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ARTICLE

CLIMATE CHANGE, SUSTAINABILITY AND GLOBALIZATION:

CHARTING THE FUTURE OF INDIGENOUS ENVIRONMENTAL SELF-DETERMINATION

*Rebecca Tsosie**

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I. INTRODUCTION

The accelerated rate of climate change poses an environmental reality that no nation can afford to ignore. However, we are currently in a time period of severe economic retraction which makes-short term decision-making appear both necessary and “rational.” Within the contemporary global economy, “development” is a necessity, and environmental protection may become an afterthought. When immediate action is required to stabilize an economy or promote basic survival, how can governments afford to engage in long-term environmental decision-making that is intended to mitigate the most extreme consequences of climate change for future generations? Future generations exist purely at the level of “thought”: unnamed individuals who lack rights, a voice, or any other means to assert their interests. Under the utilitarian framework that continues to guide global decision-making, nations engage in a cost-benefit analysis to determine which policies will best advance their present interests. Consensual treaties or agreements come only after signatory states have determined that agreement to an international standard or protocol is in the nation’s own self-interest, or, at a minimum, will not cause harm to the nation.

Where do indigenous peoples fit within this framework? In the United States, federally-recognized tribes are considered separate governments with the capacity to choose their preferred mode of development, including mineral extraction, timber harvesting, or leasing reservation lands for retail or commercial development.¹ With the advent of gaming, many Indian nations have capital to invest in national and global markets, and economic development is now the conscious goal of most tribal

1. See Wallace Coffey & Rebecca Tsosie, *Rethinking the Tribal Sovereignty Doctrine: Cultural Sovereignty and the Collective Future of Indian Nations*, 12 STAN. L. & POL’Y REV. 191, 192 (2001).

governments.² In many ways, the model of autonomous decision-making that is common to the nation-states of the world is also applicable to Indian nations, who often utilize a cost-benefit analysis similar to that of other governments. With respect to climate change, Indian nations have the sovereign power to implement policies to mitigate greenhouse gas (“GHG”) emissions and promote energy conservation.³ They also have the power to develop energy reserves, lease their lands to energy companies, and may even choose to site new power plants on their lands, so long as they are able to secure the relevant federal permits to operate those plants.⁴ In the United States, indigenous environmental “self-determination” expresses itself within a domestic governance model as “sovereignty.”

But what about indigenous communities who are engaged in traditional land-based rather than market economies and who are impacted by the harms of climate change? The rights of indigenous peoples are largely dependent upon the policies of the nation-state that governs them.⁵ For example, many Inuit communities are facing the harsh reality of climate change at this moment, as their villages become flooded by the rising sea level caused by glacial melt, as they lose access to traditional hunting areas, also flooded by rising sea levels, as well as associated harms to natural resources caused by rapid temperature increases.⁶ These communities must request assistance from the domestic government in relocating their villages.⁷ However, it is very expensive to relocate an entire village (one report estimates \$400 million to relocate a single village), particularly when similar lands are also in danger of flooding.⁸ There is no “right” to have an entire village relocated, nor, as the Inuit have discovered, is there a right to force the United States or any other nation-state to adjust its policies, either to mitigate further climate change or pay damages for harms that have already occurred.⁹ The Inuit people face the loss of an entire cultural way of life as land-based traditional

2. See Angelique A. EagleWoman, *Tribal Nation Economics: Rebuilding Commercial Prosperity in Spite of U.S. Trade Restraints—Recommendations for Economic Revitalization in Indian Country*, 44 *Tulsa L. Rev.* 383, 410 (2008).

3. JONATHAN M. HANNA, *NATIVE COMMUNITIES AND CLIMATE CHANGE: PROTECTING TRIBAL RESOURCES AS PART OF NATIONAL CLIMATE POLICY* 32 (Jonathan M. Hanna ed., 2007).

4. *Id.*

5. Rebecca Tsosie, *Indigenous People and Environmental Justice: The Impact of Climate Change*, 78 *U. COLO. L. REV.* 1625, 1663 (2007).

6. *Id.* at 1672.

7. *Id.* at 1672–73.

8. HANNA, *supra* note 3, at 1.

9. Tsosie, *Indigenous People*, *supra* note 5, at 1669–74.

communities.¹⁰ Yet there is no cause of action for harm to culture, particularly when the harm is vague and amorphous without a clear culpable defendant.¹¹ After all, doesn't everyone contribute to the harm of climate change? Why try to pin liability on one nation, the United States will argue, when China, India and many other nations are generating high emissions from coal-fired power plants? We can extend this analysis to countless other indigenous groups, for example, in the Pacific Islands and in Latin America, who face wholesale destruction of their traditional ways of life from deforestation, flooding, and contamination caused by mining and other forms of development.¹²

Traditional indigenous communities, like future generations, appear to be the victims of contemporary domestic and international decision-making that does not recognize rights to cultural survival or any duty to future generations. This deficit in global decision-making inspires an argument for "indigenous environmental self-determination" as a *human right* sufficient to impose an obligation upon nation-states to mitigate the harms of climate change that jeopardize the very existence of many indigenous communities.¹³ In fact, many commentators have argued that traditional indigenous worldviews embody an ethic of "sustainability" that could be emulated by world governments to mitigate some of the harms of industrialization.¹⁴ Under this view, the extinguishment of Native lifeways jeopardizes our commitment to "sustainability," endangering not only indigenous communities, but the entire planet.¹⁵

Of course, the global community has a choice at this moment. We can express our regret for the "inevitable" and try to help the affected peoples relocate from their traditional lands in a cost-effective manner, which will likely entail relocation of individual families to urban environments rather than relocation of entire communities to similar lands. However, as Inuit leader Sheila Watt-Cloutier has noted, this attitude effectively reduces an entire people to the status of a "footnote to globalization."¹⁶

10. *Id.* at 1673.

11. HANNA, *supra* note 3, at 35.

12. Tsosie, *Indigenous People*, *supra* note 5, at 1636–37.

13. *Id.* at 1663–67 (arguing for a right to indigenous environmental self-determination based on human rights norms promoting cultural survival).

