Self-Determination for Indigenous Peoples at the Dawn of the Solar Age

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The global environmental crisis has more than adequately demonstrated that business as usual will not and cannot ensure global survival. What is needed is a fundamental shift in consciousness, and this means that the views of indigenous peoples—our laws and rules and relationships to the natural world—have to be brought back into the picture.

Ruby Dunstan, Lytton Indian Band

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INTRODUCTION

As the industrialized societies of the world become increasingly proficient at reaching further into the remote places of Mother Earth to extract resources, indigenous peoples face ominous threats to their survival. Ancient ways of life that have sustained countless generations lose their viability when the web of life is torn asunder by the technologies of industrialized peoples, whether it is multinational corporations or impoverished refugees from the urban slums of Third World countries that wield these technologies. Kinship networks and religious belief systems that have helped countless generations of individuals develop positive self-images tend to break down when these ancient cultures are confronted by the power and arrogance of industrialized peoples. Those indigenous individuals who accept the challenges of carrying on the traditions must deal not only with environmentally destructive technologies and externally imposed legal regimes, but also with self-destructive behavior on the part of other members of their own societies.

There is nothing new, of course, about the decimation of indigenous peoples and the destruction of their ways of life. There is something new, however, in the responses of many indigenous peoples and of those in the industrialized societies who are concerned about their plight. In recent years, an international movement has emerged to recognize the rights of indigenous peoples under international law—to recognize that indigenous peoples are indeed members of the human family, and that, as such, they are entitled to human rights and human dignity. For example, the United Nations has established the Working Group on Indigenous Populations,

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3. The formation of the Working Group on Indigenous Populations was proposed by the Sub-Commission on Prevention of Discrimination and Protection of Minorities in its resolution 2 (XXXIV) of September 8, 1981, was endorsed by the Commission on Human Rights in its resolution 1982/19 of March 10, 1982, and was authorized by the Economic and Social Council in its resolution 1982/34 of May 7, 1982. Discrimination Against Indigenous Peoples: Report of the Working Group on Indigenous Populations
which, with the active involvement of indigenous peoples' representatives and advocates, has been fashioning a declaration of the rights of indigenous peoples for adoption by the United Nations General Assembly. There are many facets to the development of standards to protect the human rights of indigenous peoples, but, from the perspectives of indigenous peoples, much of it comes down to different ways of saying the same basic principle—indigenous peoples want the right to make their own decisions about how much of the industrialized world they will allow into their societies and about what kinds of "development" are allowed to take place in the lands and waters that comprise the traditional homelands upon which their ancient ways of life depend.

The forces that threaten the survival of indigenous peoples, however, are not patiently awaiting the adoption of a declaration of the rights of indigenous peoples. To believe that such forces will voluntarily comply with the United Nations declaration when it is adopted would be a naive exercise in wishful thinking. It is true that the idea of self-determination for indigenous peoples, or at least the idea of autonomy within legally recognized territories, has gained substantial currency over the last decade or so. Many governmental officials and political figures around the world, however, continue to regard indigenous peoples as members of "primitive" cultures that deserve at most some measure of paternalistic protection while they either become assimilated or disappear forever. Paternalistic protection characterizes one end of the spectrum along which the beliefs of such politicians are manifested; the genocidal use of military force marks the other end.

This Article challenges readers to help make the principle of self-determination for indigenous peoples a reality. Part I presents an overview of the emerging international law of the rights of indigenous peoples and discusses the threat of cultural genocide. Part II presents a comparative law example of the status of indigenous peoples under the domestic law of the United States, where American Indian tribes retain a


4. Working Group 1991 Report, supra note 3, at 29-36. For further discussion on the draft declaration, see infra notes 69-70, 73-80, 88 and accompanying text.

5. This Article uses the terms "Indian," "Indian tribe," and "Indian country" as these terms are used in U.S. federal law. See generally FELIX S. COHEN, HANDBOOK OF FEDERAL INDIAN LAW 3-46 (1982). For example, in the Indian Self-Determination and Education Assistance Act of 1975, "Indian" is defined as "a person who is a member of an Indian tribe," and "Indian tribe" is defined as
substantial measure of their original sovereignty. Although the status of Indian tribes in the United States is less than ideal, a large number do continue to exist as politically distinct communities, and each tribe is intent on being treated as a permanent feature of our federal system. This continued and distinct existence teaches many lessons that are applicable in the international arena. In particular, Part II notes the recent trend in United States environmental law of authorizing Indian tribal governments to be treated as states and offers some comments on one federal grant program which is designed for the express purpose of helping Indian tribes to preserve their cultural heritage.

The experience in the United States also provides numerous examples of tribes that have suffered severe cultural and social disruption because of the decimation of wildlife populations and other profound changes in the natural environment caused by the dominant society. Part III suggests that the international recognition of rights will be a hollow success for indigenous peoples unless the industrialized societies also achieve a transition from environmentally destructive to environmentally sustainable development. In particular, Part III focuses on energy consumption both in the industrialized societies and in the less developed countries. This Article focuses on energy for one significant reason. In many parts of today's world, the kinds of environmental damage that threaten the survival of indigenous peoples are driven by the ways in which the economic engines of the industrialized and industrializing countries consume energy. Over the past two decades, we have learned new ways to provide the kinds of services and benefits

any Indian tribe, band, nation, or other organized group or community, including any Alaska native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act... which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

25 U.S.C. § 450b(d)(e) (1988). Some federal definitions of “Indian” include other categories of persons in addition to those that are members of federally recognized tribes. One example is the definition in the Indian Reorganization Act of 1934, which includes under the definition of Indian all persons of one-half or more Indian blood. 25 U.S.C. § 479 (1988). The term “Indian country” includes all lands within the exterior boundaries of any Indian reservation as well as “dependent Indian communities” and Indian-allotted lands held in trust that are not within the boundaries of a reservation. 18 U.S.C. § 1151 (1988).

Some of the editors of the Journal suggested using the term “Native American” rather than “Indian.” Neither term is ideal, but, as a member of a federally recognized Indian tribe, the Cherokee Nation, I have a personal preference for the terms “American Indian” and “Indian” rather than “Native American,” and my experience has led me to conclude that, in Indian country, the term “Indian” is more widely used.
that in the past we provided by consuming nonrenewable energy resources. These new ways render the environmental destruction and pollution of the old ways both unnecessary and unjustifiable. Part III presents an overview of the alternative energy development scenario, sometimes called the "soft energy path," which is based on energy efficiency and environmentally sustainable solar and other renewable energy technologies. Taking soft energy paths will not in itself solve the global environmental crisis, but it is an essential part of the solution.

Part IV presents some observations on critical needs that must be addressed if the vision of a soft-energy future is to become a reality; to meet these needs will require action at all levels of government, as well as action by international and nongovernmental organizations. As will be explained in the Article, American Indian governments in the United States are uniquely situated to help bring about the transition to a soft-energy future. Part IV suggests a few of the ways in which Indian tribes could use their governmental powers to help realize such a future.

The global environmental crisis is real—unless we make some fundamental changes in the ways that our global economy extracts resources from the earth and gives off pollution and wastes, the natural systems that support human societies will collapse. Even if we do succeed in expeditiously making the fundamental changes that are necessary, there still is no guarantee that we can avoid the widespread collapse of ecosystems. In his bestselling book on the global environmental crisis, Senator Albert Gore includes some indigenous peoples

6. See generally LESTER R. BROWN ET AL., SAVING THE PLANET: HOW TO SHAPE AN ENVIRONMENTALLY SUSTAINABLE GLOBAL ECONOMY (1991); DONELLA H. MEADOWS ET AL., BEYOND THE LIMITS: CONFRONTING GLOBAL COLLAPSE, ENVISIONING A SUSTAINABLE FUTURE (1992). Beyond the Limits is the sequel to The Limits to Growth, an international best-seller by the same authors, which was published in 1972. In both books, the authors used a computer model to analyze global data and make long-term predictions. In Beyond the Limits, the authors conclude that "[h]uman society has overshot its limits," and that "if a correction is not made, a collapse of some sort is not only possible but certain, and that it could occur within the lifetimes of many who are alive today." Id. at 2 (emphasis added). Saving the Planet is the first book in the Environmental Alert Series published by the Worldwatch Institute, an environmental think tank based in Washington, D.C. The authors of Saving the Planet have outlined a plan to reverse the global trends of environmental degradation and deepening poverty for many of the world's people by bringing human economic activities into harmony with basic ecological principles. They also caution that "[a]t least two preconditions are undeniable: If population growth is not slowed and climate stabilized, there may not be an ecosystem on earth we can save." BROWN ET AL., supra, at 31 (emphasis added). This Article is concerned with the second of these two preconditions.

7. MEADOWS ET AL., supra note 6, at 236.
among examples of "resistance fighters" who are on "the front lines of the war against nature now raging throughout the world," Senator Gore argues that the global environmental crisis is "rooted in the dysfunctional pattern of our civilization's relationship to the natural world," in which people have lost their sense of connection to the natural world. He believes that healing the damage we have done to the earth and changing our dysfunctional civilization into one that is based on stewardship rather than exploitation must be, in essence, spiritual endeavors. Indigenous peoples, where their cultures remain substantially intact, have not lost their spiritual connections to the natural world. Rather, they maintain connections to the earth which are fundamentally sacred in nature, and they know a great deal about stewardship that could be of benefit to the rest of humankind.

Over the next several decades, sustainable energy technologies will figure prominently in a worldwide social movement—the "sustainability revolution"—that will change human life on earth as profoundly as did the agricultural revolution of eight thousand years ago or the industrial revolution of two hundred years ago. The natural world will be changed profoundly in any event, through global warming, the loss of biodiversity, the thinning of the ozone layer, and other global trends that are already underway. If humankind is to accomplish the sustainability revolution, we need to be able to envision a future world in which we would like to live and which we would wish for future generations. Our collective vision of a sustainable future also must include room for the remaining indigenous peoples of the world to carry on their ancient cultures and to decide for themselves how much of the "modern" world to allow into their cultures.

In addition to challenging readers to help make the principle of self-determination a reality for indigenous peoples, this

8. AL GORE, EARTH IN THE BALANCE: ECOLOGY AND THE HUMAN SPIRIT 282, 285 (1992) (recounting the efforts of the Penan and other indigenous peoples of Sarawak, Malaysia to stop the destruction of their tropical rain forest homeland).
9. Id. at 237.
12. See MEADOWS ET AL., supra note 6, at 218-24.
13. Id. at 224-26.
Article challenges indigenous leaders, especially those in the United States, to help formulate our collective vision of a sustainable future and to provide leadership in making that vision a reality. The United Nations has designated 1993 the International Year for the World's Indigenous Peoples, and this event will provide tribal leaders with opportunities to have their voices heard. Tribal leaders in the United States should take full advantage of these opportunities and step to the forefront of the movement to hasten the dawning of the solar age.

I. HUMAN RIGHTS FOR INDIGENOUS PEOPLES

All over the world, indigenous peoples are fighting for their lives and for their ways of life. Some indigenous peoples have been engaged in these struggles for hundreds of years, while other peoples, because of the remoteness of the environments in which they live, have been spared from such struggles until more recent times. But remoteness no longer ensures protection. The industrialized countries of the world and transnational corporations now have the technological capability to extract oil from the once untouchable Arctic and Amazon, to build massive hydropower dams, to rearrange river systems from the tundra to the tropics, and to clearcut forests virtually anywhere in the world. The governments of the less developed countries also have access to this brutal technological capability.

The economies, the cultures, and the religious world views of indigenous peoples are based upon the environments in

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14. Images borrowed from Indian cultures already have had powerful effects in non-Indian society. For example, the international environmental organization Greenpeace takes the name of its flagship, the Rainbow Warrior, from a Cree prophecy that, when the survival of the earth is at stake and the animals begin to disappear, the Warriors of the Rainbow will come to the defense of the earth. MICHAEL BROWN & JOHN MAY, THE GREENPEACE STORY 12–13 (1989).
16. For a definition of indigenous peoples, see infra notes 20–24 and accompanying text.
which they live.\textsuperscript{18} The destruction of these environments renders the survival of these peoples as distinct societies difficult or impossible. Despite the forces that threaten their survival, however, indigenous peoples in many parts of the world somehow have managed to carry on. With a total estimated population of some 200 to 300 million, indigenous peoples constitute about four or five percent of the world's population.\textsuperscript{19}

Even though indigenous peoples are minority cultures,\textsuperscript{20} they rightly insist that we draw a distinction between them and ethnic or national minorities. Generally, the distinction reflects the legacy of the age of colonialism. One definition of the term "indigenous" was proposed by the Special Rapporteur on the Problem of Discrimination against Indigenous Populations, who was appointed under the auspices of the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities:

Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories,
and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems.\textsuperscript{21}

Although no commonly accepted definition of indigenous peoples has yet been fashioned,\textsuperscript{22} the Special Rapporteur's definition includes some of the key concepts that fit most cases. Particularly, it includes the concepts that indigenous peoples identify themselves as indigenous, that their ways of life are tied to their ancestral territories, that peoples who are relative newcomers exercise some degree of political domination over them, and that they are determined to remain distinct peoples. Although some of these factors also apply to many ethnic minorities, the cultural connection to ancestral lands generally serves to distinguish indigenous peoples from ethnic minorities.\textsuperscript{23} All over the world, indigenous peoples express their connection to their lands and their respect for the environment in spiritual terms.\textsuperscript{24} They provide living proof that it is possible


\textsuperscript{22} See Hannum, supra note 2, at 662–66 (noting the difficulty of defining the term "indigenous"). Robert A. Williams, Jr., notes that indigenous peoples generally have not accepted formal definitions. He employs as a working definition:

\begin{quote}
those groups colonized by Western or other settler states and who have lost their [external] sovereignty while maintaining a distinct cultural identity. Indigenous peoples usually seek to sustain their distinct cultural identity in intimate relation with their traditionally-occupied territories. The best evidence of this distinct cultural identity results from indigenous peoples identifying themselves as such.
\end{quote}

Williams, supra note 2, at 663 n.4.

\textsuperscript{23} Professor Hannum has suggested that:

\begin{quote}
Although there is some evidence of a “blue water” syndrome in defining pre-invasion indigenous peoples, it seems clear that Asian “hill tribes” such as the Karen and Hmong, and Arab and African nomadic tribes who pursue traditional life-styles, also should be included in a common-sense understanding of “indigenous.” Less certain would be the inclusion of survivors of overland invasions, such as the peoples of central or east Asia, Tibet, and Mongolia, and many African peoples.
\end{quote}


\textsuperscript{24} See \textsc{Global Quest}, supra note 17, at 10; \textsc{Maybury-Lewis}, supra note 11, at 35–62; \textsc{Suzuki & Knudtson}, supra note 1, at xxxii–xxiv; \textsc{World Bank, World Development Report 1992: Development and the Environment} 94 (1992) [hereinafter \textsc{World Development Report 1992}].
for human societies to provide for their needs over countless generations without destroying the ecosystems on which they depend, and that religious teachings can serve at least as well as science in setting the rules for living in balance with the natural world.

Although some indigenous peoples do not face imminent threats to their survival as distinct peoples, many do, and the forces that threaten them are largely beyond their control. To a large extent, the peoples of the industrialized (and industrializing) world have the power to decide whether indigenous peoples will survive. Utilitarian reasons can be advanced for ensuring indigenous peoples' survival. For instance, we can learn from their experience in balancing human needs with environmental preservation and from their knowledge of herbal medicine. To do this, however, we need to take some time to appreciate the subtleties of teachings which have been handed down over countless generations since mythic time. At another level, however, one can argue that we should not be governed by utilitarian thinking alone. We should act instead on principle. Indigenous peoples are part of the human family and we should treat them as such. We should recognize that they are entitled to human rights under international law as a matter of principle.

A. The Emerging International Law of Indigenous Rights

Modern international law has evolved in ways that reflect the history of colonial expansion, the growth in commercial and diplomatic dealings among states, and the numerous wars that have been fought, as well as the views of influential scholars.25 The evolution of international law occurred in conjunction with the rise of territorial states.26 The 1648 Treaty of Westphalia, which ended both the Thirty Years War and the political hegemony of the Roman Catholic Church, is said to have marked the beginning of the era of independent territorial states.27 Throughout this era, at least until the middle of the twentieth century, the subject matter of international law has

26. See Anaya, supra note 2, at 197.
27. Id.
been limited almost exclusively to rules governing the relations among states. A basic principle of international law is that states possess sovereignty, which includes both the power to govern citizens and territory and the capacity to enter into relations with other states. \(^28\) The internal affairs of states have been treated generally as matters within their exclusive jurisdiction but, in certain circumstances, are subject to limitations imposed by international law. \(^29\) In the latter part of the twentieth century, international law for the protection of human rights has added significantly to the limitations imposed on the internal sovereignty of states. \(^30\)

The two most influential schools of thought in the development of modern international law have been natural law, which holds that there is a universal normative order that applies to all human societies, and positivism, which holds that the norms of international law must be derived from the conduct of states, as evidenced by treaties and customs. \(^31\) In the sixteenth century, European theologians and jurists of the natural law school challenged Spanish claims to the lands of the indigenous peoples of the “New World.” \(^32\) One of the most influential of these theorists was Spanish Dominican Francisco de Vitoria, who, treating Indians as having the same rights as other humans, set forth rules by which European sovereigns validly could acquire ownership of or dominion over Indian lands. \(^33\) Vitoria’s writings and lectures were instrumental in establishing the practice of the European states of entering into treaty relationships with the Indian tribes and nations of North America, \(^34\) the European states came to recognize that Indian tribes and nations possessed some sovereignty over their

28. IAN BROWN, PRINCIPLES OF PUBLIC INTERNATIONAL LAW 287 (3d ed. 1979); see also 1 L. OPPENHEIM, INTERNATIONAL LAW 114–15 (7th ed. 1948) (discussing the distinction between sovereign states and those that are treated as such for certain purposes in international law). The historical roots of the term “sovereignty” reach back to the sovereigns of Europe, who were once thought to possess absolute power. HURST HANNUM, AUTONOMY, SOVEREIGNTY AND SELF-DETERMINATION 15 (1990).
29. Examples of such limitations include state responsibility for injury to aliens, diplomatic immunity, and the equitable use of water resources on which other states depend. Hannum, supra note 23, at 5.
30. See infra notes 41–51 and accompanying text.
aboriginal territories. Similarly, when the United States Supreme Court first addressed the status of an Indian tribe within the territory of the United States, Chief Justice Marshall drew on natural law philosophy in ruling that Indian tribes possessed sovereignty, were capable of entering into treaties with other sovereigns, and did not lose their sovereignty over internal affairs when they gave up sovereignty over external affairs.

In the latter part of the eighteenth century, however, positivism began to displace natural law as the dominant philosophy of international law, a development which corresponded with the steady rise in prominence of territorial states, which increasingly claimed absolute supremacy. From the middle of the nineteenth century and throughout most of this century, positivist theory also was based, in part, on the premise that the universe of states possessing the right to participate in formulating international law is a limited universe which does not include indigenous peoples that are "outside the mold of European civilization." Since European states and others in their mold were engaged in colonization in and the exploitation of resources from the territories of non-European civilizations, it was important for the positivists to be able to exclude indigenous peoples from participating in the formulation of the rules of international law. As positivism became the dominant school of thought in international law, the aspirations of indigenous peoples to be treated as members of the international community were steadfastly rejected, and international law became "a legitimizing force for colonization and empire."

