the future, but only look to irreparable damage to the interests of the plaintiff. *See* Leslye A. Herrmann, *Injunctions for NEPA Violations: Balancing the Equities*, 59 U. CHIC. L. REV. 1263 (1992).

B. *Some Hopeful Observations*

No one discipline, and certainly no one group, can single-handedly implement concepts of sustainable community development. The reality is interdisciplinary and multicultural. The merger of equity and environmental decision-making is both a foundation of the sustainable communities concept and a representation of the maturation of the United States environmental movement towards greater inclusion. The main challenge to educators and environmental decision-makers is to facilitate this unfolding process so that we may live in harmony with each other and with nature.

Perhaps the most perplexing challenge of the sustainability revolution[46] is the question of motivation to change values, lifestyles, and other fundamental features of our daily lives and institutions. The motivation for change may be more apparent in deprived or threatening conditions such as war or starvation. But in privileged countries and among privileged elites, what will be the motivating force to change towards sustainability? Of course one motivation, even among the privileged powerful minority, may be the perception of imminent, life threatening harm from global environmental degradation instead of war. This perception triggers the self defense mechanism that is a powerful motivator for immediate action to protect and defend the self from perceived harm. This perception of imminent harm is at the heart of the apocalyptical literature of the western ecological movement such as Rachel Carson's *Silent Spring*.[47] This perception also appears to be in the popular psyche as revealed in the rapidly developing field of risk perception, risk analysis, and risk judgments.[48]

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46. DONELLA H. MEADOWS ET AL., BEYOND THE LIMITS 222 (1992).

47. RACHEL CARSON, SILENT SPRING (1962); *see also* Garret Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968). Both of these works captured the public imagination with vivid scientific accounts of human progress towards annihilation of self and nature, contrary to the prevailing myth of scientific progress towards an ever-increasing quality of life.

48. *See generally* Paul Slovic, *Perception of Risk*, 236 SCIENCE 280 (1987). Paul Slovic, a risk researcher at the University of Oregon, has research that indicates that white males have a lower perception of risk than white females and non-white males and females. *See also* Goleman, *supra* note 44.

Rhetoric in its classical sense of normative statements uttered to influence action[49] should not be overlooked as a motivation for political and personal action. Persuasive rhetoric offers an appeal to moral and natural authority as the basis for correct choices and right actions. There are many examples of an emerging normative rhetoric of sustainability from many sources including: the spirituality of the deep ecology movement with its foundations in the work of Aldo Leopold;[50] a closer attention to the spiritualities of indigenous peoples tracing their humanity to a relationship with Nature and the Earth; the philosophy of Robin Attfield;[51] and the concepts of Christian stewardship in organized Christian faiths. Another rhetorical source may be patriotism, once sustainability is articulated as a question of acting in the national interests.[52]

Aesthetic vision may also be a powerful, internalized motivation towards certain actions; aesthetic vision driving individual and political actions. For example, a recent study suggests that contact with a full, diverse natural world is an essential part of our physicality as humans.[53] To this end, it is important to watch the artistic visioning of the times and how artists may reach into the psyche of an otherwise secular vision to stir the popular imagination toward the principles of sustainability.

Finally, the promise of improvements in the quality of life may be a powerful motivation for change. Something of this is implicitly promised in the language and literature of sustainable development, although it seems incompatible with the language of equity, especially in

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49. HAROLD J. BERMAN & WILLIAM R. GREINER, THE NATURE AND FUNCTIONS OF LAW 482-84 (4th ed. 1980).

50. ALDO LEOPOLD, A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE (1949).

51. ROBIN ATTFIELD, THE ETHICS OF ENVIRONMENTAL CONCERN 88-114, 140-65 (1983).

52. For example, consider the success of popular energy efficiency measures undertaken during the Arab Oil Import Embargo of the Carter presidency.

53. *See* EDWARD O. WILSON, BIOPHILIA (1984); EDWARD O. WILSON & STEVEN R. KELLERT, THE BIOPHILIA HYPOTHESIS (1993); *see also* Nash, *The Case for Biotic Rights*, 18 YALE J. OF INT'L. L. 235 (1993).

the international context. Here, it serves as a contradiction that triggers resistance among the privileged.

All of these motivational forces are at work; all have the capacity to affect individuals, nations, and institutions alone or in combination. As motivational tools, they are all value neutral (with the possible exception of aesthetic vision) and could be used to motivate for values incompatible with sustainability. However, the values and methods associated with sustainability have already made significant use of each of these tools.