14. See Sarah Krakoff, *American Indians, Climate Change, and Ethics for a Warming World*, 85 DENV. U. L. REV. 865, 893–94 (2008).

15. See *id.* at 897.

16. Press Release, Inuit Circumpolar Council, Inuit Petition Inter-American Comm'n on Human Rights to Oppose Climate Change Caused by the United States of America (Dec. 7, 2005).

In fact, this approach is not much different from the 19th century notion of the “vanishing redman,” which posited that indigenous peoples would disappear in the face of civilization, thereby justifying the wholesale appropriation of Native lands, genocidal military campaigns against indigenous peoples, and paternalistic efforts to “save” individual Indians by sending them to government-run boarding schools.¹⁷ Alternatively, we can broaden our domestic and international governance structures to promote recognition of the distinctive interests of these communities. What if we seriously engage the normative principles of the Declaration on the Rights of Indigenous Peoples? What if we claim a right to cultural self-determination? What if we claim the right to live as our ancestors lived, on the lands that have nurtured us through time? What if we claim a right to protect our children, and those yet unborn? In short, what if we recognize that traditional Native ethical constructs can be components of a contemporary system of environmental ethics?

Of course, indigenous peoples cannot depend upon others to assert their rights for them. As the Inuit have discovered, the United States is not likely to change its domestic policies merely because it seems like a nice thing to do. Indigenous peoples will have to be proactive in their efforts to reshape domestic and international law. A transformation in the way that we think about key concepts such as “sustainability” and “self-determination” may also be necessary because indigenous peoples are not equally situated with respect to their political, economic, or cultural rights.¹⁸ Yet, their very distinctiveness as “indigenous” requires a relationship to the land.¹⁹ Thus, it is in the interest of all indigenous peoples to think through the policy implications of climate change, sustainable development, and globalization. This occurred, for example, in August of 2007, when delegates from several indigenous nations around the world met at the Lummi Nation and signed a proposed treaty creating the “United League of Indigenous Nations.”²⁰ According to Chief Jaret Cardinal of the Sucker Creek Cree Nation, the treaty was intended to provide a mechanism for indigenous nations to stand together on common issues, including global warming and international trade.²¹ Suzan Shown Harjo,

17. Rebecca Tsosie, *Reclaiming Native Stories: An Essay on Cultural Appropriation and Cultural Rights*, 34 ARIZ. ST. L.J. 299, 317–18 (2002).

18. Tsosie, *Indigenous People*, *supra* note 5, at 1625.

19. *Id.*

20. Redwing Cloud, *United League of Indigenous Nations Formed*, INDIAN COUNTRY TODAY, Aug. 10, 2007.

21. *Id.*

President of the Morningstar Institute, described the treaty as “a historical act” and an “act of self-defense.”²² Professor Alan Parker of Evergreen State University, who has been involved in the foundational work leading to the treaty for many years, emphasized that native people throughout the world are “being impacted in their ability to sustain a way of life that is essential to their survival,” and thus, they must exercise a “collective voice” and insist upon representation “before all national and international bodies on climate change.”²³ Similarly, tribal leaders from across the country have advocated for national climate legislation “[t]o fight global warming and preserve their ways of life. . . .”²⁴ These leaders have asked to be included as “sovereign partners” in addressing the problem of climate change at the national and international levels.²⁵

This article explores indigenous peoples’ claims to “sustainability” and “self-determination” in an era where the global community faces challenges that could dramatically alter the natural world, most vividly illustrated by the problem of climate change. Although we constitute a “global community” in an ecological sense, we are also situated within a multitude of cultural communities that have differing values about our obligations to other communities, to the land, and to future generations. This is true for both tribal governments and nation-states, though the values may express differently. Given this reality, how do we create needed policy changes at the local, national, and global levels? As John Dernbach observes, climate policy tends to evolve at the intersection of energy law and environmental law.²⁶ This article examines tribal, national and international policies on climate change, exploring the relationship between energy development and environmental protection and positing that the two are not mutually exclusive and must operate in tandem. It is not the purpose of this paper to argue for some bucolic and romanticized vision of native environmentalism. This paper does argue, however, that continuing tensions over development evoke intercultural norms of value, sustainability, and justice.

22. *Id.* at 3.

23. *Id.* at 2.

24. *Nation’s Tribes Asking Congress for Swift Action on Climate Legislation*, NARF LEGAL REV., Winter/Spring 2009, at 10. [hereinafter NATIVE AMERICAN RIGHTS FUND].

25. *Id.*

26. Daniel Cordalis & Dean B. Suagee, *The Effects of Climate Change on American Indian and Alaska Native Tribes*, NAT. RESOURCES & ENV’T, Winter 2008 at 45, 45 (citing John C. Dernbach, *U.S. Policy*, 2007 A.B.A. Sec. of Env’tl., Energy, and Resources GLOBAL CLIMATE CHANGE AND U.S. LAW 61, 65 (Michael B. Gerrard, ed., A.B.A. 2008) (2008)).

Many types of economic development, including mining and other forms of energy development, have profound human rights implications for indigenous groups.²⁷ Throughout the world, indigenous communities are fighting to preserve their traditional lands from deforestation, destruction from dam projects, and mining.²⁸ On an international level, such efforts often entail the need for the nation-state to recognize indigenous “title” to these lands and to protect the people from being forcibly relocated by developers.²⁹ Within the United States, however, hard-won battles over tribal sovereignty have resulted in a set of domestic laws that enable Indian nations to engage in energy development, such as the creation of new coal-fired power plants that would provoke vehement opposition if proposed for state-governed lands.³⁰ In that sense, some expressions of domestic tribal sovereignty may appear antithetical to the argument for indigenous environmental self-determination that would allow traditional communities, such as the Inuit, to posit rights against such development in order to protect their identity as land-based cultural communities. We do not do ourselves any favors by brushing over the apparent contradictions, because those contradictions will always be used against indigenous peoples by their opponents. It is the purpose of this paper to engage those tensions, in a spirit of respect for tribal sovereignty, for Native cultural survival, and the right of all peoples to define the nature and quality of their collective future.