35. See, e.g., id. at 16 (describing the Spanish recognition of the Indians' right to occupy land pledged to them).
36. Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 559-61 (1832). In a case decided in the preceding term, Chief Justice Marshall had ruled that the Cherokee Nation was not a "foreign state" for purposes of the original jurisdiction of the Supreme Court. See Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 19 (1831). As Professor Anaya has noted, this ruling was not based on the notion that Indian tribes had an inherently inferior status to that of European states, but rather on the treaty relationship in which the Cherokee Nation had acknowledged itself to be under the protection of the United States. See Anaya, supra note 2, at 201 n.51 (citing Cherokee Nation, 30 U.S. (5 Pet.) at 17). For more on the Cherokee cases, see Joseph C. Burke, The Cherokee Cases: A Study in Law, Politics, and Morality, 21 STAN. L. REV. 500 (1969).
37. HENKIN ET AL., supra note 25, at xxxvII.
38. Anaya, supra note 2, at 204-05.
39. Id. at 204-11.
40. Id. at 204.
The founding of the United Nations at the end of the Second World War marked the beginning of a new era in international law, during which most of what now is considered "international human rights law" emerged. The United Nations Charter includes "promoting and encouraging respect for human rights and for fundamental freedoms for all" in its statement of purposes and principles. In 1948, the United Nations General Assembly adopted the Universal Declaration of Human Rights and the Convention on the Prevention and Punishment of the Crime of Genocide. The United Nations and other international organizations have adopted a number of other human rights instruments as well, including the two principal multilateral treaties for the protection of human rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights. These two International Covenants, together with the Universal Declaration and the Optional Protocol to the International Covenant on Civil and Political Rights, sometimes are referred to collectively as the International Bill of Human Rights. These instruments proclaim the rights of individuals against states, and they constitute important limitations on the principle that the state's sovereignty over matters within its domestic jurisdiction is not subject to intervention by any other state or group of states.

42. U.N. CHARTER art. I, ¶ 3. The U.N. Charter was signed at San Francisco on June 26, 1945 and entered into force on October 24, 1945. Id.
45. See generally GUIDE TO INTERNATIONAL HUMAN RIGHTS PRACTICE, supra note 41.
49. Kathryn J. Burke, Introduction to NEW DIRECTIONS IN HUMAN RIGHTS, supra note 23, at xi.
50. See Hannum, supra note 23, at 17 (noting that even Article 27 of the Covenant on Civil and Political Rights, where "the protection of groups is clearly the primary concern," has been applied to protect individual members of groups and not groups themselves).
During this same period, the right of all peoples to self-determination gained currency, culminating in 1960 in the General Assembly's adoption of the Declaration on the Granting of Independence to Colonial Countries and Peoples. The right of peoples to self-determination also is enshrined in the common first article of both of the International Human Rights Covenants. The right to self-determination differs from other rights protected by international human rights law because it is a collective rather than an individual right. In exercising its right to self-determination, a people determines for itself its political status from a range of options, including status as a sovereign independent state, free association with a state, various forms of autonomy within a state, and integration within a state. Although the Declaration and the Covenants say that "all" peoples have the right to self-determination, in practice the right has been limited to former colonies which had been ruled by overseas powers. Even within former colonies, the right to self-determination has not benefitted indigenous peoples. In the Americas and Australia, most indigenous peoples live within the boundaries of states that achieved independence long before the founding of the United Nations. Elsewhere, borders previously drawn by colonial powers remained in effect and became the borders of newly independent states with little regard for territories of indigenous peoples living within or astride those borders.

Declaration on Principles of International Law]; see also Anaya, supra note 2, at 214–15 (citing the United Nations' promotion of self-determination for historically colonial territories as evidence of a new approach to the concept of state sovereignty that emphasizes collective human interests).

52. See Hannum, supra note 23, at 7–9 (discussing the evolution of the concept of self-determination from a "principle" to a "right").


54. Both the Covenant on Civil and Political Rights, and the Covenant on Economic, Social and Cultural Rights, begin with an identical Article 1, the first section of which proclaims: "All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development." International Covenant on Economic, Social and Cultural Rights, supra note 47, at 49; International Covenant on Civil and Political Rights, supra note 46, at 53.

55. Hannum, supra note 23, at 8; Hannum, supra note 2, at 671–72.

56. Hannum, supra note 23, at 9; Anaya, supra note 2, at 214–15; see also John P. Humphrey, Political and Related Rights, in 1 HUMAN RIGHTS IN INTERNATIONAL LAW 171, 193–96 (Theodor Meron ed., 1984) (arguing that there is little support in the legislative history of the two International Covenants for the view that the General Assembly intended to limit the meaning of the word "peoples" to include only colonial peoples).

To address these problems, an international movement emerged in the 1970s, seeking to use international law to protect the rights of indigenous peoples. Indigenous peoples soon discovered, however, that international human rights law lacked specific provisions to address many of their concerns. Indigenous peoples are primarily concerned with their collective rights as distinct peoples, while international human rights law is mainly concerned with the rights of individuals against states. Their demands for self-determination, the principal human right that is collective in nature, have met with negative reactions from states, in large part because self-determination implies the right to choose independent statehood.

In the 1980s, the United Nations Working Group on Indigenous Populations became the focus of the efforts of indigenous peoples to gain international legal recognition of

58. See Hannum, supra note 2, at 658–60; Williams, supra note 2, at 676.
59. See generally Clinton, supra note 2.
60. See supra text accompanying notes 41–51. Although indigenous peoples mainly are concerned with collective rights, there are instances in which indigenous individuals have been successful in using international human rights law to protect their interests, and in doing so have advanced the rights of other indigenous individuals. One example is Sandra Lovelace, a Maliseet Indian woman who filed a complaint with the U.N. Human Rights Committee challenging a Canadian law which prohibited her from residing on her Band's reserve because of her marriage to a non-Indian. The Human Rights Committee ruled that the Canadian law violated her right under Article 27 of the Covenant on Civil and Political Rights "in community with the other members of [her] group, to enjoy [her] own culture." Views of the Human Rights Committee Under Article 5(4) of the Optional Protocol to the International Covenant on Civil and Political Rights Concerning Communication No. 24/1977 Sandra Lovelace, 36 U.N. GAOR Supp. No. 40, at 166, 177, U.N. Doc. A/36/40 (1981), reprinted in HUMAN RIGHTS COMMITTEE, SELECTED DECISIONS UNDER THE OPTIONAL PROTOCOL at 86–87, U.N. Doc. CCPR/C/OP/1, U.N. Sales No. E.84.XIV.2 (1985). This decision contributed to the enactment of amendments to Canada's Indian Act, R.S.C., ch. 32, § 7(2)(3) (1st Supp. 1985) (Can.), which allows Indian women (and their children) to be registered as Indians. The amendments also allow bands to assume control of their own membership. Id. § 10(1). My wife and children, who are members of the Kahnawake Band of the Mohawk Nation (which has a reserve in Quebec, Canada), have personally benefitted from this legislation.


62. See supra note 3.
their human rights. The Working Group has been charged with developing standards for protecting the human rights of indigenous peoples. The following sections present a brief discussion of the substance of these emerging human rights standards, including the right to self-determination.

1. The United Nations Working Group—After a decade-long study by a Special Rapporteur, the United Nations established the Working Group on Indigenous Populations. Through this action, the United Nations in effect acknowledged that the existing international law of human rights was not adequate to protect the human rights of indigenous peoples. The Working Group is comprised of five experts who serve in their individual capacities rather than as representatives of states. Its annual meetings are open to representatives for indigenous peoples, nongovernmental organizations, and states. The Working Group is charged with a two-part mandate:

(a) [To r]eview developments pertaining to the promotion and protection of human rights and fundamental freedoms of indigenous peoples, including information requested by the Secretary-General annually from Governments, specialized agencies, regional intergovernmental organizations and nongovernmental organizations in consultative status, particularly those of indigenous peoples, to analyze such materials, and to submit its conclusions to the Sub-Commission, bearing in mind the final report of the Special Rapporteur of the Sub-Commission . . . ;

(b) [To g]ive special attention to the evolution of standards concerning the rights of indigenous peoples, taking account of both the similarities and the differences in the situations and aspirations of indigenous peoples throughout the world.

In carrying out the first part of its mandate, the Working Group has become a forum for indigenous peoples to present information about specific instances where the actions of

64. Stomski, supra note 63, at 579.
national governments and transnational corporations have come into conflict with their (the indigenous peoples') rights and interests.\textsuperscript{66} State representatives have reported on developments in domestic law that provide some measure of autonomy for indigenous peoples or otherwise provide legal recognition of their distinctiveness.\textsuperscript{67} Participants also have been instrumental in the recent revision of the International Labour Organisation Convention on tribal and indigenous peoples.\textsuperscript{68} By serving as a forum for these issues, the Working Group has performed a critical service for indigenous peoples and for the community of nations.

2. The Substance of Indigenous Rights—In recent years, the Working Group has emphasized the second part of its mandate. It is in the implementation of this second part of the mandate that much of the substance of indigenous rights can be found. Currently, the Working Group is fashioning a draft declaration on the rights of indigenous peoples for the United Nations General Assembly to adopt.\textsuperscript{69} Such General Assembly

\begin{footnotesize}
\begin{footnotes}{66}\textsuperscript{66} Stomski, supra note 63, at 577.\end{footnotes}
\begin{footnotes}{67}\textsuperscript{67} Id.\end{footnotes}

declarations, however, do not necessarily have the force of international law. Although some General Assembly declarations are authoritative in international law, they more commonly are adopted as a step in the development of positive international law, which then is codified in multilateral treaties that are binding on state parties. The declaration of the rights of indigenous peoples, when adopted, should carry significant weight in international law because it will interpret the existing norms of positive and customary international law which are enshrined in the two International Covenants and other international human rights instruments. Regardless of the legal force of the declaration, the extent to which states honor the principles of the declaration will be a function of the moral force behind the declaration.

a. Cultural, Territorial, and Environmental Protection — The principles expressed in the draft declaration reflect the aspirations of indigenous peoples as tempered by the demands of states. They include the full enjoyment of all human rights under existing human rights instruments, the preservation of cultural identities, the use of the lands and waters on which the indigenous cultures depend, and autonomy within their traditional territories. Of the thirty-nine operative paragraphs in the draft declaration that is annexed to the Working Group's report on its tenth session in 1992, twenty-nine paragraphs emphasize one or more of the following: culture and the rights of indigenous peoples to maintain their distinct identities; the rights of indigenous peoples in the lands and waters that comprise their traditional homelands, and in the economic and cultural activities that are based on these homelands; and the


72. SCHACHTER, supra note 70, at 84–105.
rights of indigenous peoples to autonomy in their internal affairs, including the right to determine the structures of their institutions. 73

The paragraphs that mainly are concerned with the preservation of culture include specific provisions addressing such matters as language, religion, education, the manifestations of culture, and repatriation of items of cultural patrimony and human remains. 74 The paragraphs primarily concerned with lands and territories expressly acknowledge the "profound relationship" that indigenous peoples have with their lands and recognize indigenous land tenure systems, the right to "effective State measures" to prevent encroachment on indigenous territories, and the right to restitution or compensation for lands taken or damaged without free and informed consent. 75 Many of these paragraphs articulate indigenous rights that, if honored, would present obstacles to the prerogatives of states to make decisions regarding the exploitation of natural resources. For example, one of the draft operative paragraphs proclaims:

Indigenous peoples have the right to maintain and develop within their lands and other territories their

73. Working Group 1992 Report, supra note 69, at 46–52. This classification of operative paragraphs by subject matter is not precise, as rights relating to culture, territory, and autonomy necessarily overlap. My intent in offering this classification is to give readers a general idea of the breadth of the content of the draft declaration without engaging in a detailed analysis. Of the operative paragraphs in the 1992 draft, in my view, nine can be said to emphasize culture and collective identity (operative paragraphs 3, 5, 6, 8, 9, 10, 12, 13, 19); five can be said to emphasize territory (operative paragraphs 15, 17, 18, 20, 38); and nine can be said to emphasize autonomy (operative paragraphs 1, 23, 25, 26, 28, 29, 30, 31, 37). Id. In addition, three paragraphs emphasize both culture and territory (operative paragraphs 7, 21, 23); one emphasizes both culture and autonomy (operative paragraph 11); one emphasizes both territory and autonomy (operative paragraph 16); and one emphasizes autonomy but includes specific provisions relating to culture and territory (operative paragraph 27). Id. at 47–50. Given the overlap inherent in the concepts of culture, territory, and autonomy as applied to indigenous peoples, rather than breaking down the draft declaration as outlined in this note, it may be more useful just to say that about three-fourths of the content of the draft declaration are devoted to these three interrelated subjects. Of the remaining 10 operative paragraphs, I would characterize the emphasis of these as follows: five emphasize general principles of human rights and international law and clarify that the rights of indigenous peoples are not limited to those stated in the draft declaration (operative paragraphs 2, 4, 34, 35, 39); four emphasize the obligations of states (operative paragraphs 14, 22, 33, 36); and one emphasizes the resolution of disputes (operative paragraph 32). Paragraph 31, relating to treaties and agreements, which I have listed as emphasizing autonomy, also deals with dispute resolution. Id. at 46–52.

74. Id. at 46–50 (operative paragraphs 3, 5–13, 19, 21, 23).
75. Id. at 47–50, 52 (operative paragraphs 7, 15–18, 20, 21, 23, 38).
economic, social, and cultural structures, institutions and traditions, to be secure in the enjoyment of their traditional means of subsistence, and the right to engage freely in their traditional and other economic activities, including hunting, fishing, herding, gathering, lumbering and cultivation. In no case may indigenous peoples be deprived of their means of subsistence. They are entitled to just and fair compensation if they have been so deprived.76

The prohibition against depriving an indigenous people of its means of subsistence is drawn from the common first article of the two International Human Rights Covenants,77 and the express inclusion of this prohibition in the declaration of indigenous rights would make it clear that this provision of positive international law also applies to indigenous peoples. The first sentence in the paragraph quoted above identifies the kinds of activities through which indigenous peoples provide for their subsistence. Thus, activities carried out within the territories of indigenous peoples that deprive indigenous peoples of their means of subsistence would constitute human rights violations, whether such activities are carried out as part of state-sponsored “development” projects or by transnational corporations acting with state approval.

b. Self-Determination—Throughout the Working Group’s decade-long existence, representatives of states and indigenous peoples have debated the principle of self-determination.78 The draft declaration’s treatment of the right to self-determination remains a controversial issue.79 The first operative paragraph of the draft declaration proclaims:

Indigenous peoples have the right of self-determination, in accordance with international law by virtue of which

76. Id. at 49 (operative paragraph 21). Another example of such a provision is found in operative paragraph 20 of the 1992 Draft, which would require the “free and informed consent” of affected indigenous peoples “prior to the commencement of any large-scale projects, particularly natural resource development projects or exploitation of mineral and other subsoil resources.” Id. (operative paragraph 20).

77. Section 2 of the common first article, provides, in part: “In no case may a people be deprived of its own means of subsistence.” International Covenant on Economic, Social and Cultural Rights, supra note 47, at 49; International Covenant on Civil and Political Rights, supra note 46, at 53.

78. See HANNUM, supra note 28, at 95–96.

they may freely determine their political status and institutions and freely pursue their economic, social and cultural development. An integral part of this is the right to autonomy and self-government.\footnote{Id. at 46 (operative paragraph 1). In addition, the 13th, 14th, and 15th preambular paragraphs address self-determination and the right of indigenous peoples to determine their relationships with states. Id. at 45. These paragraphs are based on the common first article of the two International Covenants. See supra note 54.}

In the controversy over the right to self-determination, many observers, both those representing states and those representing indigenous peoples, have framed the right as all or nothing, one which indigenous peoples either have or do not have.\footnote{See HANNUM, supra note 28, at 95–96.} Under this view, if indigenous peoples do have the right to self-determination, it implies that they have an absolute right to choose political independence and to be recognized by the international community as an independent state. As could be guessed, existing states oppose indigenous peoples having such a right and have argued that indigenous peoples are not “peoples” as the term is used in the International Human Rights Covenants.\footnote{Id. at 74 n.277; Anaya, supra note 2, at 218–19; see also Working Group 1992 Report, supra note 69, at 17–19 (noting that both the United States of America and Canada have taken the position that if the term “peoples” is used in the declaration, the term should be qualified to make clear that it does not imply that indigenous peoples have the right of self-determination as it is understood in international law).}

Characterizing the right to self-determination in such an absolute way may be counterproductive because doing so gets in the way of fashioning real-world arrangements to ensure the survival of indigenous peoples. Most indigenous peoples do not seek recognition as independent states,\footnote{Anaya, supra note 2, at 218–19.} but rather seek to establish relationships with states that will provide autonomy within their traditional territories.\footnote{HANNUM, supra note 28, at 95.} Professor Hannum stresses that self-determination has both an external aspect, the right to choose to be recognized as an independent state, and an internal aspect, the right of autonomous self-government; he suggests that internal self-determination is much more important for ensuring that indigenous peoples have control over their own lives and the survival of their cultures.\footnote{Id. at 97.} Many indigenous peoples need protection against private persons (individuals and corporations) who intrude into their territories and against attempts by subnational levels of government to
assert jurisdiction within their territories.86 Many, perhaps most, indigenous peoples would forswear freely any claims to external sovereignty in exchange for enforceable promises that states would provide protection against such threats (although indigenous peoples will be wary of such promises until there are enforcement mechanisms under international law). As Professor Anaya says, “The absolutist view of self-determination moreover, misses the principle’s essential thrust, which is not fundamentally about exercising a one-shot choice for some degree of ‘sovereignty’ but, rather, is about securing for individuals and groups a political order that promotes a perpetual condition of freedom.”87 In other words, in its quest for external self-determination, the absolutist view neglects internal self-determination.

Moreover, given that the draft declaration has been prepared for adoption by the United Nations, which is a collective body of states, a right to internal self-determination may be as much as indigenous peoples realistically should expect. The Chairperson/Rapporteur of the Working Group has indicated as much, stating that the principle of self-determination has been used in the draft declaration “in its internal character, that is short of any implications which might encourage the formation of independent states.”88 Nevertheless, if indigenous peoples are to have real freedom in determining their relationships with states and in exercising autonomous self-government, there must be some possibility of international intervention in instances where states deprive indigenous peoples of their human rights, including the right to internal self-determination.89 That is, in some cases, true autonomy may not be attainable without external self-determination as well. States such as the United States and Canada, which consider themselves leaders in the international human rights movement, rather than focusing their diplomatic attention on denying

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86. In the United States, the federal government has frequently supported tribal governments in resisting assertions of authority over Indian country by state governments. See COHEN, supra note 5, at 259–79.
87. Anaya, supra note 32, at 35.
89. See HANNUM, supra note 28, at 471–74. Hannum notes that several scholars have argued that international law should recognize a right of secession when a state violates the human rights of a group. He further suggests that there is in international law a right to autonomy for minority groups and indigenous peoples which should be used in fashioning arrangements to resolve conflicts before they escalate into civil war and demands for secession. See id.
indigenous peoples the right of external self-determination under any circumstances, instead should begin to focus on ensuring genuine internal self-determination for indigenous peoples within their jurisdictions, defining the kinds of circumstances in which external self-determination may be warranted, and fashioning the processes through which the international community may intervene to make self-determination for indigenous peoples a reality.

It seems to me that the debate about self-determination is not really about the threat that indigenous peoples will choose to become independent states. The argument about independence and the territorial integrity of states looks suspiciously like a straw man. Perhaps the argument is really about who has the right to decide what uses of natural resources will be permitted within the territories of indigenous peoples. The overwhelming concern of indigenous peoples is to preserve the integrity of the natural environments on which their ways of life depend. States, transnational corporations, and others see these natural environments as largely unused, and they seek to exploit natural resources without much regard for the use patterns of indigenous peoples. If a state which claims sovereignty over the territory of an indigenous people either seeks itself to exploit the resources of that territory in ways that threaten the survival of the indigenous people, or permits such exploitation, the indigenous people would be likely to choose independence or association with another state. This suggests that whatever the right to "self-determination" means, it must, at the very least, include the right to reject absolutely the exploitation of natural resources in ways that the indigenous peoples determine for themselves threaten their rights to remain distinct self-governing peoples. Perhaps the real reason that states object to self-determination is the specter of indigenous peoples having such an absolute right to control their territories, territories which the states see as their own.