Part II of this article examines the politics of climate change within the international and domestic governance structures, on the theory that these politics provide the overarching framework for discussions on tribal energy policy and the context of indigenous “environmental self-determination.” Part III explores the history and current context of tribal energy development that informs much of the contemporary exercise of environmental self-determination for Indian nations in the United States. In Part IV, the article provides a focused discussion of the energy policies of the Navajo Nation, which has asserted its sovereign authority to develop its energy reserves in a manner that is consistent with tribal norms and its commitment to self-determination. This discussion reveals the active synergy between energy development and environmental protection in

27. Janeth Warden-Fernandez, *Indigenous Communities' Rights and Mineral Development*, 23 J. ENERGY & NAT. RES. L. 395, 397 (2005).

28. *Id.* at 396.

29. S. James Anaya & Robert A. Williams, Jr., *The Protection of Indigenous Peoples' Rights Over Lands and Natural Resources Under the Inter-American Human Rights System*, 14 HARV. HUM. RTS. J. 33, 48 (2001).

30. *Id.* at 67.

the Navajo Nation, and the complex normative views undergirding that Nation's policy choices. Finally, Part V of the article develops the notion of "sustainability" as one that embodies the combined forces of policy, justice, and environmental ethics.

II. THE POLITICS OF CLIMATE CHANGE WITHIN INTERNATIONAL AND DOMESTIC GOVERNANCE STRUCTURES

Climate scientists throughout the world agree that the question is not "whether" we will experience climate change in the future, but rather how we will deal with the catastrophic impacts of climate change in the future. Many of these scientists came together as the Intergovernmental Panel on Climate Change to generate a 2007 Synthesis Report that documents an eighty percent growth in carbon dioxide emissions between 1970 and 2004.³¹ Carbon dioxide, of course, is a major component of the GHG emissions responsible for global warming.³² One of the frustrations with climate science is the fact that future projections vary according to the type of model used.³³ Thus, the predicted increase in GHG emissions between 2000 and 2030 ranges from twenty-five to ninety percent, depending upon the model used.³⁴ However, all climate scientists agree on the harms of global warming, including rapid glacial melt and attendant flooding, forest fires, severe weather storms, drought, water shortages, extinction of species, and desertification.³⁵ The only question is how soon the most severe impacts will occur. The consequences of global warming will be substantial and governments will spend billions of dollars dealing with these harms.³⁶ However, the economic costs of curbing fossil energy production are also substantial, leading to an active debate over whether nations should attempt to mitigate the harms by limiting GHG emissions, or whether they should focus on adaptation strategies that center on promoting the status of particular nation-states as climate change "winners" rather than climate change "losers."³⁷

These debates center around certain key developments in international policy, such as the Kyoto Protocol and domestic attempts to pass climate change legislation. Indigenous peoples,

31. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 5 (2007.) [hereinafter IPCC].

32. *Id.*

33. *Id.* at 7.

34. *Id.*

35. IPCC, *supra* note 31, at 10.

36. *Id.* at 22.

37. *Id.* at 14.

not surprisingly, are swept along through the momentum of debates that do not consider them as an active force in generating policy, but rather as a passive group that responds both to domestic policies and to emergent climate events, such as fire or flooding, within the domestic framework. The natural result of this policy framework is to make indigenous peoples' interests subordinate to the interests of the nation-states. If the interests of particular groups are in alignment with those of the nation-state, the indigenous community will benefit. If the interests are not in alignment, there is no current alternative framework available for indigenous communities to assert their divergent interests.

A. *The International Regime*

The United Nations Framework Convention on Climate Change ("Framework Convention") came into force in 1994 and by 2004, 189 countries had ratified the Convention, which was designed to mitigate the harms of climate change through voluntary, consensual action by the nation-states.³⁸ The 1997 Kyoto Protocol set the actual emissions targets for industrialized nations, and that Protocol came into force on February 16, 2005, indicating global consensus on the need to reduce GHG emissions.³⁹ Although the United States was a party to the Framework Convention, the Bush Administration refused to present the Kyoto Protocol to the Congress for ratification, blaming the problem on developing countries such as India and China,⁴⁰ and neglecting its own role as the leading producer of GHG emissions in the world.⁴¹ The Kyoto Protocol is due to expire in 2012,⁴² and representatives from the various nations who are parties to the Framework Convention will meet in Copenhagen in December 2009 to negotiate the terms of the next international agreement on climate change.⁴³ Preliminary discussions held in Bonn in Summer 2009 revealed substantial differences among the nations, largely due to the projected economic impacts of the emissions restrictions climate scientists

38. Dale Jamieson, *Adaptation, Mitigation, and Justice*, in PERSPECTIVES ON CLIMATE CHANGE: SCIENCES, ECONOMICS, POLITICS, ETHICS 217, 218 (Walter Sinnott-Armstrong & Richard B. Howarth eds., Elsevier 2005). As of 2009, 192 nations have signed onto the UN Framework Convention on Climate Change. See Anne Eckstein, *EU/UN/Climate: Despite Some Progress, Negotiations are Stalling*, EUROPOLITICS ENERGY, June 24, 2009, at No. 0759.

39. See Jamieson, *supra* note 38, at 218–19.

40. *Id.* at 220.

41. See HANNA, *supra* note 3, at 45 (asserting that twenty-five percent of global GHG emissions are generated by the United States).

42. See Jamieson, *supra* note 38, at 220.

43. See Eckstein, *supra* note 38, at No. 0759.

deemed necessary to mitigate the most severe harms of climate change.⁴⁴ Consequently, industrialized countries, including the United States, envisioned a reduction of emissions of about eight to fourteen percent, while scientists recommended a reduction of twenty-five to forty percent by 2020.⁴⁵ The thirty-seven developing countries who are parties to the Kyoto Protocol, on the other hand, argued for the industrialized countries to reduce emissions by at least forty percent in order to allow them to continue their own development, as envisioned by the Kyoto Protocol.⁴⁶ The representative for China, in particular, noted that the country's priority is economic growth and its agreement to participate in climate negotiations was premised on "common but differentiated responsibility."⁴⁷ Consequently, China anticipates a thirty percent increase in coal production.⁴⁸ Significantly, none of the nations committed to finance efforts to alleviate global warming or provide adaptation aid for the most vulnerable countries.⁴⁹ Thus, while the nations were eager to claim the benefits of a new climate change policy, they were also quick to disclaim responsibility for sharing the burdens.