90. They do this, for example, by raising the empty semantic argument that indigenous peoples are somehow not really "peoples." See supra note 82.
91. See HANNUM, supra note 28, at 95, 463-64 (suggesting that a government's emphasis on territorial integrity may be "merely a smokescreen to cover up its unwillingness to share political power").
92. See supra note 18 and accompanying text.
93. See generally GLOBAL QUEST, supra note 17, at 23-30, 43-67.
94. HANNUM, supra note 28, at 98-99; see also supra notes 76-77 and accompanying text.
B. The Present Reality and Ever-Present Threat of Cultural Genocide

While the deliberations of the Working Group proceed, some indigenous peoples must contend with actions that can accurately be labeled "genocide" within the meaning of the Convention on the Prevention and Punishment of the Crime of Genocide.\textsuperscript{95} The Working Group continues to receive reports of such actions.\textsuperscript{96} Accordingly, the draft declaration proclaims that indigenous peoples have "the collective right to exist in peace and security as distinct peoples and to be protected against genocide."\textsuperscript{97}

Raising the charge of genocide, however, can yield more heat than light. The word "genocide" is inherently inflammatory, probably because the crime is so terrible. Despite the appalling nature of the crime, legalistic arguments can be advanced to deflect the charge of genocide. For example, under the Convention, the crime requires specific intent to destroy a group,

\begin{itemize}
  \item Killing members of the group;
  \item Causing serious bodily or mental harm to members of the group;
  \item Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
  \item Imposing measures intended to prevent births within the group;
  \item Forcibly transferring children of the group to another group.
\end{itemize}

\textit{Id.}


In one case churchgoers had been taken out from the church, detained, tortured, murdered and dumped from helicopters into the sea. There were also reports about military attacks on indigenous villages, including summary executions of innocent people and children. In one incident, women and nuns were raped by soldiers. Nearly all of them died because of their injuries. In some areas indigenous people are constantly harassed by the armed forces, and they have fled to neighbouring countries or into the jungle.

\textit{Id; see also Global Quest,} supra note 17, at 82–90 (discussing examples of acts of genocide against indigenous peoples in several countries).

\textsuperscript{97} \textit{Working Group 1992 Report,} supra note 69, at 46 (operative paragraph 5).
and specific intent can be denied. In addition, "reservations" and "understandings" by some state parties provide grounds for arguments that acts which have the effect of destroying a group (without specific intent to do so) do not constitute genocide. The Working Group has used the term "cultural genocide" in the draft declaration, providing a term to cover actions that have the effect of destroying indigenous peoples as distinct societies and which does not require a showing of specific intent. The term "cultural genocide" is generally synonymous with the term "ethnocide," which has been defined as denying an ethnic group "its right to enjoy, develop and disseminate its own culture and language." As the draft declaration states,

Indigenous peoples have the collective and individual right to be protected from cultural genocide, including the prevention of and redress for:

(a) Any act which has the aim or effect of depriving them of their integrity as distinct societies, or of their cultural or ethnic characteristics or identities;
(b) Any form of forced assimilation or integration by imposition of other cultures or ways of life;
(c) Dispossession of their lands, territories or resources;
(d) Any propaganda directed against them.

Under the Working Group's definition, cultural genocide has taken place all over the world, even recently in the United States. For instance, the United States' "termination" policy of the 1950s

99. For example, the United States ratified the Genocide Convention subject to two reservations, five understandings, and one declaration. S. EXEC. REP. NO. 2, supra note 98, at 17-26. The "mental harm" understanding is construed so that, to constitute genocide, mental harm "must be caused by some actual physical injury." Id. at 23. This understanding appears to render the words "mental harm" in Article II of the Convention superfluous. The "armed conflict" understanding specifies that "acts in the course of armed conflicts committed without the specific intent required by Article II are not sufficient to constitute genocide." Id. at 25. Some members of the Senate Foreign Relations Committee, who described this understanding as an "embarrassment to the United States," noted the "relatively imprecise definition of 'armed conflicts' in international law" and said that the understanding would "call attention to our fears about being brought to account for acts committed in armed conflicts." Id. at 32.
and early 1960s clearly fits the concept.\textsuperscript{102} Racial prejudice and notions of racial superiority provide the rationalizations for cultural genocide.\textsuperscript{103} Despite the human rights norm inherent in the Genocide Convention that all cultural groupings have the right to exist,\textsuperscript{104} the destruction of indigenous peoples continues, in part because of the notion that indigenous ways of life are somehow inferior to those of modern industrialized societies. Those who seek to defend the rights of indigenous peoples must work to make this notion simply untenable. Indigenous peoples believe that their right to survive and to control their own territories should be respected not only because they are entitled to basic human rights but also because they have some values and wisdom to share with the other peoples of the Earth. To put an end to the destruction of indigenous peoples, indigenous rights advocates must help the rest of the world to see that there is real value in what indigenous peoples have to offer, especially in their spiritual relationships with the Earth and with nonhuman living things.

Those who would defend the human rights of indigenous peoples can draw many lessons from the long history of the relations between the United States and the indigenous tribes and nations of North America. Although the autonomy possessed by Indian tribes in the United States is less than ideal, tribes do exercise a broad range of governmental powers, and the simple fact that more than 500 federally recognized tribes continue to exist in the United States\textsuperscript{105} suggests that positive as well as negative lessons may be drawn. Two of the most important lessons are: (1) forced assimilation does not work and (2) local autonomy and self-government can work. In my view, these two lessons are fundamental for the survival of indigenous peoples throughout

\textsuperscript{102} See COHEN, supra note 5, at 152–80. During the “termination era” of federal Indian policy in the United States, the United States unilaterally ended the federally recognized status of more than 100 Indian tribes and also ended federal trust restraints on alienation of lands held by terminated tribes. \textit{Id.} at 173–75.

\textsuperscript{103} See HANNUM, supra note 28, at 74–75. Professor Clinton suggests that cultural genocide is a product of western notions of the culturally homogenous nation-state. See Clinton, \textit{supra} note 2, at 746.

\textsuperscript{104} Anaya, \textit{supra} note 32, at 16.

\textsuperscript{105} Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs, 53 Fed. Reg. 52,829 (1988); see also Jim Carrier, “We're Still Here”: After Centuries of Oppression, Future Is Looking Up for America’s Indians, \textit{DENVER POST}, Aug. 16, 1992, at 1A, 14A (noting that native Indian populations and lands are increasing despite political and social challenges).
the world. The next part of this Article examines tribal autonomy in the United States in some detail, with an emphasis on tribal authority for protection of the environment and the preservation of tribal cultures.

II. A COMPARATIVE LAW EXAMPLE: INDIAN RIGHTS IN THE UNITED STATES

A substantial body of law, including treaties, statutes, and court decisions, defines the relationship between the United States and the Indian tribes and nations of North America. Some legal principles supporting tribal autonomy have remained fairly constant throughout most of United States history, even while federal policies encouraged or forced assimilation. Indian law is a complex field, and generalizations are subject to exceptions and can be misleading. Nevertheless, some general principles should be noted briefly.

106. Professor Hannum observes that, regardless of whether international recognition of an indigenous right to self-determination would make states more willing to negotiate with indigenous peoples, "abandonment of coercive assimilationist or integrationist policies which inevitably subordinate indigenous to state interests is essential, and control by indigenous peoples over their own destiny must be part of any policy which claims to be consistent with human rights principles." HANNUM, supra note 28, at 103.

107. Part II of this Article is adapted from an essay that I wrote entitled Keepers of the Native Treasures, written for the book Past Meets Future, which was published by the National Institute for Historic Presentation and commemorated the 25th anniversary of the National Historic Preservation Act of 1966. See Dean B. Suagee, Keepers of the Native Treasures, in Past Meets Future: Saving America's Historic Environments 189-95 (Antoinette J. Lee ed., 1992).


109. For example, Professor Hannum says, "The 1934 Indian Reorganization Act returned some powers to tribal governments, but only on condition that 'modern' forms of democratic government were adopted." HANNUM, supra note 28, at 101. On the contrary, § 16 of the Indian Reorganization Act (IRA) expressly provides that the powers of tribal governments specified in constitutions adopted pursuant to the Act would be "in addition to all powers vested in any Indian tribe or tribal council by existing law." 25 U.S.C. § 476 (1988). Although the Bureau of Indian Affairs in many cases presented model constitutions pursuant to the IRA which were alien to traditional Indian culture, see James L. Lopach & Richard Monteau, Preface to TRIBAL CONSTITUTIONS, THEIR PAST—THEIR FUTURE, at v (James L. Lopach et al. eds., 1978), a number of tribes rejected the IRA, VINE DELORIA, JR, & CLIFFORD LYTTLE, THE NATIONS WITHIN: THE PAST AND FUTURE OF AMERICAN INDIAN SOVEREIGNTY 168 (1984). The tribal decision not to adopt an IRA constitution has not operated to divest a tribe of its inherent sovereignty. See United States v. Wheeler, 435 U.S. 313, 323–32 (1978) (holding that criminal prosecution by the Navajo Nation, a tribe without an IRA constitution, was an exercise of inherent tribal sovereignty and that therefore the double jeopardy clause of the Bill of Rights did not bar the federal government from prosecuting the defendant for a federal offense based on the same act).
A. Inherent Sovereignty and Other Principles

One of the cornerstones of this body of law is the doctrine of inherent tribal sovereignty. Indian tribes are sovereign governments that the United States Supreme Court has described as "domestic dependent nations."

As governments, the tribes are distinct from both the federal government and the states, and their sovereignty predates the United States Constitution.

Indian tribes have governmental powers as an aspect of their original or inherent sovereignty, but these powers can be divested by Congress through its "plenary power." Within their reservations, tribes generally retain all powers other than those they gave up in treaties, had taken away by an express act of Congress, or had taken away by implicit divestiture as a result of their dependent status. Accordingly, the tribes have authority over a wide range of subject matter, although the federal government has concurrent authority over much of this range. State governments generally lack jurisdiction over tribes and Indians within reservations, unless expressly granted jurisdiction by the federal government, but states generally do have jurisdiction over non-Indians within reservations, except when preempted by federal law or when the exercise of state authority would infringe upon tribal self-government.

Although the legal recognition of tribal sovereignty is a long-standing principle of federal law, federal policies intended to encourage or force Indians to give up their distinctive cultures and to become assimilated into the dominant society also have

112. COHEN, supra note 5, at 207–20, 232–35. For Congress to exercise this power would be fundamentally contrary to the letter and spirit of the Draft Declaration on the Rights of Indigenous Peoples.
113. Id. at 241–46. Although it has some historical roots in opinions by Chief Justice Marshall, id. at 244–45, the implicit divestiture rule as applied in Oliphant v. Suquamish Indian Tribe, 435 U.S. 191 (1978), was essentially a new doctrine of federal Indian law. The Oliphant Court held that the tribes had been implicitly divested of their inherent sovereignty to exercise criminal jurisdiction over non-Indians. See Oliphant, 435 U.S. at 201–11; Curtis G. Berkey, International Law and Domestic Courts: Enhancing Self-Determination for Indigenous Peoples, 5 HARV. HUM. RTS. J. 65, 70–75 (1992).
114. COHEN, supra note 5, at 259.
been the rule throughout most of American history.\textsuperscript{117} For example, during the "allotment" era, the federal government removed a substantial amount of land from tribal possession.\textsuperscript{118} During the "termination" era, the federally recognized status of over a hundred tribes was brought to an abrupt end,\textsuperscript{119} and many other tribes were subjected to state jurisdiction without tribal consent.\textsuperscript{120} Although we now are entering the third decade of the "self-determination" era in federal Indian policy, we still must live with the legacy of generations of assimilationist policies.

In addition to their governmental powers, tribes have proprietary rights as landowners—rights which can act to buttress the Indians' governmental powers over non-Indians on tribal lands. Nevertheless, much of the land on many reservations now is owned by non-Indians. Inherent tribal authority over non-Indians on fee lands within reservations apparently is limited primarily to instances in which the non-Indians have entered into "consensual relationships with the tribe or its members" or in which a tribe seeks to regulate conduct that "threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe."\textsuperscript{121}

In addition, the tribes' proprietary rights as landowners are subject to the "trust responsibility" of the federal government.

\textsuperscript{117} See generally id. at 62–180.

\textsuperscript{118} During the "allotment" era of federal Indian policy, the federal government sought to force Indians to become assimilated into the dominant American society by replacing the tribal practice of holding land in common with individual ownership, that is, by allotting tribal lands to individuals. See generally id. at 127–43. The General Allotment Act of 1887, ch. 119, 24 Stat. 388 (1887), generally is considered to mark the beginning of this era, although some Indian lands were allotted before 1887. COHEN, supra note 5, at 129. The policy of allotting tribal lands ended in 1934 with the enactment of the Indian Reorganization Act, ch. 576, 48 Stat. 984 (1934) (codified as amended at 25 U.S.C. §§ 461–463, 465–479 (1988)). Section 1 expressly prohibited further allotments. See 25 U.S.C. § 461 (1988). During the allotment era, a great deal of land passed out of Indian possession, through homesteading and sale of so-called "surplus" lands and by sale of Indian allotments after the expiration of trust restrictions. Of approximately 138 million acres of Indian lands in 1887, only 48 million acres remained in 1934. COHEN, supra note 5, at 138.

\textsuperscript{119} See supra note 109 and accompanying text.


This trust responsibility is based largely on the unusual nature of Indian land ownership, in which the federal government imposes restraints on alienation of Indian land and holds legal title to most Indian land in trust for the benefit of Indians.\(^\text{122}\) But the federal government frequently has not fulfilled its trust responsibility. Furthermore, the doctrine of the plenary power of Congress, under which the federal government unilaterally has changed the terms of its relationships with tribes, is fundamentally inconsistent with the emerging principle that indigenous peoples "freely determine" their relationships with states.\(^\text{123}\) Federal policy toward some of the indigenous peoples of the United States, in particular, Alaska natives, native Hawaiians, and the many "terminated" tribes, has been particularly dishonorable.\(^\text{124}\) In light of this, some Indian-rights advocates have suggested that tribes urge courts to consider the emerging international law of indigenous rights in cases involving challenges to tribal sovereignty.\(^\text{125}\) The recent trend among tribal leaders, however, is to persuade Congress to use its plenary power in an honorable way to enhance and reinforce tribal authority.\(^\text{126}\)

### B. Federal Policy in the "Self-Determination" Era

Despite the limitations that federal law imposes on tribal self-government and the enduring legacy of generations of assimilationist federal policies, Indian people have proven to be quite

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122. COHEN, supra note 5, at 220–28. One of the policy objectives of the trust responsibility is to preserve a land and resource base so that tribes can remain distinct societies and maintain their cultural traditions. Id. at 509–10.


124. In some ways, federal policies toward Alaska natives have been similar to policies toward Indians in the contiguous forty-eight states, but there also have been significant differences. The single most important legislative act affecting Alaska natives is the Alaska Native Claims Settlement Act (ANCSA) of 1971, 43 U.S.C. §§ 1601–1629e (1988). See generally COHEN, supra note 5, at 739–70. In several ways, ANCSA has more in common with congressional enactments of the allotment and termination eras than it does with the current era of self-determination. The fundamental injustice of ANCSA and the continuing struggle of Alaska natives to carry on their traditional cultures in spite of ANCSA are documented in Village Journey, a report commissioned by the Inuit Circumpolar Conference in 1983 and published in 1985. See THOMAS R. BERGER, VILLAGE JOURNEY: THE REPORT OF THE ALASKA NATIVE REVIEW COMMISSION (1985); see also Julia A. Bowen, The Option of Preserving a Heritage: The 1987 Amendments to the Alaska Native Claims Settlement Act, 15 AM. INDIAN L. REV. 391 (1991).

125. See, e.g., Berkey, supra note 113, at 87–94.

126. See infra notes 132–40 and accompanying text.
resilient and, in recent decades, have demonstrated that their tribal governments are permanent features in the political landscape of North America.

In recent decades, Congress has responded to tribal aspirations by enacting legislation in support of tribal self-government, including the Indian Self-Determination and Education Assistance Act of 1975. This law provides that tribes have the right to take over programs administered by the Bureau of Indian Affairs (BIA) and the Indian Health Service (IHS) by entering into self-determination contracts. These two federal agencies retain responsibility for those programs that tribes choose not to administer. The BIA also retains responsibility as trustee for lands and natural resources that are held in trust, although tribes are not precluded from taking over BIA programs which relate to trust resources.

Over the last two decades of experience with self-determination contracting, tribal governments have assumed an increasingly predominant role in the delivery of government services in Indian country. Self-determination contracts have provided a measure of stability in the funding of tribal governments.


129. See, e.g., 25 U.S.C. § 450n (1988) (providing that the Indian Self-Determination Act does not authorize or require the termination of the federal trust responsibility “with respect to the Indian people”); 25 U.S.C. § 450f(a)(2)(b) (1988) (specifying that one basis on which the Secretary can decline a tribe’s proposal to contract is the lack of assurances that trust resources will be adequately protected); see also 25 C.F.R. §§ 271.31–.34 (1992) (outlining additional requirements for self-determination contracts that involve trust responsibilities).

130. Some tribes, including one of my firm’s tribal clients, the Miccosukee Tribe of Indians of Florida, began entering into similar contracts in the early 1970s, before the enactment of Pub. L. No. 93-638.

131. See S. REP. No. 274, 100th Cong., 1st Sess. 2 (1987) (noting that many tribes are undertaking their own education, health, and job-training programs, using their own funds along with grants from federal agencies); see also supra note 5 (defining “Indian country”). As a result of tribal initiative and congressional oversight, the Indian Self-Determination Act was substantially amended in 1988. See Pub. L. No. 100-472, 102 Stat. 2285 (1988); S. REP. No. 274, supra, at 1–2; see also Rebecca L. Robbins, Self-Determination and Subordination: The Past, Present, and Future of American Indian Governance, in THE STATE OF NATIVE AMERICA, supra note 61, at 87, 108–09 (recognizing that the federal government yielded significant powers of self-government to native peoples in the late 1980s as a result of political pressures).
“Self-determination” for Indian peoples means something different under the domestic law of the United States than it does under international law because the Indian Self-Determination Act lacks the external component which is implicit in the concept of self-determination under international law. Nevertheless, the Act does help to provide the financial means through which tribal governments exercise a substantial measure of autonomy or internal self-government. If self-determination for indigenous peoples includes the right to make decisions about the use of natural resources within indigenous territories, then the Indian Self-Determination Act has helped tribes in the United States to exercise this right. For example, the Indian Self-Determination Act has helped tribal governments to acquire adequate personnel for their staffs, which enables tribes to control the leasing of tribal lands for agricultural purposes or mineral extraction more effectively. Moreover, the Indian Self-Determination Act has helped to empower Indian tribes in the national political arena. For example, a recent United States Supreme Court decision created a law enforcement void in Indian country by holding that tribes lack criminal jurisdiction over nonmember Indians (that is, Indians who are not members of the tribe on whose reservation a crime is alleged to have been committed). Tribal officials took the lead in making the case to Congress for legislation reversing the Supreme Court and reinstating tribal jurisdiction. The existence of tribal police departments

132. See supra notes 85–90, 127 and accompanying text.
134. COHEN, supra note 5, at 546–47.
136. Duro v. Reina, 495 U.S. 676, 684–88 (1990) (holding that an Indian tribe may not assert criminal jurisdiction over a nonmember Indian because the power to prosecute an outsider would be inconsistent with its dependent status and could come only from a delegation by Congress).
and court systems, most of which rely on self-determination contracts for a substantial part of their operating budgets, was one factor in the congressional decision to reinstate tribal jurisdiction.139

Federal policies toward Indian tribes during the "self-determination" era have not been limited to acts of Congress that are specifically directed towards Indians. Rather, a new federalism has emerged in which many federal agencies administer programs in ways that recognize the separate sovereign status of tribal governments.140 In one area in particular—environmental protection—recent changes in federal law provide a model for indigenous autonomy that is promising for indigenous peoples throughout the world.

1. Environmental Protection in Indian Country—Federal environmental law in the United States has evolved as a partnership between the federal government and the states. Federal statutes provide an overall framework, but state governments assume much of the responsibility for establishing regulatory programs, setting standards, issuing permits, and taking enforcement action. In the last decade, several major federal environmental laws have been amended to authorize the Environmental Protection Agency (EPA) to treat Indian tribes as states for certain purposes. These laws include the Safe Drinking Water Act (SDWA),141 the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as Superfund),142 the Clean Water Act (CWA),143 and the Clean Air Act (CAA).144 The implementation of these amendments will require long-term commitments on the part of both the EPA and those tribes that choose to be treated as states.145

139. See S. REP. No. 153, supra note 137, at 4, 7.
140. For example, the Departments of Housing and Urban Development, Education, Energy, Labor, Commerce, and Justice all have become involved in administering services for Indians. See COHEN, supra note 5, at 673-738; see also Pyramid Lake Paiute Tribe v. United States Dep't of the Navy, 898 F.2d 1410, 1420 (9th Cir. 1990) (noting that trust responsibility "extend[s] to any federal government action").
145. In addition, Congress has created the Administration for Indians in the Department of Health and Human Services to provide grants to tribes to help them build their capacities for administering environmental regulatory programs. See Indian Regulatory Enhancement Act of 1990, Pub. L. No. 101-408, § 2, 104 Stat. 883 (amending § 803 of the Native American Programs Act of 1974, 42 U.S.C. § 2991b (1974)).
The policy to treat Indian tribes as states under these laws is premised on the principle of inherent tribal sovereignty. As the EPA has explained in regulations implementing the amendments to the Clean Water Act, the federal statute does not constitute a delegation of authority from Congress to the tribes. Rather, tribes must have their own authority to carry out environmental regulatory programs. In light of the fact that many Indian reservations include substantial areas of non-trust lands, the EPA specifically addressed the issue of whether tribes have the authority to regulate water quality on non-trust lands within reservation boundaries as an aspect of inherent sovereignty. The EPA concluded that tribes generally do have such authority.

Tribal governments' efforts to regulate non-Indians within reservation boundaries often encounter resistance. Nevertheless, federal courts have upheld such efforts in cases in which important tribal interests are at stake. In the environmental protection context, the federal statutes and implementing regulations have set the stage for tribal authority to continue to withstand challenge.

It is too soon to tell how well this approach will work. There may need to be a different model for tribes that either do not

148. See, e.g., Brendale v. Confederated Tribes and Bands of Yakima Indian Nation, 492 U.S. 408, 438–47 (1989) (holding that inherent tribal sovereignty includes the authority to enact a zoning law covering non-Indian lands in the so-called "closed" portion of a reservation but not in the so-called "open" portion); Montana v. United States, 450 U.S. 544, 557–67 (1981) (holding that, under the facts of the case, inherent tribal sovereignty does not include the authority to regulate duck hunting and sport fishing by non-Indians on non-Indian lands).
149. See, e.g., Washington v. Confederated Tribes of the Colville Indian Reservation, 447 U.S. 134, 152–53 (1980) (upholding tribal authority to tax non-Indian businesses as a fundamental aspect of sovereignty which tribes retain unless divested of it by federal law or by necessary implication of their dependent status).
150. For example, in regulations promulgated by the EPA for treatment of tribes as states for the Water Quality Standards program under § 303 of the Clean Water Act, 33 U.S.C. § 1313 (1992), the EPA has taken the position that tribes generally have the authority to regulate water quality within their reservations. This includes the authority to regulate the activities of non-Indians on fee lands, although each tribe that applies for treatment as a state for this program is required to make an affirmative showing that it has sufficient authority. 56 Fed. Reg. 64,878–81 (1991) (to be codified at 40 C.F.R. pt. 131). The EPA's interpretation should be entitled to substantial weight in the event that the regulatory authority of a tribe is challenged because it is the interpretation by the agency charged with implementing the statutory provision. Arkansas v. Oklahoma, 112 S. Ct. 1046, 1060 (1992) (noting that "the EPA's interpretation of the governing law [must be afforded] an appropriate level of deference").
choose to be treated as states or choose to assume less than the full range of responsibilities that states typically perform. Assuming that treatment as states will work for a substantial number of tribes, successful environmental regulatory programs being carried out by tribal governments could prove to be invaluable examples for indigenous peoples in other countries, especially those who also must contend with the presence of nonindigenous people within their territories.

2. **Historic Places and Cultural Preservation**—Protecting the environment is important to Indian tribes for a number of reasons, not the least of which are tribal aspirations to be autonomous and to have tribal authority respected by federal and state government agencies. A more fundamental reason is that tribal cultures and religions are closely tied to the natural world. Thus, preserving the environment is a prerequisite if tribal cultures and tribal ways of using the environment are to survive.

In the United States, the federal government has established a program of financial assistance to Indian tribes expressly for "the preservation of their cultural heritage." Because the draft declaration provides that states are to provide assistance to indigenous peoples to pursue their own cultural development, this program could serve as a model for other nations. The grant program is authorized under the National Historic Preservation Act (NHPA) of 1966 and is administered by the National Park Service (NPS).

The NHPA is the basic charter for our national historic preservation program. Pursuant to the NHPA, the Secretary of the Interior, through the NPS, has established the National Register of Historic Places and administers a grant program to states which provides recurrent funding to support State Historic Preservation Officers (SHPOs). The NHPA also established an independent agency, the Advisory Council for Historic Preservation, which is charged under section 106 of

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151. See supra note 11 and accompanying text.
the NHPA$^{158}$ with reviewing and commenting on proposed federal actions that might affect properties that are listed on or eligible for the National Register of Historic Places. Properties that are important to tribes for religious or cultural reasons may be eligible for the National Register.$^{159}$ The Advisory Council's implementing regulations assign the SHPOs a substantial measure of responsibility for carrying out the section 106 process,$^{160}$ which is an environmental review and consultation requirement that must be taken into consideration in the preparation of environmental impact statements pursuant to the National Environmental Policy Act (NEPA).$^{161}$ Thus, as tribal governments become more involved in the NHPA, they are likely to enhance their influence when they participate in the NEPA process as well.

Until recently, Indian tribes have virtually been excluded from our national historic preservation program. The NHPA as originally enacted made no mention whatsoever of Indian tribes, despite their sovereign status and legitimate concern for the subject matter. This oversight is not surprising, however, given that the NHPA was enacted in the waning years of the "termination" era in federal Indian policy. But, in the 1980 amendments to the NHPA, Congress added Indian tribes to the list of entities that are to be included in the federally proclaimed partnership for carrying out our national program$^{162}$ and authorized the Secretary of the Interior to make grants to tribes.$^{163}$ It was not until fiscal year 1990, however, that Congress appropriated funds, and the Secretary, acting through the NPS, finally started making these grants to tribes.$^{164}$

159. See NATIONAL PARK SERV., DEPT OF THE INTERIOR, NATIONAL REGISTER BULLETIN NO. 38, GUIDELINES FOR EVALUATING AND DOCUMENTING CULTURAL PROPERTIES (hereinafter NATIONAL REGISTER BULLETIN NO. 38).
161. 42 U.S.C. §§ 4321-4347 (1988). The requirement under NEPA that an environmental impact statement must address other environmental review and consultation requirements is specified in 40 C.F.R. § 1502.25(a) (1992), and the NHPA is specifically included as an example of such a requirement. See generally Dean B. Suagee, The Application of the National Environmental Policy Act to "Development" in Indian Country, 16 AM. INDIAN L. REV. 377, 405-09 (1991) (discussing environmental review and consultation requirements and how they apply in Indian country).
164. Interior and Related Agencies Appropriations Act, Pub. L. No. 101-121, 103 Stat. 701, 706-07 (1989). In addition, in 1989 the Senate directed the NPS to prepare a report to Congress on "the funding needs for the management, research, interpretation, protection, and development of sites of historical significance on Indian lands." S. REP.
In 1992, Congress enacted amendments to the NHPA which provide a mandate for tribal governments to become full partners in the national historic preservation program. The 1992 amendments direct the Secretary of the Interior to establish a program to assist Indian tribes in preserving historic properties. Each tribe now has the option to assume "all or any part of the functions of a State Historic Preservation Officer... with respect to tribal lands." Tribal historic preservation programs, however, will not limit themselves to replicating the established state historic preservation programs. Rather, it is expected that tribal programs, because they will be defined by local tribal priorities, will exhibit a great deal of variety. As the tribal programs develop, they will revitalize the national and state programs with which they will interact.

a. Preserving Living Cultures—Tribal traditions do have historic significance, and all of today's tribal cultures have deep historical roots in North America. Tribal cultures are dynamic, however, and most have changed in many ways during the generations of contact with non-Indians. Indian people of today are not concerned so much with preserving tribal histories for the general good of the larger society. Rather, Indian people primarily are concerned with the vitality of tribal cultures in today's world. Each tribe has a wellspring of ancestral wisdom derived from the knowledge, experiences, and values of countless

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No. 85, 101st Cong., 1st Sess. 21–22 (1989). In response to this mandate, the NPS consulted with Indian tribes and prepared a report, entitled Keepers of the Treasures, which was submitted to Congress in September 1990. Keepers of the Treasures concludes that "it is time for Indian tribes to be afforded the opportunity to participate fully in the national historic preservation program on terms that respect their cultural values and traditions as well as their status as sovereign nations." Nat'l Park Serv., U.S. Dep't of the Interior, 101st Cong., 2d Sess., Keepers of the Treasures: Protecting Historic Properties and Cultural Traditions on Indian Lands, A Report on Tribal Preservation Funding Needs 181 (1990) (hereinafter Keepers of the Treasures Report); see also Secretary of the Interior, 20th Anniversary Report on the National Historic Preservation Act 34–35 (1986) (including a similar recommendation). One of the recommendations to Congress contained in the report is that the NHPA should be amended "to establish a separate title authorizing programs, policies and procedures for tribal heritage preservation and for financial support as part of the annual appropriations process." Keepers of the Treasures Report, supra, at 177.


166. Id. § 4006 (amending 16 U.S.C. § 470a (1988)).

167. Id. § 4006(a)(2). The term "tribal lands" is defined as "(A) all lands within the exterior boundaries of any Indian reservation; and (B) all dependent Indian communities." Id. § 4019(a)(12) (amending 16 U.S.C. § 470w (1988)).

generations of ancestors, but it is only by carrying on these traditions in the present that future generations will have the same opportunity.

Tribal cultures and tribal religions are in many ways inseparable. Congress recognized this in the American Indian Religious Freedom Act, which declares that "the religious practices of the American Indian (as well as native Alaskan and Hawaiian) are an integral part of their culture, tradition and heritage, such practices forming the basis of Indian identity and value systems." 169 Tribal religions are not static, but they generally include teachings that were given to the people by spiritual beings so long ago that the dominant society might describe those times as mythic rather than historic or prehistoric. 170 These teachings have been transmitted through countless generations in ceremonies and stories that "espouse a triplefold declaration of dependence on the surrounding world: of the individual on the community, of the community on nature, and of nature on the ultimately powerful world of spirit." 171 Because tribal cultures exist in a religious context, Indian people regard the responsibility for preserving cultural heritage as a sacred trust. 172

A holistic approach is the norm for tribal efforts to maintain the integrity of tribal cultures, and most tribes are concerned with a broad range of cultural preservation activities, including efforts to preserve and transmit language and oral tradition, arts and crafts, and traditional uses of plants and land; to maintain and practice traditional religion and culture; to

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171. Christopher Vecsey, Envision Ourselves Darkly, Imagine Ourselves Richly, in THE AMERICAN INDIAN AND THE PROBLEM OF HISTORY, supra note 170, at 120, 125.

172. The term "historic preservation" simply fails to convey the awesomeness of this responsibility. One tribal representative, Ellen Hays of Tlingit/Haida, suggested that we find "a more wonderful word for the keepers of the treasures that we consider to be sacred forever." KEEPERS OF THE TREASURES REPORT, supra note 164, at 14. The NPS decided to use that phrase as the title of its report to Congress, and when Indian people decided to form an organization to be an intertribal counterpart to the National Conference of State Historic Preservation Officers, the new organization decided to call itself "Keepers of the Treasures: Cultural Council of American Indians, Alaska Natives and Native Hawaiians." I am a member of the board of directors.
preserve sacred places; to record and retain oral history; to communicate aspects of tribal culture to others; and to use cultural resources to maintain the integrity of communities and advance social and economic development.173

Most tribes are concerned with all of these things. The programs that tribes have established formally to address these concerns vary in emphasis and approach, reflecting priorities in light of the historical context and current circumstances of each tribe. For instance, for many tribes preserving native languages has served as a unifying theme for cultural heritage programs because language is central to the collective self-identity of a people and tribal cultures have been passed down over the generations through the use of spoken language.174 Some tribes have devoted substantial efforts to regaining custody of the remains of their ancestors, along with funerary and other sacred objects, from museums and other institutions.175 As tribal governments take advantage of the opportunities presented by the 1992 amendments to the NHPA, many tribal cultural preservation programs will become increasingly involved in efforts to protect places that have cultural and religious as well as historic significance.

b. Protecting Sacred Places—Many Indians are intensely concerned with the preservation of sacred places. The history of each and every tribe is a significant part of the history of the American people, and some places that are sacred to Indian people have been listed on the National Register of Historic Places.176 But the primary importance of such places for Indian people is not that they are historic but rather that they are sacred.

174. Id. at 9, 29–32.
175. See Walter R. Echo-Hawk & Roger C. Echo-Hawk, Repatriation, Reburial, and Religious Rights, in HANDBOOK OF AMERICAN INDIAN RELIGIOUS FREEDOM, supra note 18, at 63 (discussing museums' treatment of Indian remains and one tribe's efforts to repatriate and rebury their tribal ancestors); see also Walter R. Echo-Hawk, Museum Rights v. Indian Rights: Guidelines for Assessing Competing Legal Interests in Native Cultural Resources, 14 N.Y.U. REV. L. & SOC. CHANGE 437 (1986) (examining the legal history of the relationship between museums and Native Americans); KEEPERS OF THE TREASURES REPORT, supra note 164, at 41–51 (describing the cultural importance of human remains to Indian tribes and the resulting concerns with vandalism, development, and archaeological research). Congress established a mandate for the return of such human remains and other materials by enacting the Native American Graves Protection and Repatriation Act of 1990. See 25 U.S.C. §§ 3001–3013 (1990).
176. For example, there are the Tahquitz Canyon in southern California and the Rio Grande sand bars in New Mexico. KEEPERS OF THE TREASURES REPORT, supra note 164, at 80, 83; see also NATIONAL REGISTER BULLETIN No. 38, supra note 159, at 20 (mentioning that properties representing cultural foundations of Native Americans have been included in the National Register of Historic Places.)
Tribal concerns for sacred places are not limited to the lands that currently are treated as Indian country. Many Indian tribes were removed forcibly from their aboriginal homelands, and most tribes that have retained reservations within their aboriginal territories have had their landholdings reduced to a fraction of what they once were.\textsuperscript{177} As a consequence, many of the properties that have religious and cultural significance for the tribes are beyond the reach of their tribal territorial jurisdiction.\textsuperscript{178} Federal agencies and the SHPOs can play important roles in helping tribes protect such properties.\textsuperscript{179} Pursuant to the 1992 amendments to the NHPA, each federal agency now has a statutory mandate which states that, in carrying out its responsibilities under section 106 of the NHPA, the agency must "consult with any Indian tribe or native Hawaiian organization that attaches religious and cultural significance" to a National Register eligible property that may be affected by a federal undertaking.\textsuperscript{180}

Section 106 of the NHPA is, of course, only a consultation requirement and accordingly has no real teeth. One case in which the section 106 process was used to force a federal agency to consider the impacts of its actions on an area held sacred by three tribes resulted in a United States Supreme Court decision, \textit{Lyng v. Northwest Indian Cemetery Protective Ass'n}.\textsuperscript{181} \textit{Lyng} held that the First Amendment right to freedom of religion of Indian peoples whose religions require ceremonies to be performed at sacred lands owned by the federal government does not divest the government of its right to use its land as it wishes.\textsuperscript{182} In a

\begin{itemize}
\item \textsuperscript{177} See generally \textsc{Cohen}, supra note 5, at 78–105, 136–38.
\item \textsuperscript{178} \textsc{Keepers of the Treasures Report}, supra note 164, at 18–22.
\item \textsuperscript{179} See \textsc{National Register Bulletin No. 38}, supra note 159, at 2–9, 20; see also 16 U.S.C. §§ 470aa–470mm (1988) (codifying the Archaeological Resources Protection Act of 1979 (ARPA) which was enacted in part to protect archaeological resources and sites on Indian lands); 18 C.F.R. pt. 1312 (1992) (implementing provisions of the ARPA in regulations governing the Tennessee Valley Authority); 32 C.F.R. pt. 229 (1991) (implementing provisions of the ARPA in regulations governing the Department of Defense); 36 C.F.R. pt. 296 (1991) (implementing provisions of the ARPA in regulations governing the Forest Service); 43 C.F.R. pt. 7 (1991) (codifying the uniform regulations implementing ARPA). ARPA provides that federal land managing agencies must give notice to an Indian tribe prior to issuing a permit to conduct archaeological work at a site that has religious or cultural importance for the tribe. See 16 U.S.C. § 470cc(c) (1988). The uniform regulations require that federal land managing agencies initiate communication with tribes having aboriginal or historic ties to lands under federal agency jurisdiction so that they will have sufficient information to enable them to comply with the notice requirement. See 18 C.F.R. § 1312.7(b) (1992); 32 C.F.R. § 229.7(b) (1991); 36 C.F.R. § 296.7(b) (1991); 43 C.F.R. § 7.7(b) (1991).
\item \textsuperscript{181} 485 U.S. 439 (1988).
\item \textsuperscript{182} Id. at 453.
\end{itemize}
dissenting opinion, Justice Brennan described the Court's result as "cruelly surreal," noting that even though the majority opinion accepted the premise that the challenged government action would "virtually destroy" the tribal religion, the Court nevertheless held that the government action was not a "burden" on religion.\footnote{183} In \textit{Lyng}, the section 106 process was used to produce the record which supported the Indians' religious freedom claim.\footnote{184}

In response to the \textit{Lyng} decision, a broad coalition of tribes and Indian organizations has been working for comprehensive amendments to the American Indian Religious Freedom Act (AIRFA)\footnote{185} which would establish statutory rights comparable to the constitutional rights that other citizens enjoy.\footnote{186} As a matter of public policy, we simply must realize that it is in the public interest for Indians to have access to public lands to "pray for the planet or for other people and other forms of life in the manner required by their religion."\footnote{187} In a country that prides itself on its tradition of religious freedom, the people who are involved in the administration of our national historic preservation program simply must learn to respect the religious freedom of American Indians, Alaska natives, and native Hawaiians. For Indian and native peoples, the American tradition of religious freedom has been a cruel hoax. If the tribes perceive that the federal and state historic preservation officials do not respect tribal religious beliefs, the tribes are not likely to want to be full partners in the national program.

\section*{C. The Permanence of Tribal Governments}

The dominant American society generally is not well informed regarding the true histories of Indian peoples. Rather, the popular culture of the American frontier deals with Indians with

\begin{itemize}
\item \footnote{183} Id. at 472 (Brennan, J., dissenting).
\item \footnote{184} Id. at 454 (majority opinion).
\item \footnote{186} Religious Freedom Coalition Expands Membership: Introduction of AIRFA Bill Planned in 1993, \textit{INDIAN AFF.} (Assoc. on Am. Indian Affairs), Fall 1992, at 1 and addition.
\item \footnote{187} Vine Deloria, Jr., \textit{Sacred Lands and Religious Freedom}, NATIVE AM. RTS. FUND LEGAL REV., Summer 1991, at 2-3; see also Vine Deloria, Jr., \textit{Trouble in High Places: Erosion of American Indian Rights to Religious Freedom in the United States}, in \textit{THE STATE OF NATIVE AMERICA}, supra note 61, at 267, 286 (discussing the background of the \textit{Lyng} case, analyzing the Supreme Court's reasoning, and suggesting that what is required in the aftermath of \textit{Lyng} is a "modernization of the old diplomatic treaty relationship between Washington and the various Indian nations").}
\end{itemize}
varying degrees of authenticity, and those images and stereotypes of Indians are part of the American consciousness. Over the centuries of contact with Euro-Americans, tribal cultures have changed in response to governmental policies, environmental changes caused by governmental policies, and a variety of other factors. Some degree of awareness of the history of federal Indian policies is necessary to appreciate the range of cultural preservation issues that Indian communities face and to appreciate Indian perspectives on American history.

Knowledge of this historical context is also needed if the United States government or the American people or both are to become forces for securing the human rights of indigenous peoples throughout the world. Two important lessons from the United States' experience that should be shared with the rest of the world are that (1) policies of forced assimilation, such as the policies of the allotment and termination eras, have yielded disastrous results; and (2) policies that support tribal self-government can work, especially when they include the basic legal principle that tribes possess inherent sovereignty. After more than two hundred years of relations with both federal and state governments, Indian tribal governments have earned the right to be treated as permanent features in the American political landscape.

In an era when many national governments treat indigenous peoples as obstacles to progress and development, a country that considers itself a leader in the international human rights movement should be able to acknowledge its history. We in the United States should be willing to tell the rest of the world not to repeat our mistakes. We also should work to improve our model of indigenous self-government, and we should share information about our successes with the rest of the world. Indigenous peoples need for some states to serve as examples in respecting and protecting the human rights of indigenous peoples. But, as discussed in the next part, respect for the human rights of indigenous peoples is not enough. Indigenous peoples also need the states of the world to adopt models of development that do not cause the destruction of the ecosystems on which the cultures of indigenous peoples depend.