To date, Native Nations within the United States have been lumped into the U.S. policy on climate change, mainly because they lack standing as independent nations to either agree to or dissent from the international conventions.⁵⁰ This works to the advantage of federally-recognized Indian nations, such as the Crow Tribe and the Navajo Nation, who possess large reservations with significant energy reserves. In many ways, these Nations are more similar to developing countries because they have high rates of poverty and unemployment and are heavily reliant upon energy development. These Native Nations are able to maximize the economic value of their fossil fuel reserves, and also have political capital within the domestic legal structure to initiate energy development, including coal-fired power plants, on their lands without being restricted by state laws. Tribal sovereignty to develop energy resources is bolstered in a global marketplace by the political and economic power of the United States.

44. *Id.*

45. *Id.*

46. *Id.*

47. George Will, *World Shrugs at Global Warming*, ARIZ. REPUBLIC, July 26, 2009, at B11.

48. *Id.*

49. See Eckstein, *supra* note 38, at No. 0759.

50. See Tsosie, *Indigenous People*, *supra* note 5, at 1664.

The harms, as well as the benefits, indigenous communities experience are treated as a “domestic” issue. For example, although the traditional lands of the Inuit people are now comprised within four different countries, the harms that befall particular Inuit communities are treated as a “domestic” problem. In the United States, federal or state agencies will only assist Native Americans in relocating their villages after flooding if they have sufficient resources.⁵¹ Otherwise, agencies do not see the harms as different from the harms to other citizens caused by catastrophic events, such as hurricanes and fires, which destroy residences and necessitate relocation. The policies of the federal and state agencies are most often uniform for all citizens. For example, the Army Corps of Engineers requires, as a condition of assistance, that “the economic costs of a project not exceed its economic benefits.”⁵² The Federal Emergency Management Agency (“FEMA”) provides flood insurance only to residents in communities if they manage their floodplains in specific ways, requiring communities to contribute a proportionate amount of the cost of flood management.⁵³ Native peoples are impacted as “peoples” living traditional lifeways on their lands over generations, and not merely as “citizens” of the United States responding to an environmental crisis. Isn’t this human rights issue a matter of international concern?

Assuming that the devastating impacts of climate change on land-based indigenous communities constitute a human rights issue, then recognition of an indigenous right to environmental self-determination should require nation-states to protect the relationship between Native peoples and their traditional lands for future generations.⁵⁴ The right of federally-recognized Indian nations to assert political sovereignty over their reservation lands is distinct from the right of indigenous peoples to be protected from destruction of their cultural lifeways. Both rights are important and necessary, yet they achieve different goals and ought not to be conflated with one another. In some cases, the two rights are complementary. In other cases, the two rights may in fact come into conflict, necessitating a balance of the legal and moral issues on each side.

51. See HANNA, *supra* note 3, at 12, 18.

52. *Id.* at 18.

53. *Id.*

54. See Tsosie, *Indigenous People*, *supra* note 5, at 1644.

B. The Domestic Arena

Because the United States has not bound itself to any international agreement requiring it to limit GHG emissions,⁵⁵ there has not been any urgent need to pass national legislation to implement such a policy. Thus, there is currently no domestic barrier to development that would impact tribes such as the Crow Tribe and Navajo Nation in their efforts to develop their coal resources. In fact, the domestic conversation about the impacts of climate change on Native peoples has focused on their vulnerability to the harms of global warming, although this has not resulted in any tangible legal strategy to protect affected Native communities. The U.S. Global Change Research Program's study on "Climate Change Impacts on the United States," published in 2000 and updated in 2003, devotes a portion of its assessment to "Native Peoples and Homelands."⁵⁶ The Assessment Team's report discusses Native peoples in all regions of the United States and concludes that there are a set of special challenges common to all Native peoples, identified as "(1) impacts on tourism and community development; (2) impacts on human health; (3) impacts on water and natural resource rights; (4) impacts on subsistence economies and cultural resources; and (5) impacts on cultural sites, wildlife, and natural resources."⁵⁷

A 2007 study, prepared by Jonathan Hanna for the Natural Resources Law Center at the University of Colorado, further documents these effects using a regional analysis of the threats to traditional hunting and gathering rights, reserved water rights, fishing rights, and flooding of Native lands in coastal regions of Alaska, the Pacific Northwest and Florida.⁵⁸ Hanna concludes that "the effects of climate change will fall disproportionately on tribes" and calls for the United States government to take affirmative steps to include tribes in the process of crafting national climate change policy and legislation, and to forge cooperative relationships with tribes to "ensure solutions that will be fair and equitable for everyone."⁵⁹

According to Hanna's study, climate change in the Pacific Northwest poses a significant threat to tribal treaty rights to

55. See Jamieson, *supra* note 38, at 219.

56. See U.S. NATIONAL ASSESSMENT SYNTHESIS TEAM, CLIMATE CHANGE IMPACTS ON THE U.S.: THE POTENTIAL CONSEQUENCES OF CLIMATE VARIABILITY AND CHANGE 84 (2001).

57. *Id.*

58. See HANNA, *supra* note 3, at 5.

59. *Id.* at 1.

take fish at their “usual and accustomed places.”⁶⁰ Changes to water flow and water temperature threaten salmon runs and also exacerbate pollution, which destroys the marine environment and promotes the existence of “dead zones” where aquatic species cannot survive.⁶¹ In a world where climate change has destroyed the salmon resource, tribal treaty rights to fish will be meaningless.⁶² They will be simply a vestige of the past. In this area, tribal sovereignty has little impact unless it is used to *protect* the salmon resource. Of course, treaties are not the only basis for Native hunting and fishing rights. In Alaska, as Hanna notes, Native Alaskans and other rural Alaskans have a legal right to engage in subsistence hunting and fishing activities under the Alaska National Interest Lands Conservation Act (“ANILCA”).⁶³ Judicial case law has further defined these rights, as they are exercised by Native Alaskans, as protected by the federal government’s trust responsibility.⁶⁴ Thus, for Native peoples, climate change jeopardizes the tangible legal rights treaty, statute, and the trust doctrine guarantee.