188. See Michael Dorris, Indians on the Shelf, in THE AMERICAN INDIAN AND THE PROBLEM OF HISTORY, supra note 170, at 98–100 (discussing stereotypical images of Indians recognized in America and worldwide).

189. See KEEPERS OF THE TREASURES REPORT, supra note 164, at 18–32.

190. See generally Vine Deloria, Jr., Revision and Reversion, in THE AMERICAN INDIAN AND THE PROBLEM OF HISTORY, supra note 170, at 84.
III. THE IMPERATIVE FOR SUSTAINABLE DEVELOPMENT

In this part of the Article, I offer a brief review of the pursuit of economic growth and economic development by the states of the world in the latter half of this century, including the emerging consensus that development must be "sustainable" and the lack of consensus on just what the word "sustainable" means. I then briefly review the evidence which indicates that (in the context of energy development at least) to be sustainable, energy development requires a worldwide shift from technologies that consume fossil fuels to technologies that derive useful energy from the sun and from natural forces and processes that are driven by solar energy. The evidence suggests that we really have no choice; rather, the issue is how much global climate change we are willing to accept before we commit ourselves to achieving this transition. The concluding section of this part discusses some of the ways in which conventional energy development already has devastated and continues to threaten indigenous peoples. My point is that by delaying the commitment to bring about the transition to the solar age, we accept not only the global climate change that will accompany delay but also the cultural genocide of some of the world's remaining indigenous peoples.

A. The Pursuit of Economic Growth and Development

Economists have reached a fairly broad consensus that there are three main factors that contribute to economic growth: (1) capital accumulation including investments in land, physical equipment, and human resources; (2) growth in the labor force; and (3) technological progress. Economists and politicians have devised a variety of recipes for combining these ingredients to bake an economic pie that keeps getting bigger and bigger. While they engage in debates over whose recipe will produce the biggest pie, at least until recently their common assumption that the pie must continue to get bigger for economic growth to occur generally has escaped scrutiny.

In the United States and in most European countries, economic
growth and industrialization have proceeded in tandem
throughout much of this century.\textsuperscript{192} The accompanying
demographic trends have shown shifts in population from rural
areas to urban centers, where personal income from manufac-
turing and other employment opportunities allowed for increased
acquisition of material goods.\textsuperscript{193} These population shifts have
been accompanied by the increased mechanization of agriculture
and by the breakdown of social organization in rural commu-
nities.\textsuperscript{194} Although the United States and some other industrial-
ized countries now sometimes are referred to as postindustrial
economies, the ways in which the First World countries have
pursued economic growth continue to have strong influences on
the economic policies of Third World countries.\textsuperscript{195}

While industrialization has been proceeding, the community
of nations has pursued a political agenda of decolonization.\textsuperscript{196} Decolonization has occurred at different paces in various parts
of the world. Most Latin American countries achieved political
independence well before the African nations.\textsuperscript{197} With the estab-
lishment of the United Nations at the end of World War II, the
legal principle that "all peoples have the right of self-determination"
was enshrined into international law.\textsuperscript{198} Former colonies became
newly recognized independent countries and now comprise most
of the community of nations collectively known as the "Third World"
or the "less developed countries" (LDCs).\textsuperscript{199}

\textsuperscript{192} DALY \& COBB, supra note 10, at 3.
\textsuperscript{193} See generally TODARO, supra note 191, at 247–322.
\textsuperscript{194} Id.
\textsuperscript{195} The term "Third World" commonly is used to refer to "developing countries" or
"less developed countries" that have market economies, as distinguished from the
industrialized countries with market economies—the "First World"—and the East
European socialist countries—the "Second World." See id. at 21–22. The collapse of the
Soviet Union and the socialist economies of eastern Europe obviously renders this three-
way division less meaningful than it once was, but the term "Third World" likely will
continue to be widely used.
\textsuperscript{196} See supra notes 52–57 and accompanying text.
\textsuperscript{197} TODARO, supra note 191, at 24–25.
\textsuperscript{198} See supra notes 53–54 and accompanying text.
\textsuperscript{199} TODARO, supra note 191, at 24–25. The words "developing," "less developed,"
and "underdeveloped" are commonly used as synonyms, although distinctions can be
drawn. Id. at 44. In this Article, I have chosen to use the term "less developed countries"
(or LDCs) because, in my view, much of what has passed for "development" has been
both environmentally and culturally destructive. To my mind, the term "less developed"
has a positive connotation in that it suggests the possibility that mistakes may yet be
avoided. Whatever terms one chooses to use, the LDCs (including China) account for
more than three-fourths of the world's population. Id. at 3. The countries that comprise
the LDCs are quite diverse, and various subgroupings can be drawn. For example, the
Since the middle of this century, political leaders and economists from the First and Third Worlds alike have joined in the pursuit of economic growth. Conventional wisdom says that some degree of industrialization is a prerequisite to realizing the benefits of economic growth. As former colonies have become independent states, however, they generally have lacked much of the economic infrastructure of the former colonial powers. Recognizing that many of the assumptions used by First World economists simply do not apply to Third World economies, various alternative visions of economic development have been promulgated in efforts to replicate the industrialization and economic growth that has occurred in the First World. While there are competing schools of thought about how to achieve “development” in the Third World, political leaders and economists in the Third World and the First World alike regard First World-style economic growth as a long-term goal.

One way that LDCs have pursued economic growth is through the implementation of development projects. Multilateral development banks such as the International Bank for Reconstruction and Development, better known as the World Bank, have provided much of the financing for these development projects. It is an autonomous, intergovernmental corporation, with all of its capital stock owned by member states. The World Bank, see discussion infra at notes 207–11 and accompanying text, classifies economies as low-income, middle-income, or upper-middle-income based on GNP per capita. For some purposes, it also uses separate overlapping categories for fuel exporting countries and for severely indebted countries. WORLD DEVELOPMENT REPORT 1992, supra note 24, at xi–xii. Other terms that sometimes are used are “newly industrialized countries” (NICs) and “least-developed countries” (or LLDCs), the latter of which are sometimes referred to as the “Fourth World.” TODARO, supra note 191, at 22, 44.

200. TODARO, supra note 191, at 107.
201. See infra notes 205–06 and accompanying text.
202. TODARO, supra note 191, at 22.
203. Id. at 12–14.
204. Id. at 67–83.
205. See TODARO, supra note 191, at 62–80 (describing three major theories of economic development); Suagee, supra note 161, at 432–37.
Bank is backed by capital contributions from member governments, and it uses this backing to raise money in international financial markets.\(^{209}\) The multilateral development banks generally provide assistance in the form of loans to national governments, which borrower countries are obligated to pay back.\(^ {210}\) In addition to providing the money, the World Bank also has helped devise much of the theoretical underpinnings for "development," as well as the methodology for evaluating proposed development projects and determining which projects are credit-worthy.\(^ {211}\)

**B. Destruction Under the Guise of Development**

During the last decade, as grass-roots movements and international environmental and human rights organizations have become increasingly effective in challenging development projects, critics of the multilateral development banks have become increasingly vocal. In the words of one critic, "the four principal biological foundations of the global economy—forests, croplands, grasslands, and fisheries—are threatened by unsustainable exploitation and by outright destruction," in part as a result of economic activities supported by the multilateral development banks.\(^ {212}\) The World Bank itself has acknowledged some of its mistakes, such as the fact that many of its projects have had devastating effects on indigenous peoples,\(^ {213}\) and has taken steps

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\(^{212}\) Goodland, *supra* note 207, at 681.

\(^{213}\) See generally *WARREN C. BAUM & STOKES M. TOLBERT, INVESTING IN DEVELOPMENT: LESSONS OF WORLD BANK EXPERIENCE* (1985).
to improve its performance with respect to the environment. For example, it has established an environment department within its bureaucracy\(^{214}\) and created the Global Environmental Facility to assist projects that support environmental protection.\(^{215}\) Pressure from the United States Congress contributed to some of the progress at the Bank.\(^{216}\)

Despite the recent evidence of progress within the World Bank, it and other multilateral development banks continue to be major sources of financing for environmentally destructive projects throughout the Third World.\(^{217}\) There are many reasons why the World Bank has been slow to mend its ways. One major reason is that some very large and very destructive projects have been working their way through the World Bank's financing pipeline for many years, and they have developed a momentum that is

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\(^{214}\) See World Bank, The World Bank and the Environment: A Progress Report 2–3 (1991) (hereinafter Progress Report 1991). In addition to the Environment Department, the staff of other departments also are charged with environmental responsibilities. The Bank estimates that "some 270 staff years [or] about 6 percent of total Bank staff time" was devoted to the environment in fiscal 1991. This includes staff time spent in preparing the World Development Report 1992, in which the environment is the main theme. Progress Report 1991, supra, at 2–3; see also Herman Daly, Environmental Economics Dictate Limits to Growth, in Steve Lerner, Earth Summit: Conversations with Architects of an Ecologically Sustainable Future 39, 46–47 (1991) (hereinafter Earth Summit Interviews) (commenting on his role as an environmental economist on the staff of the World Bank).

\(^{215}\) The Global Environmental Facility (GEF) was established by the World Bank in 1991 in conjunction with the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP), to help LDCs contribute to solving global environmental problems, such as reducing global warming, protecting international waters, preserving biological diversity, and preserving the stratospheric ozone layer. Progress Report 1991, supra note 214, at 101.

\(^{216}\) See Rich, supra note 207, at 724–35; see also Brent Blackwelder, The Campaign to Reform the Multilateral Development Banks, in Earth Summit Interviews, supra note 214, at 157, 161 (discussing the executive branch's impact on progress at the Bank); Bruce Rich, Putting Pressure on the World Bank to Make Its Loans Promote Sustainable Development, in Earth Summit Interviews, supra note 214, at 131, 134–38 (recounting efforts of various political actors to influence the World Bank's environmental performance).

\(^{217}\) See Brown et al., supra note 6, at 154–57 (suggesting that although the Bank has become proficient in producing environmental reports and has begun making so-called "freestanding" environmental loans, changes are not yet evident in the Bank's "bread and butter lending for large capital-intensive projects such as road building, dam construction, and irrigation projects making it an accomplice to the pollution of rivers, the burning of rain forests, and the strip-mining of vast areas"); see also Bruce Rich, The Emperor's New Clothes: The World Bank and Environmental Reform, 7 World Pol'y J. 305, 316–27 (1990) (discussing the political and institutional contradictions faced by the World Bank that inhibit its goal of environmental reform).
difficult to stop.218 Such projects also tend to be supported by politicians who have been project promoters for decades. These politicians lend their support without regard to whether communities that would be displaced or otherwise directly affected by projects have even been consulted.219 The new emphasis on environmental considerations has yielded much rhetoric from LDC planners and officials about integrating environmental objectives into development projects, but critics have charged that most of this rhetoric has been mere lip service.220

Another reason for the slow progress is that the process used by the World Bank to decide whether or not to approve a loan for a particular project is closed to the public.221 In addition, although the Bank’s staff conducts detailed analyses of projects, the executive directors who vote on whether to approve such projects typically cannot get detailed information from the staff until two weeks before the decisions are made. Even then, the information that they get is less than complete.222

At a more fundamental level, one might expect the multilateral development banks to continue financing environmentally

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218. See Bradford Morse & Thomas Berger, Sardar Sarovar Report of the Independent Review (1992). This report, commissioned by the World Bank to review a Bank-assisted dam and irrigation megaproject in India, concluded that the Bank’s procedures had not been followed and that information essential for making recommendations to ameliorate social and environmental impacts simply was not available. The Review accordingly recommended that the Bank stop funding the project. See id. at xxiv–xxv. The Bank originally approved the project without a proper appraisal, and the Review said that the involuntary settlement of tribal people caused by the megaproject “offends recognized norms of human rights.” Id. at xiv, xx. In October 1992, the Board of the World Bank voted to continue Bank funding for the megaproject. World Bank, Bank News Release No. 93/S28, Oct. 23, 1992 (copy on file with the University of Michigan Journal of Law Reform).

219. The Sardar Sarovar megaproject is a classic example of decades of support among politicians. Morse & Berger, supra note 218, at 3–7. Baum and Tolbert stress the need for the involvement of local leaders in all phases of project planning and implementation, including autonomy in the use of local resources. See Baum & Tolbert, supra note 211, at 479–84. They also note, however, that some governments reject local involvement “out of a concern that local organizations will become too independent or powerful and may even become targets for or channels of dissidence, especially in remote regions or among minority groups.” See id. at 481; see also Alan B. Durning, Action at the Grassroots: Fighting Poverty and Environmental Decline (Worldwatch Paper No. 88, 1989) (stressing the importance of grass-roots initiatives for the success of sustainable development).


221. See Brown et al., supra note 6, at 155–56 (noting that the Bank is “plagued by a culture of secrecy and arrogance that makes it resistant to reform”); Rich, supra note 207, at 736.

222. See Rich, supra note 217, at 322.
destructive projects simply because much of the economic activities pursued by industrialized countries and LDCs alike are environmentally destructive. As the twentieth century draws to a close, the continued habitability of the Earth is threatened by a variety of global environmental problems, such as deforestation in the tropics and in temperate North America, global warming from combustion of fossil fuels, depletion of stratospheric ozone, pollution of ground water, and loss of topsoil from high input agriculture. These environmental problems result from economic activities that generally are included on the positive side of the national economic accounts of the countries where they are carried out.

The widespread tendency of economists to downplay the severity of global environmental problems results in part from the intellectual framework of the discipline of economics, which is quite different from that of ecology. The Worldwatch Institute explains this difference as follows:

From an economist's perspective, ecological concerns are but a minor subdiscipline of economics—to be "internalized" in economic models and dealt with at the margins of economic planning. But to an ecologist, the economy is a narrow subset of the global ecosystem. Humanity's expanding economic activities cannot be separated from the natural systems and resources from which they ultimately derive, and any activity that undermines the global ecosystem cannot continue indefinitely. Modern societies, even with their technological sophistication, ignore dependence on nature at their own peril.

After two centuries of industrialization in some countries, and some four decades of "economic development" in the Third World, ecosystems all over the Earth are on the verge of collapse. This Article does not attempt to catalogue the scope of global environmental threats, which include problems such as the hole in the ozone layer, increasing atmospheric concentrations of


224. See DALY & COBB, supra note 10, at 64 (noting that most economists "recognize both that the market activity that GNP measures has social costs that it ignores, and that it counts positively market activity devoted to countering these same social costs").

225. BROWN ET AL., supra note 6, at 23.
carbon dioxide and other greenhouse gases, and the cataclysmic loss of biodiversity. As theologian John Cobb and World Bank economist Herman Daly have noted, these are the "wild facts" of the current state of the world, and we no longer can ignore them. Professor Milbrath has said, "Nature has a power of its own that speaks loudly to humans when they abuse it; nature will be our most powerful teacher . . . . Either we learn fast and well, or nature will find some other way to deal with our exuberant growth."  

In sum, political leaders no longer can rely solely on economists for advice on economic policy. Rather, political leaders must learn to acknowledge that our societies depend upon ecosystems and that, over the long term, we cannot achieve development except in ways that are also ecologically sustainable. Those leaders who cannot learn this basic principle must be replaced.

C. The Emerging Vision of "Sustainable Development"

The 1987 publication of the report of the World Commission on Environment and Development (the Commission), entitled *Our Common Future*, may well have been a turning point in the global movement to protect the world’s ecosystems from destructive forms of development. It was this report that placed the concept of sustainable development on the international agenda.

Over a period of three and a half years, the Commission held hearings and public meetings in eight countries on five continents, commissioned seventy-five studies, and received more than nine hundred written submissions and oral testimony from thousands of people. In reviewing the testimony and preparing its final

226. 

227. 
MILBRATH, *supra* note 220, at 335.


229. 
WORLD COMM'N ON ENV'T AND DEV., OUR COMMON FUTURE (1987) (hereinafter OUR COMMON FUTURE). Although the Commission is widely referred to as the "Brundtland Commission" in honor of its chair, Ms. Gro Harlem Brundtland, Prime Minister of Norway, MILBRATH, *supra* note 220, at 321, it was really a "world" commission, with at least half of its 22 commissioners being citizens of LDCs, OUR COMMON FUTURE, *supra*, at 352–56.

230. 
report, the Commission concluded that people all over the world have come to the same realization: we cannot choose between environmental protection and economic development. We must find ways to achieve both or we will achieve neither. The Commission stated this realization as follows:

[M]any present development trends leave increasing numbers of people poor and vulnerable, while at the same time degrading the environment. How can such development serve next century’s world of twice as many people relying on the same environment? This realization broadened our view of development. We came to see it not in its restricted context of economic growth in developing countries. We came to see that a new development path was required, one that sustained human progress not just in a few places for a few years, but for the entire planet into the distant future. Thus “sustainable development” becomes a goal not just for the “developing” nations, but for industrial ones as well.231

The Commission’s report outlined some of the kinds of strategies that can be used to achieve development in sustainable ways, such as low-input agriculture, aquaculture, protection of forests and agroforestry, preservation of ecosystems and biological diversity, energy efficiency and renewable energy systems, and integrated rural development.232 The Commission’s treatment of these strategies was not detailed233 and skirted some of the obviously controversial issues. But the Commission did succeed in placing the concept of “sustainable development” on the international agenda.234

231. OUR COMMON FUTURE, supra note 229, at 4.
The term "sustainable development" means different things to different people, however.\textsuperscript{235} Some analysts have suggested that the Commission was able to introduce the term into the international dialogue precisely because it discussed the concept in rather vague terms, as the unstated implications of the concept were "too radical for consensus at that time."\textsuperscript{236} One of the radical implications of the concept is that, ultimately, "economic growth" is not sustainable for the simple reason that the economic system is a subsystem of a finite and non-growing earth in which humanly created capital cannot always be substituted for natural capital. Thus, the term "sustainable growth," which is widely used as a synonym for "sustainable development," is self-contradictory.\textsuperscript{237} This implication, of course, challenges the deeply held beliefs of economists and political leaders worldwide.

Since the publication of Our Common Future, many people have worked to add specificity to the concept of sustainable development.\textsuperscript{238} Daly and Cobb have stressed the importance of recognizing that capital produced by people cannot always take the place of things that are taken from the natural world,\textsuperscript{239} and

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\textsuperscript{235} See Daly, supra note 214, at 40 (reporting that he had compiled several definitions of "sustainable development" from the academic community which illustrate his view that many economists do not grasp his distinction between sustainable development and economic growth).

\textsuperscript{236} See DALY & COBB, supra note 10, at 75–76. Daly and Cobb suggest that the Commission consciously chose to leave the radical implications of "sustainable development" unstated, leaving it to others to press the issue once the concept had gained international legitimacy. See id. at 76. Milbrath says:

\begin{quote}
The WCED report is a political document oriented toward social learning. In order to be effective, it must work within currently dominant belief structures. Therefore, it could not speak the truth about limits to both population and economic growth. Only when humankind painfully learns that biospheric integrity cannot be maintained while humans refuse to restrict their growth will it be possible for the truth to be heard.
\end{quote}

MILBRATH, supra note 220, at 323.

\textsuperscript{237} DALY & COBB, supra note 10, at 71–72. Daly and Cobb express the hope that the multilateral development banks and agencies will not abandon the concept of sustainable development when they begin to realize its radical implications, but that they will give up the "oxymoron 'sustainable growth.'" See id. at 76.

\textsuperscript{238} See supra notes 234–35; see also ROGER D. STONE, THE NATURE OF DEVELOPMENT: A REPORT FROM THE RURAL TROPICS ON THE QUEST FOR SUSTAINABLE ECONOMIC GROWTH (1992).