In the Southwest, Hanna concludes that issues of water quantity and water quality will pose the greatest harms for Native peoples.⁶⁵ Indian nations in the Southwest have litigated fervently to define their federal reserved rights to water resources, which stem from the federal government’s action in reserving lands for the permanent use and occupancy of the tribes.⁶⁶ The Hanna report concludes that drought cycles likely to hit the region will heavily impact tribal water rights in the Southwest.⁶⁷ Not only will tribal water supplies diminish, but “increased salinity and an increase in water borne diseases” will also affect the quality of water.⁶⁸ Hanna projects substantial impacts upon tribal economic development, including agricultural production, tourism projects (such as whitewater rafting, fishing and ski resorts), and natural resource

60. *Id.* at 8.

61. *Id.* at 7.

62. *See* HANNA, *supra* note 3 at 8.

63. *Id.* at 14.

64. *Id.* at 17.

65. *Id.* at 19.

66. *See* *Arizona v. California*, 373 U.S. 546, 600 (1963) *abrogated on other grounds* by *California v. United States*, 438 U.S. 645 (1978) (Indian water rights are effective as of the date that the reservation was created and are entitled to priority in accordance with this date in state stream adjudications); *Winters v. United States*, 207 U.S. 564, 577 (1908) (finding that the federal government implicitly reserved water for tribal use when it set aside land for reservation).

67. *See* HANNA, *supra* note 3, at 20.

68. *Id.*

extraction.⁶⁹ For example, Hanna observes that coal extraction on Navajo and Hopi land was facilitated by a coal slurry pipeline to Nevada that pumped three million gallons of water per day for thirty-five years, leading to “a dramatic drop in the water table as well as water supply contamination concerns. . . .”⁷⁰ While the power plant was closed in 2006, damage to the groundwater resource and ecosystem persists nevertheless.⁷¹ Hanna’s report directly raises the tension between tribal energy development and “sustainability,” and concludes that “the decision by tribes to develop natural resource extraction will obviously need to consider the long-term sustainability of these activities.”⁷²

In the Southeast, Hanna projects that the Seminole and Miccosukee tribes of Florida will experience coastal flooding that could result in loss of tribal lands and substantially impact subsistence patterns, cultural uses of the lands, and the flooded natural resources.⁷³ Many of the projected impacts are similar in kind to those faced by Native Alaskans. The Southeast tribes, however, face loss of reservation lands as well as “traditional ceremonial and subsistence practices” outside the reservation on lands that are now part of state and federal conservation areas, such as Everglades National Park.⁷⁴ In addition, the Florida tribes are involved in agricultural and ranching enterprises that could be jeopardized by climate change.⁷⁵

Hanna’s report documents the likelihood that climate change will have a severe and disparate impact on Native communities and will jeopardize their legal rights to land, water, natural resources, and cultural resources.⁷⁶ He suggests that, because of these legal rights as well as federal duties under the trust responsibility, the U.S. government ought to act affirmatively to protect Native rights.⁷⁷ Hanna discusses the 1994 Executive Order requiring federal agencies to work to achieve environmental justice in agency policies and regulations, which is not legally enforceable but provides a guiding principle for agency action.⁷⁸ Hanna makes a persuasive case for federal

69. *Id.*

70. *Id.* at 22.

71. *See* HANNA, *supra* note 3, at 22.

72. *Id.*

73. *Id.* at 26.

74. *Id.* at 27.

75. *See* HANNA, *supra* note 3, at 27.

76. *Id.* at 28.

77. *Id.*

78. *Id.* at 29 (discussing EXEC. ORDER NO. 12898, 3 C.F.R. 859 (1995), *reprinted as amended in* 42 U.S.C. § 4321 (1994 & Supp. VI 1998)).

action to protect tribal rights under domestic law, though no concrete steps have been taken to date.

C. Summary and Recommendations for Action

In view of the documented effects of climate change that are now occurring, as well as the projected harms we are likely to experience in the future, there are a number of suggested recommendations for action at the international and domestic levels. It is useful to explore these suggestions before engaging a discussion of the role of tribal environmental policy in the national discussion on climate change.

1. International Human Rights Law

The domestic framework that governs tribal sovereignty over the reservation environment is currently inadequate to provide affirmative protection to traditional land-based communities, such as the Inuit, who are losing their land base, their hunting and fishing resources, and an entire cultural way of life.⁷⁹ This inadequate framework and subsequent loss are the basis for recognizing a human right to environmental self-determination for traditional land-based Native communities. Such a right would require the United States and other nation-states to engage in mitigation strategies, as well as adaptation policies, in order to protect indigenous communities from immediate and severe impacts, such as flooding, which would require relocation. The U.N. General Assembly's adoption of the United Nations Declaration on the Rights of Indigenous Peoples in 2007 further enhances this argument.⁸⁰ The Declaration's preamble calls for "control by indigenous peoples over developments affecting them and their lands, territories and resources."⁸¹ Article 3 echoes the language of the Covenant on Civil and Political Rights, which is applicable to all "peoples," proclaiming that "[i]ndigenous peoples have the right to self-determination."⁸² "By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development."⁸³ Article 10 provides that "[i]ndigenous peoples shall not be forcibly removed from their lands or territories."⁸⁴ Articles 11, 12 and 13 protect the rights of

79. See Tsosie, *Indigenous People*, *supra* note 5, at 1673.

80. Declaration on the Rights of Indigenous Peoples, G.A. Res. 61/295, ¶10, U.N. Doc. A/RES47/1 (Sept. 7, 2007).

81. *Id.*

82. *Id.* at art. 3.

83. *Id.*

84. G.A. Res. 61/295, *supra* note 80, at art. 10.

indigenous peoples to “practice and revitalize their cultural traditions and customs” and to transmit cultural practices “to future generations.”⁸⁵ Article 25 provides that “[i]ndigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.”⁸⁶ Article 29 provides that “[i]ndigenous peoples have the right to the conservation and protection of the environment,” and calls upon states to take effective measures to guard against environmental hazards that would jeopardize the health of indigenous peoples.⁸⁷ Taken in the aggregate, these guarantees are the essence of an indigenous right to environmental self-determination. Indigenous peoples possess such a right by virtue of their traditional use and possession of ancestral lands, their continuing cultural practices associated with these lands and resources, and their obligation to ensure the continuity of these rights across generations. The problem with this argument, of course, is that the U.N. Declaration is prescriptive and is not enforceable. At the moment, the right of indigenous environmental self-determination is purely theoretical.