\textsuperscript{239} DALY & COBB, supra note 10, at 72–73. Daly and Cobb have drawn a distinction between "weak sustainability" and "strong sustainability"—a project that exhibits strong sustainability keeps both natural capital and humanly created capital intact and accounts...
they have formulated some rules of thumb for development projects using either renewable or nonrenewable resources.\textsuperscript{240}

A number of advocates of sustainable development have argued for an emphasis on concepts such as local self-reliance and bioregionalism, appropriate or intermediate technologies, limits on specialization, and serving the interests of communities rather than either individuals or states.\textsuperscript{241} Some have stressed the link between consumption of resources and environmental degradation, suggesting that, because there may well be fewer jobs in a sustainable economy, we will need to draw a distinction between employment and work and acknowledge the value of work that people do even though it may not be employment.\textsuperscript{242} In Indian and other indigenous territories, this possibility counsels for the maintenance of traditional and other informal economic activities\textsuperscript{243} for fulfilling both subsistence and self-esteem needs.

\textsuperscript{240} Daly, supra note 214, at 40–41; see also MEADOWS ET AL., supra note 6, at 46.

\textsuperscript{241} See generally BROWN ET AL., supra note 6; DALY & COBB, supra note 10; MILBRATH, supra note 220; STONE, supra note 238; WORLDWATCH INST., supra note 233.

\textsuperscript{242} MILBRATH, supra note 220, at 197–217.

\textsuperscript{243} The term “informal sector” is used to describe a variety of economic activities in the urban areas of LDCs in which people are employed but which generally are not included in official employment statistics. See TODARO, supra note 191, at 280–84. People in the informal sector are engaged in a variety of small-scale production and service activities that typically use simple technologies, are labor-intensive, and are individually or family owned. Id. at 280. The urban informal sector absorbs much of the influx of migrants from rural areas in the LDCs, and in many cities in the LDCs accounts for 50% or more of the total employment. Id. at 280–81; see also HERNANDO DO SOTO, THE OTHER PATH: THE INVISIBLE REVOLUTION IN THE THIRD WORLD (1989)(studying informal economic activity in Peru). Some informal activities are legal and some illegal, and many occur in a gray area in which laws and legal institutions are largely irrelevant. Id. at 11–13. On most Indian reservations, formal unemployment rates are quite high. A report published by the U.S. Department of the Interior in 1986 found that the national unemployment rate for Indians living on reservations and looking for work was 39%; that when those who had given up looking for work were added the figure rose to 49%; and that on some reservations these figures are much higher. U.S. DEPT OF THE INTERIOR, REPORT OF THE TASK FORCE ON INDIAN ECONOMIC DEVELOPMENT 48–49 (1986). Yet many of these unemployed Indian people are engaged in a variety of economic activities, such as arts and crafts, home repair, automobile repair, and food service, and the term “informal” can be applied to such activities. See Schuyler Houser, Mending the Circle: Peer Group Lending for Micro-Enterprise Development in Tribal Communities 4 (Dec. 28, 1991) (unpublished manuscript, on file with the University of Michigan Journal of Law Reform). Some informal activities are more or less “traditional” in the sense that they carry on part of a tribe’s traditional material culture, for example, hunting and fishing, subsistence agriculture, gathering wild plants, craft making, and artwork. See Rebecca Adamson, Investing in Indigenous Knowledge, AKWE:KON J., Summer 1992, at 50.
These concepts run counter to the political beliefs and economic doctrines of national political leaders worldwide. Grass-roots political leaders have nevertheless embraced many of these ideas, providing evidence that a paradigm shift in belief systems may be under way.\footnote{244} At the United Nations conference on Environment and Development (the "Earth Summit") in Rio de Janeiro, Brazil, in June 1992, grass-roots leaders and indigenous peoples tried to make national leaders see that these concepts must be part of the concept of sustainable development.\footnote{245} How long it will take for national leaders to understand what sustainable development is all about remains, of course, an open question.

\textbf{D. The Central Importance of Sustainable Energy}

We lack a consensus on what "sustainable development" means, and yet in all sectors of economic activity we need models of development projects that are sustainable. In some sectors there are already a number of models of the kinds of projects that could be sustainable. For example, "alternative" agriculture may be sustainable.\footnote{246} Forests can be managed on a sustained-yield basis, if there is due regard for their non-timber values.\footnote{247} Harvesting a variety of wild products from tropical rain forests also may be sustainable.\footnote{248} A number of

\begin{footnotesize}
\footnote{244. MILBRATH, supra note 220, at 118-28; see also FRITJOF CAPRA, THE TURNING POINT: SCIENCE, SOCIETY AND THE RISING CULTURE (1982).}
\footnote{245. See Paul Lewis, Battle in Rio: The Day After, N.Y. TIMES, June 15, 1992, at A1, A8; The United Nations Conference on the Environment and Development, INDIAN RIGHTS, HUMAN RIGHTS (Indian Law Resource Center, Helena, Mont.), Autumn 1992, at 3; see also Barbara Crossette, What Some Preach in Rio Is Not What They Practice at Home, N.Y. TIMES, June 15, 1992, at A8 (reflecting the view that national government activities are often inconsistent with stated ecological policies and that grass-roots organizations are the most likely vehicles for environmental action).}
\footnote{246. See generally COMMITTEE ON THE ROLE OF ALTERNATIVE FARMING METHODS IN MODERN PROD. AGRIC., NAT'L RESEARCH COUNCIL, ALTERNATIVE AGRICULTURE (1989) (examining a range of alternative, sustainable farming techniques); see also BROWN ET AL., supra note 6, at 83-96; WORLDWATCH INST., supra note 233, at 66-82 (urging abandonment of the existing livestock industry because of the burdens it inflicts on human health and welfare and on the environment).}
\footnote{247. See BROWN ET AL., supra note 6, at 75-77; WORLDWATCH INST., supra note 233, at 23; see also John C. Ryan, Goods from the Woods, WORLD WATCH, July/Aug. 1991, at 19 (discussing the benefits of promoting nontimber tropical forest products but concluding that such projects alone will not halt the destruction of the rain forests).}
\footnote{248. See WORLDWATCH INST., supra note 233, at 7; see also Ryan, supra note 247, at 19.}
\end{footnotesize}
models of sustainability in the development of rural community infrastructures also have been documented in recent years.249 But even though some models exist, many areas are still waiting for similar solutions.

With respect to energy, however, we do know what the key elements of sustainable development must be. We know that the burning of fossil fuels by humans is the leading source of the buildup of carbon dioxide in the Earth's atmosphere, and that carbon dioxide is the most significant "greenhouse" gas in terms of its cumulative contribution to global warming.250 Although the industrialized countries are responsible for most of the carbon dioxide that has been added to the atmosphere since the industrial revolution, the LDCs' share is increasing and can be expected to grow dramatically if their energy policies rely primarily on fossil fuels.251 Thus, if we are to have any hope of stabilizing atmospheric concentrations of carbon dioxide and avoiding the likelihood of global climate change associated with the greenhouse effect, both the industrialized countries and the LDCs need to shift away from fossil fuels.252 This means that development must be energy efficient and that the favored options for producing energy must be solar and other renewable energy technologies.253

There are many other reasons for favoring energy efficiency and solar energy, such as avoiding the adverse environmental


250. See Erik Arrenius & Thomas W. Waltz, The Greenhouse Effect: Implications for Economic Development 3 (World Bank Discussion Paper No. 78, 1990); Meadows et al., supra note 6, at 6, 93–96; Silver & Defries, supra note 223, at 63–67. Although chlorofluorocarbons and methane have a greater greenhouse effect on a per molecule basis, there is much more carbon dioxide in the atmosphere as a result of human activity. Arrenius & Waltz, supra, at 3–4.


252. World Development Report 1992, supra note 24, at 161–63; see also Dennis Anderson, The Energy Industry and Global Warming 9–12 (1992); Worldwatch Inst., supra note 233, at 32–38 (suggesting the use of both nonfossil-fuel alternatives and natural gas, which emits less carbon dioxide than other fossil fuels because it contains less carbon per unit of energy output and because it can be burned more efficiently).

253. In addition to solar technologies for space heating, water heating, and electricity (photovoltaics and thermal), renewable energy technologies include wind power, small-scale water power, and energy from biomass (wood, crops, and other plant matter). See generally Michael Brower, Cool Energy: The Renewable Solution to Global Warming (1990); United Nations, Energy Issues and Options for Developing Countries 125–210 (1989) [hereinafter Energy Issues and Options]; Brown et al., supra note 6, at 190–97; Meadows et al., supra note 6, at 66–78; Worldwatch Inst., supra note 233, at 27.
and socioeconomic effects of conventional energy development, saving money, and improving the energy self-sufficiency of communities and countries. For reasons such as these, a growing number of people around the world have been promoting energy efficiency and solar energy over the last two decades. In my view, such reasons are more than enough to make energy efficiency and solar energy the favored options for communities and countries in the industrialized world and the Third World, but the need to face up to the threat of global warming makes the case for efficiency and solar energy even more compelling. Bringing about the solar age is an imperative.

1. The Vision of Soft Energy Paths—The oil embargo by the Organization of Petroleum Exporting Countries (OPEC) in 1973 and 1974 was the watershed event that spurred widespread interest in solar energy and energy efficiency.\(^{254}\) One of the early formulations of an energy development scenario based on energy efficiency and a variety of solar energy technologies was advanced by Amory Lovins in his 1977 book *Soft Energy Paths*. According to Lovins's formulation, “soft” energy technologies (including energy efficiency and small-scale renewable energy systems) are soft in the sense that they are flexible, resilient, sustainable, and environmentally benign. Lovins contrasts these technologies to conventional or “hard” energy technologies, which are both hard on the environment and hard (impossible) to sustain over the long term.\(^{255}\) Since the OPEC embargo, proponents of energy efficiency and renewable energy technologies have achieved a great deal of technological progress, and energy consumers have put much of this progress to use. For instance, in the United States alone between 1973 and 1985, energy efficiency improved twenty-three percent.\(^{256}\) Lovins and others continue to articulate their visions of the “soft energy” scenario.\(^{257}\) Soft energy technologies provide

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255. Id. at 26–31, 38.
256. BROWN ET AL., supra note 251, at 42. One indicator of the extent to which energy efficiency measures have displaced energy consumption since the oil embargo of 1973 is that in the years since the oil embargo, overall energy consumption has remained almost constant while the economy has expanded by 45%. BROWER, supra note 253, at 12. A study published in 1985 estimated that, as of that date, energy efficiency improvements had contributed to a 50% reduction in imports of foreign oil. H. RICHARD HEEDE ET AL., *THE HIDDEN COSTS OF ENERGY: HOW TAXPayers SUBSIDIZE ENERGY DEVELOPMENT* 21 (1985).
a way to avoid the kinds of environmental damage caused by conventional energy development, such as air and water pollution and acid rain. Accordingly, a number of environmental groups have taken leading roles in promoting and publicizing the soft energy approach.

In the late 1970s, the United States federal government supported energy efficiency and renewable energy development, but in the 1980s the Reagan Administration drastically reduced that support. Furthermore, massive federal subsidies for nuclear power and fossil fuels were maintained or increased during the Reagan years, distorting the marketplace in which soft energy technologies must compete. One federal agency, the Solar Energy and Energy Conservation Bank, demonstrated the economic potential of soft energy and, as its reward, was

258. Renewable energy technologies do cause some adverse environmental impacts, but the impacts are generally of a different order of magnitude than those caused by conventional energy development. See MEADOWS ET AL., supra note 6, at 76–77. Although the nuclear power industry has carried out a public relations campaign for years to try to convince the public that nuclear power is the solution to global warming and dependence on foreign oil, nuclear power cannot make a significant additional contribution to meeting U.S. energy demand for at least ten to fifteen years, because it takes that long to build nuclear plants and bring them on line. No nuclear power plants have been ordered by power companies since 1978. BROWER, supra note 253, at 14–15. In addition, cost, risk, and public opposition have combined to render nuclear power irrelevant to the energy future of the United States. Id. at 14–17; see also ANDERSON, supra note 252, at 16–21 (arguing that operational and environmental problems will limit the extent to which nuclear power can alleviate increased use of fossil fuels in the LDCs). The problem of what to do with nuclear waste, however, will be a long-lasting legacy of our experiment with nuclear power. See WORLDWATCH INST., supra note 233, at 46–65.

259. Support of solar energy and energy efficiency has been long-standing policy for many environmental groups in litigation, legislative advocacy, and educational activities. For example, Friends of the Earth holds the copyright for Amory Lovins’s book Soft Energy Paths. LOVINS, supra note 254, at iv. In 1984, the National Audubon Society published a comprehensive energy plan entitled The Audubon Energy Plan. See Jan Beyea & Frank P. Grad, Opening Note-National Audubon Society, 11 COLUM. J. ENVTL. L. 251, 251 (1986). The Sierra Club has published several books on solar and renewable energy technologies, including Bioshelters, Ocean Arks, City Farming, and More Other Homes and Garbage. JIM LECKIE ET AL., MORE OTHER HOMES AND GARBAGE: DESIGNS FOR SELF-SUFFICIENT LIVING at ii (1981); TODD & TODD, supra note 233, at copyright page.

260. See BROWER, supra note 253, at 75–76; LOVINS & LOVINS, supra note 257, at 293–98.

261. Heede reports that nuclear power received federal subsidies totalling $15.56 billion in fiscal year 1984, while subsidies for fossil fuels (coal, oil, natural gas, and fossil fuel electric power) totalled more than $20 billion. See HEEDE ET AL., supra note 256, at 9–14. Total subsidies for solar and other renewable energy sources (not counting hydropower) amounted to $1.7 billion in fiscal year 1984, while the total subsidies for energy efficiency were $864 million. Id. at 2; see also BROWER, supra note 253, at 76 (citing a study indicating that over 90% of government subsidies in 1984 supported traditional energy technologies as compared to 4% for emerging renewable energy technologies).
effectively abolished. Only one power generation technology, large-scale wind power, managed to achieve substantial commercialization.

In the late 1980s, as people became aware of the problem of global warming, the soft energy approach began to creep back into the public dialogue. Global warming, after all, is largely caused by the emission of carbon dioxide from the combustion of fossil fuels, and the soft energy approach seeks to displace the use of fossil fuels. Although the Bush Administration asserted that measures to limit the emissions of greenhouse gases would adversely affect the United States economy, a substantial body of analytical work shows that such assertions are unfounded.

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262. The Solar Energy and Energy Conservation Bank (Solar Bank) was established by Title V of the Energy Security Act of 1980. See 12 U.S.C. §§ 3601–3620 (1988). The Solar Bank was intended to complement federal policies which promote energy efficiency, and solar energy through tax credits by providing subsidized loans to low- and moderate-income households which generally do not benefit from tax credits. Steven E. Ferry, Solar Banking: Constructing New Solutions to the Urban Energy Crisis, 18 HARV. J. ON LEGIS. 483, 501–08 (1981). The incoming Reagan administration sought to rescind the appropriated funds, and the Solar Bank did not become functional until after the settlement of a lawsuit which charged the administration with improperly impounding funds. See Dabney v. Reagan, 542 F. Supp. 756, 768 (S.D.N.Y. 1982) (ordering the defendants to expedite all Bank implementation activities and to make funds available for disbursement as quickly as good faith discharge of defendants' responsibilities under the Act would permit). In its final annual report to Congress for fiscal year 1987, the Solar Bank reported that it had provided subsidies for investments that would save the equivalent of 121,100 barrels of oil per year (or 2.4 million barrels over the assumed 20-year useful life of each investment) at a cost to the federal treasury of $4.25 per barrel. See SOLAR ENERGY AND ENERGY CONSERVATION BANK, ANNUAL REPORT TO CONGRESS 6 (1987). Over the course of its existence, the Solar Bank disbursed about $80 million to subsidize investment in energy efficiency and solar energy. Id. at 11. It is tempting to speculate how much energy could have been saved if the Solar Bank had been allowed to operate at the $1 billion plus annual level of funding originally authorized. See Solar Energy and Energy Conservation Bank Act, Pub. L. No. 96-294, § 522, 94 Stat. 719, 737 (1980). Saving energy this way means paying workers to reduce the operating costs of low- and moderate-income housing, rather than sending soldiers to the Middle East to defend our access to oil.

263. See BROWER, supra note 253, at 45–52. Large wind-turbine power plants provide about one percent of California's total electricity demand, and the cost per kilowatt-hour (reported to be seven to nine cents) is competitive, or nearly competitive, in most U.S. electricity markets. Id. at 45. Wind power has the potential to meet about 20% of total U.S. electricity demand. Id. However, as a result of the drastic decline in federal support during the Reagan administration, the world market for wind turbine power plants is "increasingly dominated by foreign, particularly Danish, manufacturers." Id. at 46.

264. See supra notes 255–59 and accompanying text.


266. Id. at 70 (noting the Bush Administration's release of an interagency study "that confirmed what green groups, and Reilly's E.P.A. as well, had argued for some time: capping CO₂ emissions at 1990 levels would have little, if any, effect on the American economy"). Several of the references cited earlier in this Article are part of the literature.
Indeed, the economic benefits of soft energy paths compare favorably to those of hard energy paths.\textsuperscript{267} A body of literature based on Third World experiences suggests that soft energy paths also can lead to substantial economic benefits for the LDCs, particularly in rural areas where soft energy paths may be the only viable option.\textsuperscript{268} The literature also suggests that we must reconsider conventional ways of thinking about energy because the institutional frameworks that have been developed for conventional energy technologies are often inappropriate for soft energy technologies.\textsuperscript{269} The time has come for political leaders to realize that soft energy paths are not only the key to dealing with global warming, but are also part of the only viable long-term strategy for economic recovery in the United States and other industrialized countries and for economic development in the Third World.

2. Conventional Energy and Indigenous Peoples—For the dominant societies of the United States and other industrialized and less developed countries, the failure of political leaders to see the sunlight and to embrace the vision of soft energy paths has resulted in missed opportunities. The results for indigenous peoples have been tragic. Mining for nonrenewable energy resources such as coal and uranium has wreaked environmental damage in the homelands of indigenous peoples in the southwest and northern plains in the United States, as well as in northwestern Canada, Australia, and South America.\textsuperscript{270} The adverse

demonstrating that economic well-being does not depend upon consumption of fossil fuels. See, e.g., BROWN ET AL., supra note 6; MEADOWS ET AL., supra note 6; WORLDWATCH INST., supra note 233; see also SOLAR RESEARCH ENERGY INSTITUTE, A NEW PROSPERITY: BUILDING A SUSTAINABLE ENERGY FUTURE (1981).

\textsuperscript{267} See generally CHRISTOPHER FLAVIN & NICHOLAS LENSSSEN, BEYOND THE PETROLEUM AGE: DESIGNING A SOLAR ECONOMY 100 (Worldwatch Paper No. 100, 1990); LOVINS & LOVINS, supra note 257, at 305–09.

\textsuperscript{268} See, e.g., ANDERSON, supra note 252, at 11–12; JOSÉ GOLDEMBERG ET AL., ENERGY FOR DEVELOPMENT 29–44 (1987); GOLDEMBERG ET AL., supra note 257.

\textsuperscript{269} See BAUM & TOLBERT, supra note 211, at 149–52 (noting that decisions on energy investments must take into consideration interrelationships with policies and trends elsewhere in the economy and noting that decentralized, renewable energy systems tend to be more appropriate for meeting the needs of rural communities in the LDCs); see also ENERGY ISSUES AND OPTIONS, supra note 253, at 211–18 (discussing strategies for decentralized rural electrification).

\textsuperscript{270} See GLOBAL QUEST, supra note 17, at 43–50; see also NATIVE AMERICANS AND ENERGY DEVELOPMENT II (Joseph G. Jorgensen ed., 1978) (discussing the effects, past and future, of extraction of energy resources on native lands); Ward Churchill & Winona LaDuke, Native North America: The Political Economy of Radioactive Colonialism, in THE STATE OF NATIVE AMERICA, supra note 61, at 241, 255–62 and references cited therein (showing that the financial profits American Indians have yielded from development of uranium resources have been more than offset by health risks and contamination); Winona
environmental impacts of mining, especially surface mining, affect indigenous peoples in a variety of ways, many of which should be obvious given the cultural and spiritual ties that indigenous peoples have with the land. Impacts of nonrenewable energy development are not limited to mining. Oil extraction in the Amazon, which is accompanied by roads, oil spills, and disease-bearing outsiders, has caused the destruction of some indigenous peoples and threatens to destroy others. Oil and gas exploration and extraction in northern Canada and Alaska have caused damage to wildlife habitats and have opened up areas of the north to "sport hunters" who have recklessly depleted wildlife populations. A number of Alaska native villages suffered devastating impacts from the Exxon Valdez oil spill. Moreover, some indigenous peoples believe that the extraction of petroleum causes harm to the Earth itself and interferes with their duty to protect the Earth.