Some commentators argue that existing doctrines within international human rights law, such as those protecting property rights, can protect the environmental interests of native communities.⁸⁸ For example, Jaska argues that “recognizing and enforcing indigenous property rights promotes environmental sustainability” in two ways: first, by shielding indigenous lands and resources from “appropriation by the world’s largest consumers”; and second, by promoting “a diversity of approaches to human interaction with the environment” and “entrusting stewardship of particular ecosystems to the finely tuned cultural expertise that indigenous peoples have developed through millennial relationships with their ancestral lands.”⁸⁹ There is in fact case law at the international level directing nation-states to secure indigenous property rights against appropriation by non-

85. *Id.* at art. 11–13.

86. *Id.* at art. 25.

87. *Id.* at art. 10, 29.

88. Matthew F. Jaska, *Putting the “Sustainable” Back in Sustainable Development: Recognizing and Enforcing Indigenous Property Rights as a Pathway to Global Environmental Sustainability*, 21 J. ENVTL. L. & LITIG. 157, 199 (2006).

89. *Id.* at 162.

Indian development interests.⁹⁰ The argument is well-taken, primarily because it makes the case that domestic nation-states ought to protect indigenous property rights against appropriation by developers. Jaska asserts that traditional communities, engaged in subsistence uses on their lands, are in a “sustainable” relationship with their environment.⁹¹ Hence, protecting their property rights promotes “sustainability.”

The utility of these arguments for Native peoples within the U.S. is questionable, partly because the United States continually resists the notion that international human rights law is binding or enforceable,⁹² and partly because Native nations in the U.S. already possess legal rights to their lands and resources.⁹³ The question in the context of climate change is whether or not the United States must take affirmative steps to mitigate the harms that are likely to affect Native peoples as a result of climate change, and if so, how it should accomplish this.

2. Domestic Law

Hanna argues that the United States has an obligation to protect Native lands and resources because tribes hold multiple legal rights to land, water and other natural resources.⁹⁴ Hanna’s Report makes several recommendations, starting with the observation that, as a matter of procedure, Congress should invite input from tribal representatives on proposed legislation and also invite their participation in the process of formulating climate policy.⁹⁵ In addition, Hanna argues that any domestic climate change legislation should provide funding for the tribes’ adaptation needs, as well as tribal mitigation programs.⁹⁶ This funding could come through carbon taxes or cap-and-trade schemes.⁹⁷ Hanna also suggests that Congress provide funding

90. See, e.g., *Mayagna (Sumo) Awas Tingni Cmty. v. Nicaragua*, 2001 Inter-Am. Ct. H.R. (ser. C) No. 79, ¶ 173 (August 31, 2001) (holding that the international human right to enjoy the benefits of property, affirmed in the American Convention on Human Rights, includes the right of indigenous peoples to the protection of their customary land and resource tenure, and finding that Nicaragua violated the rights of the Awas Tingni people by granting a timber concession to a logging company within the tribe’s traditional use area); *Maya Indigenous Comty. of the Toledo Dist. v. Belize*, Case No. 12.053, Inter-Am. C.H.R. Report No. 40/04, OEA/Ser.L/V/II.83, doc. 5 rev. 1 at 727 (2004) (holding that Mayas held an indigenous communal property right in the disputed territories, and the state had violated the rights of the Maya people by granting logging and oil concessions in the Mayas’ lands without the Mayas’ consultation and consent).

91. Jaska, *supra* note 88, at 192.

92. Joe Stork, *Human Rights and U.S. Policy*, FOREIGN POLICY IN FOCUS, May 1999, at 1.

93. *Cherokee Nation v. Georgia*, 30 U.S. 1, 13 (1831).

94. HANNA, *supra* note 3, at 28.

95. *Id.* at 30.

96. *Id.* at 30–31.

97. *Id.* at 31.

for tribes to develop renewable energy, such as wind and solar energy, on their lands.⁹⁸ Finally, Hanna agrees that the United States ought to adopt an effective national mitigation strategy that requires the U.S. to curb GHG emissions.⁹⁹ A policy of adaptation that accepts the irreversible nature of global warming and refuses to significantly curb CO₂ emissions will validate the notion that loss of tribal lands, natural and cultural resources is “inevitable.”

Although Congress has yet to pass domestic climate change legislation, the House of Representatives recently passed H.R. 2454, the American Clean Energy and Security Act of 2009, which is the first time that major legislation on climate change has passed either house of Congress.¹⁰⁰ This complex bill is described as “the most significant plan to counter domestic pollution since passage in the 1970s of the Clean Air Act and the Clean Water Act.”¹⁰¹ The Bill “sets out a schedule for reductions in [GHG emissions] from 2005 levels of seventeen percent by 2020 to eighty-three percent by 2050.”¹⁰² This reduction is to be achieved through a “cap-and-trade program” that applies to the most significant sources responsible for up to eighty-five percent of U.S. emissions.¹⁰³ The cap-and-trade program would commence in 2012, and would start with 4.6 billion allowances and decrease to just over one billion allowances by 2050.¹⁰⁴ “Power plants, oil refineries, natural gas distribution companies, geological sequestration sites, certain [categories of] industrial sources, and . . . large industrial sources that emit more than 25,000 tons of CO₂ annually would be considered ‘covered entities’ subject to the cap.”¹⁰⁵ The covered entities would be required each year to surrender “an allowance for every ton of CO₂ emitted . . . or pay a penalty equal to twice the market value of the missing allowances, [as well as] offsetting the additional

98. HANNA, *supra* note 3, at 31.

99. *Id.*

100. American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009); *see also* Susan Milligan, *House Approves Overhaul of Environmental Policy: Package Means a Big Victory for Obama*, BOSTON GLOBE, June 27, 2009, at 6, available at 2009 WLNR 12291002.