LaDuke, *Indigenous Environmental Perspectives: A North American Primer*, AKWE:KON J., Summer 1992, at 52. While it contains a substantial amount of information on the extraction of resources from Indian country, the Churchill and LaDuke article also contains misstatements regarding the Indian Reorganization Act of 1934, including the assertion that under that Act "the United States imposed a system of 'tribal council' governments on each reservation" and the assertion that IRA tribal councils are recognized by the federal government "as the sole governing body of Indian reservations." Churchill & LaDuke, supra, at 244. These assertions are simply not true; a substantial number of tribes that are not organized under the IRA are nevertheless recognized as possessing inherent sovereignty. See supra note 109 and accompanying text.

271. See generally JUDITH KIMERLING ET AL., *AMAZON CRUDE* (1991) (describing the catastrophic effects of oil development on the rain forests in Ecuador and on the indigenous peoples who inhabit those forests); see also Robert F. Kennedy, Jr., *Amazon Sabotage*, WASH. POST, Aug. 24, 1992, at A17 (recounting unfortunate cases where American corporations operating in the rain forests have withdrawn from projects subject to pressure from environmentalists, only to be replaced by less conscientious competitors).

272. See BRODY, supra note 18, at 230–37 (documenting that seismic lines and pipeline rights-of-way have opened territory that previously was inaccessible to non-Indian "sport" hunters and that, in one area so opened, non-Indian sport hunters killed four times as many moose in a two-month hunting season as Indian subsistence hunters killed in a whole year); see also Ominayak v. Canada, U.N. GAOR, 45th Sess., Supp. No. 40, Annex IX, at 2–4, U.N. Doc A/45/40 (1990) (documenting the destruction of the Lubicon Lake Band's traditional hunting and trapping economy as a result of oil and gas exploration and extraction).


274. See EREIRA, supra note 18, at 197, 215–16 ("The Earth feels. They take out petrol, it feels pain there."). The Kogi are convinced that the world is growing warmer because the snows on the peaks of their mountains have melted significantly in the last ten years and the tundra has dried out. Id. at 217–19, 223–27. If indeed these effects are caused by global warming, this demonstrates that even though an indigenous people
In the United States, nonrenewable energy resource extraction in Indian country has yielded significant benefits for some tribes, such as substantial revenues for those tribes whose lands hold oil and gas. But these resources have proven to be mixed blessings. Since the early twentieth century, the terms of extraction often have been exploitative, and the monetary rewards are accompanied by cultural disruption. For example, the presence of coal on tribal lands has resulted in deep divisions within some tribes. In the past two decades, however, many tribes engaged in extraction of their resources have succeeded in improving the terms of their deals and in building their regulatory capabilities, partly by working together through the Council of Energy Resource Tribes. Despite some success, tribes have given very little attention to the soft energy approach.

Tribes in the United States, at least today, have the right to decide for themselves whether resources will be extracted from their lands. In much of the world, however, indigenous peoples either lack legal recognition of their territories or national governments claim absolute ownership of subsurface remains isolated and does not allow extraction within its territory, it still can suffer from extraction and consumption of fossil fuels in the outside world. Moreover, the Kogi believe they have a sacred duty to protect the Earth. Id. at 58–61. Because their ability to fulfill their duty is being impaired by activities outside their territory, the Kogi allowed the British Broadcasting System to make a film to carry their message to the outside world. Id. at 112–14, 143–44. Regarding the beliefs of indigenous peoples about responsibility for preserving the natural world, see SUZUKI & KNUTSON, supra note 1, at 195–249.

275. See generally MARJANE AMBLER, BREAKING THE IRON BONDS: INDIAN CONTROL OF ENERGY DEVELOPMENT (1990) (discussing efforts to increase tribal control over energy development); Margaret A. Swimmer, Indian Tribes: Self-Determination Through Effective Management of Natural Resources, 17 TULSA L.J. 507 (1982) (describing the history of mineral development on Indian lands and the enhanced value of these resources given contemporary developments).

276. See S. REP. NO. 216, 101st Cong., 1st Sess 105-29, 140 (1989) (documenting theft of Indian oil and gas resources in recent years and noting that the Secretary of the Interior had advised the Senate of similar problems more than 80 years earlier); Churchill & LaDuke, supra note 270, at 241, 247–62.

277. See, e.g., Lomayaktewa v. Hathaway, 520 F.2d 1324, 1327 (9th Cir. 1975) (holding that 62 dissident traditional Hopis cannot sue to void a lease made by the Hopi Tribe to a coal mining company without joining the Tribe in the lawsuit), cert. denied, 425 U.S. 903 (1976); see also Richard O. Clemmer, Effects of the Energy Economy on Pueblo Peoples, in NATIVE AMERICANS AND ENERGY DEVELOPMENT II, supra note 270, at 79, 84–85.

278. See generally AMBLER, supra note 275.


280. See COHEN, supra note 5, at 531–38.
resources. In these places, governments and transnational corporations scarcely bother to consult with indigenous peoples or, if they do, consultation tends to be based on the premise that the resources will be extracted. Some tribes in the United States face essentially the same situation with respect to resources that are not within official tribal jurisdiction.

Extraction of nonrenewable resources is not the only kind of energy development that inflicts suffering and destruction on indigenous peoples. Large-scale hydroelectric dams have inflicted great damage too. Although dams usually are considered renewable sources of energy because they derive power from the hydrologic cycle, when their scale is such that they cause extensive environmental destruction, they should not be treated as part of the soft energy approach. Indeed, for indigenous peoples, dam projects may be the most devastating kind of energy development. Examples abound. The dams and reservoirs on the upper Missouri River in the United States flooded fertile river bottom lands on five Indian reservations, destroying subsistence agricultural economies and cutting the hearts out of tribal communities. The dams in the Columbia River basin in the Pacific northwest may cause the extinction of several species of salmon, fish that are central to the economies and religions of tribes in that region. Examples are not limited to the United States.

281. See Hannum, supra note 28, at 465–66 (noting that many states assert ownership over all subsoil resources, even where private ownership of land is recognized).

282. One such example is the Gwich‘in Indians in Alaska, whose way of life depends upon the Porcupine Caribou herd which has its calving grounds in what is now the Arctic National Wildlife Refuge. The interests of the Gwich‘in have been raised in the congressional debate over whether or not to allow oil drilling in the Arctic Refuge. See 137 Cong. Rec. S14232 (daily ed. Oct. 2, 1991) (statement of Sen. Wellstone). The Gwich‘in have tried to make Congress see this as a human rights issue. See Arctic National Wildlife Refuge, Part II: Hearings on Several Proposals Before the Subcomm. on Fisheries and Wildlife Conservation and the Environment of the House Comm. on Merchant Marine and Fisheries, 102d Cong., 1st Sess. 29 (1991) (statement of Sarah James, Chairperson, Gwich‘in Steering Committee) ("This is not just an environmental issue . . . . It is about survival of an ancient culture that depends on the caribou. It is about our basic tribal and human rights to continue our way of life."). The record of the debate in the First Session of the 102nd Congress indicates substantial concern for the interests of the Gwich‘in. See 137 Cong. Rec. S14232 (daily ed. Oct 2, 1991).


284. See Peter Korn, The Salmon’s Last Run, Amicus J., Fall 1991, at 30, 31. Indian off-reservation treaty rights to fish have been upheld by the Supreme Court. See Washington v. Washington State Commercial Passenger Fishing Vessel Ass’n, 443 U.S. 658, 674–85 (1979). Obviously, these rights will be worth very little if the salmon become extinct.
Hydroelectric megaprojects currently threaten indigenous peoples in many parts of the world. In some cases, indigenous peoples and their supporters have mounted international campaigns to stop such projects. For example, Kayapo Indian leaders and their allies succeeded in persuading the World Bank to withdraw its support for a series of dams on the Xingu River in the Brazilian Amazon.

3. A True Story: James Bay II and the Crees of Quebec—Another current example, the James Bay hydroelectric project in Northern Quebec, demonstrates that aggressively promoting soft energy paths in the United States can be a key component of a realistic strategy to stop such megaprojects. In the 1970s, the province of Quebec and its government-owned electric power authority, Hydro-Quebec, constructed Phase I of the James Bay project. Construction proceeded over the opposition of the Crees of Quebec, who continue to carry on their ancient subsistence economy based on hunting, fishing, and trapping. Although the Crees were not able to stop Phase I, their resistance did result in the execution of the James Bay and Northern Quebec Agreement in 1975, which the Crees understood to give them a substantial role in determining the course of further development in their traditional homeland. Phase I, also known as the La Grande Project, is

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285. *See generally* GLOBAL QUEST, *supra* note 17, at 50–58. Most of the people now living in the area to be submerged by the Sardar Sarovar megaproject are tribal people. MORSE & BERGER, *supra* note 218, at xii.

286. BARBARA J. CUMMINGS, DAM THE RIVER, DAMN THE PEOPLE: DEVELOPMENT AND RESISTANCE IN AMAZONIAN BRAZIL (1990); *see also* Terry Turner, *The World Struggle to Save James Bay*, NORTHEAST INDIAN Q., Winter 1991, at 55, 55–57 (describing how Kayapo leaders learned the details of the Brazilian government's plans to dam the Xingu River by going to the World Bank in Washington, D.C., and how they organized an international meeting at the site where the first of the proposed dams was to be built, resulting in the World Bank's decision not to provide the loan).

287. The discussion of the James Bay project in the following paragraphs draws on my experience as a member of an international task force organized by the Grand Council of Crees of Quebec, the Sierra Club, and other organizations to stop James Bay II.

288. *See* SEAN MCCUTCHEON, ELECTRIC RIVERS: THE STORY OF THE JAMES BAY PROJECT 29–61 (1991); *see also* André Picard, *James Bay II*, AMICUS J., Fall 1990, at 10, 10–16 (describing the devastating effect that the expansive James Bay hydroelectric development has had on Cree culture).

289. The agreement was signed on November 11, 1975, by the Cree, the Inuit, the governments of Quebec and Canada, Hydro-Quebec, and others. The Agreement was ratified by both federal legislation, *see* James Bay and Northern Quebec Native Claims Settlement Act, ch. 32, 1976–77 S.C. 879 (Can.), and provincial legislation, *see* An Act Approving the Agreement Concerning James Bay and Northern Quebec, ch. 46, 1976 S.Q. 267 (Que.).

a complex of dams, reservoirs, and diversion structures through which several major rivers are diverted into the La Grande River, which flows into James Bay.\textsuperscript{291} By drastically changing the wildlife habitat and destroying much of the riparian habitat, Phase I has devastated the Cree communities of that region.\textsuperscript{292} Communities that have lost most of their hunting territories now depend on food from the south, and with the loss of the resource base that supports their way of life, the people of these communities are unable to carry on their culture and religion and to transmit them to their children.\textsuperscript{293}

An additional impact that has received some international attention is the mercury contamination of fish caused by the reservoirs.\textsuperscript{294} For the Crees of Quebec, fish provide the primary source of food for several months of each year.\textsuperscript{295} Now that the fish are contaminated, the people have been deprived of this source of subsistence, and a substantial number of people in the affected communities have high levels of mercury in their bodies and show symptoms of mercury poisoning.\textsuperscript{296} Arguably, this impact in itself violates the first article common to the two International Human Rights Covenants and, if done with specific intent, would violate the Genocide Convention.\textsuperscript{297}

291. The four rivers diverted by the La Grande Project are the Eastmain, the Opinaca, the Little Opinaca, and the Caniapiscau, the last of which formerly flowed northeast into Ungava Bay. Jean-François Rougerie, James Bay Development Project, 3 CANADIAN WATER WATCH 56, 56 (1990). Reports of the aggregate area of the reservoirs created by the La Grande Project vary. Compare MCCUTCHEON, supra note 288, at 3 (giving a figure of 10,000 km\(^2\)) with Rougerie, supra, at 56 (giving a figure of 11,335 km\(^2\)). Sources state that when the La Grande Project is completed in the mid-1990s, it will have an installed generating capacity of over 14,000 megawatts. See, e.g., MCCUTCHEON, supra note 288, at 4.


295. MCCUTCHEON, supra note 288, at 110 (noting that fish accounted for one-quarter of the total food consumption for the Crees of the village of Chisasibi on the La Grande River); see also David Masty, Sr., Traditional Use of Fish and Other Resources of the Great Whale River Region, NORTHEAST INDIAN Q., Winter 1991, at 12, 13–14 (stating that fish is still the Crees’ staple diet and describing their many uses for fish parts).

296. MCCUTCHEON, supra note 288, at 110 (noting that in 1984, two-thirds of Chisasibi Crees had concentrations of mercury in their bodies higher than the maximum level considered acceptable); Picard, supra note 288, at 12–13.

297. Depriving the Crees of their means of subsistence violates the common first article of the Human Rights Covenants. See supra notes 46–47, 54. If done with specific intent, inflicting serious bodily harm to the Crees through mercury poisoning would violate the Genocide Convention. See supra note 101 and accompanying text. In my view, if Hydro-Quebec
Such are the impacts of James Bay Phase I. Phase II of the James Bay project would consist of two complexes of dams, reservoirs, and diversion structures, one complex to the north of the La Grande Project, the Great Whale Project, and one complex to the south, the Nottaway-Broadback-Rupert Project. Great Whale, which Hydro-Quebec plans to build first, would add about 3000 megawatts to Hydro-Quebec's generating capacity, more than half of which would be for export to the United States, including a block of 1000 megawatts for a contract with the New York Power Authority.

In the region of the Great Whale River, the traditional homeland of the Crees overlaps with the traditional homeland of the Inuit, and the leaders of Inuit communities that would be directly affected by the Project have joined the Crees in their opposition. If the Great Whale Project and the Nottaway-Broadback-Rupert Project are built, every single Cree community in Quebec would be adversely affected; most would be devastated.

were to proceed with Phase II of the James Bay project without adequately dealing with the mercury poisoning problem, this would indicate a lack of concern for the consequences of its actions that should be sufficient to establish specific intent to commit genocide. Furthermore, mercury poisoning is but one aspect of the ways in which the Cree communities directly affected by James Bay I have been deprived of the wildlife resources on which their way of life depends.

298. Picard, supra note 288, at 10. The Great Whale Project, which is planned for the area to the north of the La Grande Project, would have an installed generating capacity of 3060 megawatts, while the Nottoway-Broadback-Rupert (NBR) Project, which is planned for the area south of the La Grande Project, would have an installed capacity of 8400 megawatts. Id. Both of these projects are complexes of dams, reservoirs, and diversion structures. If both Great Whale and NBR are built, then every major river flowing from Quebec into James Bay and Hudson Bay (except for the Harricana River at the southern end of James Bay) will have been transformed for power generation—all of the watersheds in an area half the size of Texas, or two-thirds the size of France, will have been changed. MCCUTCHEON, supra note 288, at 4.

299. MCCUTCHEON, supra note 288, at 138.

300. Id. at 154.

301. This statement is based on conversations with Cree representatives and staff. Cree communities in Quebec are located on (or centered around) rivers and other bodies of water, and all of the watersheds would be changed, causing a variety of impacts on the wildlife on which the Cree culture depends. Because all of the Cree communities in northern Quebec would suffer severe direct adverse effects, it could be argued that James Bay II is intended to destroy the Crees of Quebec as a viable entity and thus, that proceeding with the project would constitute genocide. See S. EXEC. REP. No. 2, supra note 98, at 22, 28, reprinted in I.L.M. at 772 (discussing adverse effects). Regardless of whether specific intent could be established, it is hard to imagine how James Bay II could be carried out without resulting in cultural genocide. See supra note 297 and accompanying text. Even if James Bay II is stopped, there will be lasting adverse impacts, such as the destruction of wildlife habitat in Cree hunting territories caused by clear-cutting in anticipation of the project. See Coon-Come, supra note 293, at 8.
The Crees know that their way of life is at stake, and they have mounted an all-out campaign to stop James Bay II at the Great Whale River.\textsuperscript{302}

The campaign has proceeded along several fronts. First, the Crees have used the Canadian courts to try to protect their rights, including the right under the James Bay and Northern Quebec Agreement to have a role in the environmental review of the Great Whale project before construction starts.\textsuperscript{303} In addition to legal challenges, the Crees of Quebec, with support from a number of environmental and public interest organizations throughout Canada and the United States, have taken their case to the court of public opinion.\textsuperscript{304} From the summer of 1991 until the spring of 1992, those involved in the public relations campaign focused much of their efforts on seeking the cancellation of the contract between Hydro-Quebec and the New York Power Authority. This public relations campaign challenged many aspects of the project, from the human rights of the Cree and Inuit peoples to the impacts on migratory birds and endangered species. Those involved in this struggle recognized, however, that the bottom line in canceling the New York contract was convincing public officials that soft energy paths can provide for New York's energy needs more quickly and more cheaply than importing power from the North and can create jobs in New York as well.\textsuperscript{305} In March 1992, Governor Cuomo announced the cancellation of the contract for just these reasons.\textsuperscript{306} Hydro-Quebec has announced the intention to build the Great Whale project nevertheless.\textsuperscript{307}


\textsuperscript{303} See, e.g., Cree Regional Authority v. Canada (Federal Administrator), 84 D.L.R.4th 51 (1991) (Can.) (holding that the federal administrator under the James Bay and Northern Quebec Agreement (JNBQ) has a nondiscretionary duty to carry out an independent federal environmental review of the proposed Great Whale Project and that a combined federal-provincial environmental review was not permissible under the JNBQ Agreement where the Cree Regional Authority had not agreed); Cree Regional Authority v. Canada (Federal Administrator), 81 D.L.R.4th 659 (1991), affirming 2 Can. Native L. Rep. 41 (1991) (holding that the JBNQ Agreement is a legislated contract deriving its legal force from the federal and provincial laws that ratified it).

\textsuperscript{304} See, e.g., Claiborne, supra note 302, at A63.


\textsuperscript{307} Id. An environmental impact review of the Great Whale Project is currently underway. \textit{See James Bay: Open Letters to Members of NRDC}, AMICUS J., Winter 1993, at 47-50.
If the Crees had a meaningful right to self-determination under international law, even if that right were limited to internal self-determination, they would not have to engage in such a campaign to persuade United States citizens to adopt an energy strategy that ultimately serves their best interests anyway. Rather, the Crees would be able to "just say no." But this is the real world, and defending the human rights of indigenous peoples means that people in dominant societies must be persuaded that their interests and the interests of indigenous peoples are not mutually exclusive, but rather that both can be best served by choosing soft energy paths.

IV. REALIZING THE SOFT ENERGY VISION

For many reasons, choosing soft energy paths over hard energy paths will serve the interests of most people in the United States economy and worldwide. Hard-path technologies are very capital intensive, while soft-path technologies are much more labor intensive. Thus, soft paths lead to more employment. Soft paths also tend to cost less, as do energy efficiency measures, especially when cost accounting is done on a life-cycle basis where the typically high initial costs are offset by savings from low operating costs later. Accordingly, over the past two decades, soft paths have added much more to new "supplies" of end-use energy in the United States economy than have hard paths, despite massive subsidies for hard paths. Because soft-path technologies use locally available resources and employ people to do work in local economies, investments in soft paths pump money into local economies while hard-path spending drains money away to other regions and other countries. Money that stays home can be reinvested in other sectors of the economy. Moreover, because soft-path supplies tend to be less capital intensive than hard path

308. See supra notes 78-94 and accompanying text.
309. My use of this expression from the campaign against drug abuse is intended to suggest that the destruction of the natural world to produce energy for human consumption can be seen as a form of addictive behavior. See Gore, supra note 8, at 222-24.
310. See Brown et al., supra note 6, at 44-47, 61-63.
311. Id. at 36-47.
312. See supra notes 256-69 and accompanying text. In 1983, wood provided 5.5% of total end-use energy supply in the United States. This was greater than the contribution of nuclear power despite more than $40 billion in federal subsidies to nuclear power during the period from 1948 through 1980. Heede et al., supra note 256, at 9, 17.
313. See Lovins & Lovins, supra note 257, at 305-07.
supply options, choosing soft paths means that a larger portion of the total capital available for investment can be invested in other sectors.\textsuperscript{314}

These attributes of soft energy paths apply equally to industrialized countries and to the LDCs. The economies of most industrialized countries are more energy efficient than that of the United States; some analysts have concluded that energy efficiency is a major factor in the global competitiveness of the Japanese.\textsuperscript{315} A substantial body of literature indicates that there is a vast potential for energy efficiency improvements in the LDCs\textsuperscript{316} and for the use of soft energy supply options, especially decentralized, renewable energy systems, in rural areas.\textsuperscript{317} A study published by the United Nations has concluded that, for rural areas in the LDCs, the use of decentralized, renewable, stand-alone energy systems is the most realistic strategy to achieve rural electrification.\textsuperscript{318} This study also found that the practical effect of choosing a strategy for rural electrification based on extending transmission lines from centralized power plants will be that most rural communities in the LDCs that do not have electricity will never be connected to a power grid.\textsuperscript{319} One should bear in mind, of course, that the traditional homelands of most of the world’s indigenous peoples are located in rural areas of the LDCs.

Through a decade in which the Executive Branch of the United States government has been controlled by administrations that have demonstrated indifference and hostility toward soft-path options, the United States economy nevertheless has made substantial progress along several of the soft paths.\textsuperscript{320} Progress also has been achieved in the LDCs, some of which have adopted innovative programs to spur decentralized, renewable, energy

\textsuperscript{314} BROWN ET AL., \textit{supra} note 251, at 43; LOVINS & LOVINS, \textit{supra} note 257, at 43–45. Although the United States has become more efficient in its energy consumption, relative to Japan it wastes about $200 billion a year on energy inefficiency—money that might otherwise be invested in other sectors of the economy. BROWN ET AL., \textit{supra} note 251, at 43.

\textsuperscript{315} BROWN ET AL., \textit{supra} note 251, at 42–43. In 1986, the United States spent about 10\% of its GNP on energy while Japan spent about 4\% of its GNP on energy. \textit{Id.} at 43. In 1985, the U.S. economy consumed 27.5 megajoules of energy per dollar output of GNP, compared to 13.1 for Japan and figures of less than 20 for several other industrialized economies. \textit{Id.} at 42.

\textsuperscript{316} See, e.g., BROWN ET AL., \textit{supra} note 6, at 43–44; JULIE VANDOMELEN, \textit{POWER TO SPARE THE WORLD BANK AND ELECTRICITY CONSERVATION} (1988).

\textsuperscript{317} See generally ENERGY ISSUES AND OPTIONS, \textit{supra} note 253, at 125–216 (discussing the use of renewable energy systems in rural areas of the LDCs).

\textsuperscript{318} \textit{Id.} at 143–44.

\textsuperscript{319} \textit{Id.}

\textsuperscript{320} See \textit{supra} notes 254–69 and accompanying text.
development. Analysts have recommended a variety of ways to speed up this progress. This part of the Article focuses on ways in which tribal governments could use their governmental powers to help people in Indian country choose soft energy paths and, drawing on experiences of the LDCs, suggests some ways in which tribal governments in this country could help to make soft energy paths viable choices for indigenous peoples and other rural communities in the LDCs.

A. Critical Needs

In the United States and other industrialized countries, purchases of end-use energy benefits are made in markets that are heavily distorted by subsidies and regulation. Governmental institutions for regulating electricity evolved in tandem with the technologies of centralized power generation and transmission at a time when electric power was treated as a "natural monopoly." As a result, many of these institutions have been slow to respond to the range of possibilities offered by new technologies. Unfortunately, the LDCs have borrowed many aspects of the industrialized world's institutional framework. If widespread adoption of soft path options is to be a realistic possibility in the near term, concerted measures must be taken to overcome market distortions and to allow purchasers of end-use energy benefits to make informed decisions while choosing among a wide range of options.

Based on experiences in many LDCs, the United Nations Department of Technical Co-operation for Development has identified four conditions that must be met if widespread adoption of soft path options is to be possible in the rural areas of the LDCs: (1) existence of political will; (2) existence and knowledge

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323. See BAUM & TOLBERT, supra note 211, at 166–69; WORLD DEVELOPMENT REPORT 1992, supra note 24, at 114–21.
324. See generally Ralph C. Cavanagh, Least-Cost Planning Imperatives for Electric Utilities and Their Regulators, 10 HARV. ENVT'L. L. REV. 299 (1986) (discussing the breakdown of the regulatory regime and offering suggestions for reconstituting its mission); Philip R. O'Connor et al., The Transition to Competition in the Electric Utility Industry, 8 J. ENERGY L. & POL'Y 223 (1988) (arguing that the time has come for a fundamental reevaluation of the regulatory structure of the electric industry).
of resources; (3) creation of local technical capacities; and (4) creation of an appropriate funding system.\textsuperscript{325} As presented in this United Nations study, these prerequisites apply to the use of decentralized renewable energy systems to achieve rural electrification, but meeting these conditions would also expedite the widespread adoption of nonelectric, renewable energy systems and energy efficiency measures. Attention to these conditions would expedite the widespread adoption of soft energy paths in Indian country in the United States as well.\textsuperscript{326}

1. \textit{Political Will}—Political will is needed at all levels of government. Because energy marketplaces are heavily influenced by governmental policies, policies that promote conventional energy development will tend to retard soft energy development.\textsuperscript{327} In the international context, considerations of global equity influence political will in a perverse way, as many national leaders in the LDCs tend to utilize the energy technologies—particularly large-scale, centralized power plants—that they perceive as being favored in the industrialized countries. If national leaders in industrialized countries were to make soft energy options the priority at home, perhaps national leaders in LDCs would give more prominence to soft-path options in their own energy strategies. Although such national leadership is important, local political leadership is also critical. In fact, the movement for sustainable energy development in both the industrialized world and the Third World is taking place primarily at the grass-roots level, and tribal leaders in the United States could play leading roles in this movement.

2. \textit{Existence and Knowledge of Resources}—To know what their options are, people must have information both about the renewable energy resources that exist in their regions—sunlight, wind, water, biomass—and about the technologies that can be used to transform a portion of these resources into end-use energy benefits. The range of options may be quite broad, especially when energy efficiency measures and passive solar design techniques are included as part of the mix. Yet while it is necessary to have information about renewable resources to make use of them, exhaustive study of the options can delay widespread adoption of soft-path options. Leaders who choose to promote

\begin{itemize}
\item \textsuperscript{325} \textit{Energy Issues and Options}, supra note 253, at 214–16.
\item \textsuperscript{326} A study of Indian country in the United States comparable to \textit{Energy Issues and Options}, supra note 253, has not been done, but based on my experience as Solar Bank Manager for the National Congress of American Indians and Energy Planner for the Eastern Band of Cherokee Indians, I believe that these conditions should also be considered to be prerequisites in most of Indian country.
\item \textsuperscript{327} \textit{See Lovins}, supra note 254, at 25–60.
\end{itemize}
soft paths must remember that the soft energy scenario is a mix of many small-scale and community-scale technologies and energy efficiency measures. While soft-path investment decisions may involve opportunity costs, most of these investments should be seen as incremental steps whose benefits probably will outweigh the additional benefits that might have been realized through further analysis.

3. Creation of Local Technical Capacities—The widespread adoption of soft-path options in the LDCs will require technology transfer on an unprecedented scale. At the same time, however, the United Nations study concludes that simply selling or giving Third World communities technology will not be enough; rather, at least part of the manufacturing capacity and much of the design and maintenance capacity must be developed in the LDCs themselves. Although many communities in Indian country are geographically close to First World centers of technological expertise, cultural, socioeconomic, and political factors impede these communities' access to this expertise. For example, some of the limited federal programs in this country that provide technical assistance have been administered in ways that largely exclude Indian communities, by delegating power to state governments. Tribal colleges could step in and play a critical role in making the appropriate expertise accessible in Indian country.

4. Creation of Appropriate Funding Mechanisms—Funding mechanisms are critical. Energy efficiency measures may have very short pay-back periods but they do, nevertheless, require financial outlays. Pay-back periods for renewable energy systems could range from several years to a decade or two. While such pay-back periods compare favorably with megaprojects such as hydroelectric dams and coal-fired and nuclear power plants, energy consumers who lack disposable income typically do not

328. Id. at 38-39.
329. ENERGY ISSUES AND OPTIONS, supra note 253, at 215, 264 (arguing that without technological expertise on the part of users, the transfer of technology will not solve the problems of the LDCs).
331. See infra notes 349-51 and accompanying text.
act on the basis of life-cycle costing. Mechanisms are needed to make it possible for people to invest in soft-path options instead of consuming nonrenewable resources. The experiences of the multilateral development banks demonstrate that financial institutions are needed at the community level to serve as financial intermediaries between large institutions accustomed to financing megaprojects and end-use consumers/investors whose aggregate needs compare to the cost of megaprojects. The Solar Energy and Energy Conservation Bank, as originally created, was designed to help meet this need.

B. Roles for Tribal Leaders in the Soft Energy Vision

Tribal leaders are well situated to fashion strategies to address these four critical needs. Because of their inherent sovereignty, tribal governments need not await the enactment of national legislation to take steps at the reservation level. Tribal leaders could fashion a wide range of measures to help expedite the transition to the solar age by drawing on their own experiences in promoting "economic development" in Indian country and on experiences from the Third World countries. They must continue to be mindful of tribal cultural values and use their native ingenuity and creativity. The remainder of this Article suggests a few of the possibilities.

One of the most obvious ways to promote sustainable energy development at the tribal level is to make use of existing federal assistance programs which, at least on paper, encourage energy efficiency and allow the use of solar and other renewable energy technologies. A considerable portion of economic activity in Indian country is associated with construction of homes and other buildings, and tribal governments can direct this construction along soft energy paths. One such example is the Community Development Block Grant program, administered by the Department of Housing and Urban Development (HUD). Another is HUD's Indian

332. This has been called the "pay-back gap." Cavanagh, supra note 324, at 319; see also ENERGY ISSUES AND OPTIONS, supra note 253, at 216–18 (setting out procedures for life-cycle costing).
333. BROWN ET AL., supra note 6, at 158 (citing the example of the Grameen Bank of Bangladesh, which provides very small loans for micro-enterprise); see also VANDOMELEN, supra note 316, at 43.
334. See supra note 262 and accompanying text.
housing program, which expressly allows for energy efficiency and renewable energy systems.\textsuperscript{336} Examples of passive solar housing in Indian country remain the exception rather than the norm, however.\textsuperscript{337} Tribes could change this by the relatively simple act of adopting performance-based building codes that require both energy efficient housing and passive solar design practices.\textsuperscript{338} Tribal land use or environmental regulatory ordinances could require consideration of solar orientation so that even if solar design is not used in initial construction, the cost of retrofit solar applications could be minimized. Tribal leaders can help to make reservation economies more productive and more self-sufficient by conceptualizing homes as places in which economic activities take place, by encouraging homes to be built to allow for such possibilities, and by incorporating attached solar greenhouses or passive solar workshops, studios, or home office spaces.\textsuperscript{339} In the dominant American society, working at home is a trend that will save energy by alleviating the need to commute to work. For a variety of reasons, tribal leaders may want to encourage this trend in Indian country.

A small number of tribes already operate their own electric utility authorities.\textsuperscript{340} Such tribes could adopt regulatory policies, like those adopted in California pursuant to the Public Utility Regulatory Policy Act (PURPA),\textsuperscript{341} which encourage the

\textsuperscript{336} See 24 C.F.R. § 905 (1992) (administering Indian housing programs). The Bureau of Indian Affairs (BIA) also administers a housing assistance program, called the Housing Improvement Program (HIP), but the BIA’s regulations do not expressly authorize the use of solar and other alternative energy systems. See 25 C.F.R. § 256 (1992).

\textsuperscript{337} This statement is based on personal experience, including past involvement in the Housing Committee of the National Congress of American Indians. For some ideas on housing designs for Indian communities that will reflect tribal cultural values by incorporating energy efficiency and passive solar design, see Architectural Design: An American Indian Process, An Interview with Dennis Sun Rhodes, NORTHEAST INDIAN Q., Summer 1990, at 24, 27.


\textsuperscript{339} Incorporating such spaces into homes would help to promote the development of microenterprise. See Houser, supra note 243, at 4. In addition, one of the most effective ways of making housing more affordable is to eliminate the need for a family to own a second or third car. See Andres Duany & Elizabeth Plater-Zyberk, The Second Coming of the American Small Town, WILSON Q., Winter 1992, at 19, 45.

\textsuperscript{340} For example, the Navajo Nation, the Tohono O’odham Nation, and the Metlakatla Indian Community operate tribal electric utilities, the Navajo Tribal Utility Authority, Tohono O’odham Utility Authority, and Metlakatla Power and Light, respectively. My firm represents the Metlakatla Indian Community and serves as general counsel for Metlakatla Power and Light.

development of decentralized sources of power using renewable resources such as wind and solar energy. Tribes that regulate electric rates could adopt rate structures, such as time-of-day rates, to encourage energy efficiency and passive solar energy. Tribes that do not operate their own electric utilities or regulate electric power could consider doing so—in ways that encourage efficiency and the use of small-scale renewable energy sources.

Most tribes could investigate sponsoring the development of small power-generating facilities using wind, solar, and other renewable energy technologies. Creative tribal attorneys could devise a variety of ways to finance such projects. For example, if such energy systems are part of the infrastructure for industrial development, they could be financed with tribal revenue bonds. Another option would be to create limited partnerships with off-reservation investors. The "socially responsible" investment movement would be a natural way to broker such investment opportunities. Tribes with revenue streams from bingo and other gaming operations should consider investing a portion of those revenues in sustainable energy development.

Tribal leaders need to be aware that the very nature of the electric power industry is changing. Many electric utilities have developed innovative energy conservation programs; many others rely on small power-producers for most of their projected need to expand generating capacity. Private companies market energy conservation services and take a share of the savings for their payment. Tribal leaders could help to remake the electric utility industry by developing new models

347. See generally CHRISTOPHER FLAVIN, ELECTRICITY’S FUTURE: THE SHIFT TO EFFICIENCY AND SMALL-SCALE POWER (Worldwatch Paper No. 61, 1984); Cavanagh, supra note 324; Charo et al., supra note 341; O’Connor et al., supra note 324.
for providing energy design and financial services to people living and doing business in Indian country.

Tribal colleges also can play leading roles in expediting the transition to the solar age. Some of these roles are fairly obvious, since tribal colleges are the leading institutions of higher education on many reservations. Tribal colleges strive to meet the needs of the communities that they serve, but they also influence the ways in which Indian people perceive their needs for higher education in the sense that, if particular fields of study are not offered, people may not even consider such fields as options. If Indian people are to comprise a major part of the workforce in the solar age, they will need to acquire appropriate job skills, and tribal colleges must provide opportunities to acquire these skills. Many state universities offer appropriate degree programs, and tribal colleges could help to make these programs accessible to Indian students.

Some of the roles that tribal colleges could play are not so obvious. Some Indian educators have suggested that tribal colleges could engage in fee-generating consulting services. There is certainly a need in Indian country for energy design services, and tribal colleges may be well suited to fulfill this need. Many state universities have expertise in energy design, and tribal colleges could serve as a link to help make such expertise available in Indian country.

Tribal colleges also might devote some attention to issues involved in the transfer of soft-path technologies to the less-developed countries. Although there are important distinctions between communities in Indian country in the United States and communities in rural parts of the LDCs, there are some important parallels, too. By looking at technology transfer in the LDCs, tribal colleges might find ways to expedite technology transfer in Indian country and to transfer technology in ways that are culturally compatible. Tribal colleges could also help to formulate models of technology transfer that could be applied in LDC communities. Interactive software for microcomputers would be an important part of such models. As the multilateral


350. Bordeaux & Houser, supra note 349, at 57.

351. See ENERGY ISSUES AND OPTIONS, supra note 253, at 221–75.
development banks encounter increasing opposition to megaprojects, they can be expected to direct larger amounts of capital toward soft-path options, and there will be a growing need for successful models of technology transfer. Tribal leaders and educators should try to keep in mind that the homelands of many of the world’s indigenous peoples are located in rural areas of LDCs. The people of these communities very well might be receptive to technology transfer models that have been developed and tested in Indian communities in the United States. Indigenous communities in the LDCs might be receptive to technical expertise provided by American Indian consultants simply because of their common experience of trying to remain culturally distinct communities.\(^3\)

There is, of course, a political dimension to the transfer of soft-path technologies to indigenous communities. Providing communities in indigenous areas with electricity by connecting them to power grids reinforces state authority over indigenous peoples, as does the practice of building transmission lines and oil pipelines through indigenous territories. Providing electricity to indigenous communities through stand-alone systems has the potential to empower indigenous peoples in a political sense and, because such stand-alone systems can readily incorporate telecommunications, this approach also has the potential to link indigenous communities into the growing global network of indigenous peoples. Thus, realizing the soft energy vision could support self-determination for indigenous peoples not only by relieving the pressure on their homelands from exploitative “development,” but also by empowering indigenous communities both to make their own decisions about the kinds of development that they want for themselves and to draw on the experiences of other indigenous peoples in making those decisions.

CONCLUSION

Five hundred years after the dawn of the age of colonialism, Mother Earth is in danger, and so are many of the indigenous peoples that somehow have managed to survive as distinct

societies. Indigenous peoples seek recognition of their human rights under international law, and they regard environmental protection as a necessary part of their human rights. In the industrialized countries and the LDCs, many people in the environmental movement have embraced the concept of sustainable development as a necessary part of any long-term strategy to resolve global environmental problems. In any realistic strategy to achieve sustainable development, energy efficiency and community-scale renewable energy systems must be prominently featured.

This Article has presented an overview of the emerging international law of the human rights of indigenous peoples and has argued that, for the promise of the international recognition of these rights to be fulfilled, the industrialized countries and the LDCs must choose to take soft energy paths and must make concerted efforts to achieve real progress along these paths. This Article also has suggested some ways in which tribal leaders in the United States could help to expedite the global transition to the solar age. The reasons for choosing soft energy paths are both principled and pragmatic. Indigenous peoples are part of the human family and, by that simple fact, they deserve to be treated with dignity and with respect for their human rights. Aside from principle, and although we may not realize it, the people of the industrialized world and the less developed countries need indigenous peoples to survive as distinct societies. As the people of the world strive for models of development that are sustainable over the long term, we need, as examples, indigenous peoples whose ways of life have proven to be sustainable over countless generations, since the dawn of mythic time.

Several of the writers whose works have been cited in this Article have called for individuals and communities and nations to change the way we think about the Earth. Indigenous peoples also have called for such a global change of mind. The oral history of the Haudenosaunee (Iroquois) Confederacy provides an inspirational example of what can be accomplished when people change the way they think. When the Peacemaker planted the Great Tree of Peace and brought together the Five Nations to form the Confederacy, one of the keys to his success was persuading individuals to use their powers of rational thought

353. DALY & COBB, supra note 10, at 376–400; GORE, supra note 8, at 238–65; MEADOWS ET AL., supra note 6, at 222–36.

354. See, e.g., EREIRA, supra note 18, at 1–2; SUZUKI & KNUDTSON, supra note 1, at 233–35.
to overcome fear and hatred and to act for the common good.\textsuperscript{355} This kind of reasoning is what is sometimes called the "discipline of the Good Mind."\textsuperscript{356} If we are to cope effectively with the global environmental crisis, we will need for people all over the world to exercise such positive mental discipline. The authors of Beyond the Limits suggest that there are essentially three mental models among which we can choose, only one of which offers a chance of avoiding ecological collapse on a global scale.\textsuperscript{357} This model says

That the limits are real and close, and that there is just exactly enough time, with no time to waste. There is just exactly enough energy, enough material, enough money, enough environmental resilience, and enough human virtue to bring about a revolution to a better world.

That model might be wrong. All the evidence we have seen, from the world data to the global computer models, suggests that it might be right. There is no way of knowing for sure, other than to try it.\textsuperscript{358}

This conclusion, based on scientific analysis, bears a striking similarity to a statement made by one of the Kogi religious leaders, a similarity which I think is not entirely coincidental. The words of the Kogi spokesman are these:

Many stories have been heard that the sun will go out, the world will come to an end. But \textit{if we all act well and think well} it will not end. That is why we are still looking after the sun and the moon and the land.\textsuperscript{359}

Around the world, indigenous peoples are doing their best to fulfill their sacred duties to care for the Earth. The states of the world, nongovernmental organizations, and concerned individuals can help by respecting, and by insisting that others respect, the human rights of indigenous peoples, including the right of self-determination.