101. Milligan, *supra* note 100.

102. Seth Jaffe et al., *National Cap-and-Trade Legislation Passes the House: At 1428 Pages, Nearly Something for Everyone*, MONDAQ, July 3, 2009, available at 2009 WLNR 12707229.

103. *Id.*

104. *Id.*

105. *Id.*

emissions within the next year.”¹⁰⁶ The covered entities would also be able to meet the cap using offsets.¹⁰⁷

The bill contains numerous provisions designed to promote renewable energy, increase energy efficiency, and transition the nation to a “clean energy economy.”¹⁰⁸ In its current form, the bill does not specifically endorse the development of nuclear power as a “renewable energy” resource, although it contains a subtitle on “Nuclear and Advanced Technologies.”¹⁰⁹ Proponents of nuclear energy production claim that a stronger commitment to develop nuclear energy is necessary to combat climate change, and there are efforts in the Senate to insert such a provision.¹¹⁰ While it is much too early to project how Indian nations will fare under the terms of domestic climate change legislation,¹¹¹ it is very clear that such legislation will apply comprehensively throughout the United States and will preempt any state, tribal, regional or EPA programs that are not consistent with the provisions of the legislation.¹¹² Indian nations will be bound by the standards, as are other governments within the United States,¹¹³ though they may in fact be the beneficiaries of new partnerships to engage in the development of renewable energy and to mitigate the economic impacts of the legislation on rural and poor communities. Thus, although Indian nations who are heavily reliant upon development of fossil fuel resources could be harmed economically by this legislation, they will also have the opportunity to participate in the marketplace for pollution credits and in the incentives for development of renewable energy.¹¹⁴ Native communities who are being harmed by climate change will presumably benefit from the reduction in GHG emissions, though it is not clear that any particular funds will be made available to vulnerable communities who are in jeopardy of losing their lands and natural resources altogether.¹¹⁵

Domestic climate change legislation will also affect the role of the U.S. Environmental Protection Agency, which historically has been the primary agency to govern the application of federal environmental policies within Indian Country. In *Massachusetts v. EPA*, the U.S. Supreme Court held that under the Clean Air

106. Jaffe, *supra* note 102.

107. *Id.* at 3.

108. H.R. 2454.

109. *Id.*

110. Katherine Ling, *Climate: Nuclear Title May Not be Enough to Push Senate Bill Over the Top*, GREENWIRE, July 17, 2009, <http://www.eenews.net>.

111. *See infra* Part V.

112. H.R. 2454 § 453(b).

113. H.R. 2454 § 701(b)(4).

114. H.R. 2454 § 131(b).

115. H.R. 2454 § 701(a).

Act, the EPA has the authority to regulate greenhouse gases from automobile emissions.¹¹⁶ In April 2009, the EPA formally declared carbon dioxide and five other heat-trapping gases to be pollutants that endanger public health and welfare for purposes of the Clean Air Act, indicating its intent to regulate these pollutants, though not specifying any particular targets for reduction.¹¹⁷ The pending climate change bill specifically “prevents EPA from imposing additional greenhouse gas regulations by specifying that CO₂ and other greenhouse gases may not be regulated as criteria air pollutants or hazardous air pollutants, nor would they apply to New Source Review under the Clean Air Act.”¹¹⁸

With respect to the EPA’s role in Indian Country, Hanna argues that in setting the level and extent of greenhouse gas regulation, the EPA should take into account the federal government’s trust responsibility to Indian tribes and the executive order on environmental justice.¹¹⁹ These issues are currently under active consideration in relation to the EPA’s initial decision to issue a permit to the Desert Rock power plant on the Navajo Nation, as this article will discuss below.¹²⁰ However, it is very likely that EPA will be forced to maintain consistent nation-wide standards, particularly if the climate change legislation applies, thereby curtailing any discretion that the agency might have enjoyed to apply existing CAA standards to serve the interests of particular Native communities.

Taking a step back from the legislative arena, it is clear that from a justice perspective the interests of Indian nations are not consistent in the area of climate change. On the theory that Indian nations engaged in development of fossil fuel energy reserves are more like developing countries, justice concerns might dictate that they be allowed to maintain this level of development, even though other large-scale power generators are restricted. However, on the theory that the United States government has a trust responsibility to protect vulnerable Indian communities from harms associated with climate change, justice presumably requires the United States to sharply curtail emissions, even if this disadvantages the current development of energy resources by tribes. For Indian nations, the “justice”

116. *Massachusetts v. Envtl. Prot. Agency*, 549 U.S. 497, 528 (2007).

117. John M. Broder, *EPA Clears Path to Regulate Heat-Trapping Gases for First Time in U.S.*, N.Y. TIMES, April 18, 2009, at A15.

118. Jaffe, *supra* note 102, at 4.

119. HANNA, *supra* note 3, at 31.

120. *See infra* Part V.

inquiry has a profound historical context, as the next part of this article demonstrates.

III. THE TRIBAL ARENA: ENERGY DEVELOPMENT AND NATIVE NATIONS

The history of energy development in Indian Country is complex, revealing successive episodes of federal policy designed to exploit energy resources on reservation lands for the benefit of the American population, and then shifting to a recognition of the Indian nations as sovereigns with the right to control mineral development on reservation lands.¹²¹ This policy continuum began during an era where the federal government was actively attempting to dismantle traditional Native economies and promote tribal “dependency” upon the federal government.¹²² However, federal policy currently promotes the federal government’s commitment to “self-determination,” which focuses on the integration of Native Nations into the domestic economy as market players.¹²³ The active interchange between the dynamics of “dependency” and “self-determination,” and between “exploitation” and “market opportunity” informs the considerations of justice for Native Nations in contemporary policy discussions on energy development.¹²⁴

A. *The Legacy of the Past*

Mining in Indian Country has been occurring for generations as the result of successive federal policies encouraging the exploitation of natural resources on Indian reservations.¹²⁵ In the late 19th century, vast portions of treaty-guaranteed Indian reservations were appropriated for use as the “public lands” of the United States.¹²⁶ Many of these lands contained rich reserves of coal, oil, and gas.¹²⁷ Other lands remained in tribal ownership, but were leased out for mineral development by Bureau of Indian Affairs (“BIA”) officials who felt that the lands should be used for “industrial development” by non-Indian lessees, rather than sitting in “unproductive

121. MARJANE AMBLER, *BREAKING THE IRON BONDS: INDIAN CONTROL OF ENERGY DEVELOPMENT* 31, 40, 172 (University of Kansas Press 1990).

122. *Id.* at 31–32.

123. *Id.* at 23–24.

124. *Id.* at 262.

125. Rebecca Tsosie, *Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics, and Traditional Ecological Knowledge*, 21 VT. L. REV. 225, 301 (1996).

126. AMBLER, *supra* note 121, at 33, 40–41.

127. *Id.* at 33–37.

idleness” in the hands of Indian owners.¹²⁸ The Indian Reorganization Act, which was part of the New Deal era, purported to shift decision-making authority to tribal councils, although the councils were initially seen as merely “rubberstamping” decisions that had already been made by BIA officials.¹²⁹ In any case, the leases signed during these years were overwhelmingly weighted in favor of non-Indian mining interests.¹³⁰ Lease royalties were minimal, far below market value, and federal officials did not require lessees to remediate the environmental harm to tribal lands or to protect tribal members working in the mines.¹³¹

By the 1970s, the beginning of the policy era of self-determination for tribal governments, Indian nations sought to take control by renegotiating leases to reflect more favorable economic terms, and also sought to identify the consequences of mining on reservation lands, water resources, and the tribal members who lived and worked in mining communities.¹³² The reality was clear. There was no way to return to some “pristine” or “preindustrial” condition for many reservation lands.¹³³ Open mines and mineral tailings were rampant on reservation lands.¹³⁴ Previous uranium mining and coal strip-mining operations devastated the lands and caused many health issues due to air pollution and contamination of soil and water resources.¹³⁵ In addition, many tribes were heavily dependent upon mining for employment.¹³⁶ This situation inspired the development of “Tribal Employment Rights Ordinances,” (“TEROs”), which required mining companies operating on the reservation to give an employment preference to tribal members.¹³⁷ In many communities, employment in coal and uranium mines was the only real option for work, aside from limited positions with the tribal government or BIA.¹³⁸

Although some mines were eventually closed, such as the uranium mines on the Navajo Nation and on the lands of the Laguna Pueblo in New Mexico, tribal governments still had to

128. *Id.* at 37.

129. *Id.* at 32, 51.

130. AMBLER, *supra* note 121, at 37.

131. *Id.* at 52, 54–57.

132. *Id.* at 23, 65, 192.

133. *Id.* at 172.

134. AMBLER, *supra* note 121, at 178.

135. *Id.* at 172.

136. *Id.*

137. Vicki J. Limas, *The Tuscar Organization of the Tribal Workforce*, 2008 MICH. ST. L. REV. 67, 82.

138. AMBLER, *supra* note 121, at 172.

deal with the costs of environmental remediation and the unemployment of the mine workers.¹³⁹ Federal policy has never departed from its emphasis on resource extraction as a viable source of tribal revenue. The only difference is that more recent statutes, such as the 1982 Indian Mineral Development Act, promote a more active role for the tribal governments as commercial partners, in order to maximize revenues.¹⁴⁰ In addition, modern Supreme Court case law confirms the power of tribal governments to impose taxes on mineral lessees in order to offset the costs of mining for the tribes.¹⁴¹ Thus, even in an era of self-determination, the legacy of the past endures in the continuing economic dependency of many Indian nations on mining revenues and the lack of effective methods to deal with the contamination caused by decades of mining in Indian country. Environmental harm tends to be cumulative and is quite apparent on many reservations today.

B. Tribal Sovereignty as Environmental Justice

The Environmental Justice Movement (“EJM”) emerged during the 1980s as a “grassroots response to evidence that environmental hazards disproportionately affect the health and well-being of low-income communities and communities of color.”¹⁴² Although this work initially focused on the inequities suffered by poor African-American and Latino communities, the analysis was quickly extended to Native American communities, in large part because of the harmful legacy of mineral exploitation in Indian Country.¹⁴³ Studies documented that uranium mining on Indian reservations throughout the United States resulted in severe, widespread contamination of land and water resources.¹⁴⁴ Coal power plants located on or near reservations have caused disproportionate levels of pollution and affect the health of tribal members.¹⁴⁵ The American Academy of Sciences referred to Navajo lands in the Four Corners region as a “national sacrifice area” in reference to the permanent damage and pollution caused by coal strip-mining.¹⁴⁶ In the 1990s, EJM activists focused on the efforts of solid and

139. *Id.* at 173, 181.

140. JUDITH V. ROYSTER & MICHAEL C. BLUMM, *NATIVE AMERICAN NATURAL RESOURCES LAW* 333 (2d ed. 2008).

141. *Merrion v. Jicarilla Apache Tribe*, 455 U.S. 130, 137 (1982).

142. Tsosie, *Indigenous People*, *supra* note 5, at 1629.

143. *Id.*

144. Nancy B. Collins & Andrea Hall, *Nuclear Waste in Indian Country: A Paradoxical Trade*, 12 *LAW & INEQ.* 267, 294–95 (1994).

145. Tsosie, *Indigenous People*, *supra* note 5, at 1630 & n.16.

146. *Id.* at 1630 & n.17.

hazardous waste companies to site facilities on tribal lands, as well as in minority and low-income communities, and deemed this to constitute a civil rights issue.¹⁴⁷ Indian nations resisted this attempt to be identified as “victims” of environmental “injustice.”¹⁴⁸ Tribal leaders and their legal advocates claimed that this was a “sovereignty” issue because tribes are governments capable of deciding whether and if such a facility can lease reservation lands.¹⁴⁹ The only “injustice” to Indian nations was caused by the federal government’s failure to acknowledge tribal sovereignty and the BIA’s decisions to allow reservation resources to be exploited without adequate compensation or mitigation.¹⁵⁰ Tribal advocates pressed for the tribes to be formally recognized under the federal pollution control statutes, such as the Clean Air Act and the Clean Water Act, as sovereign governments capable of assuming regulatory authority, issuing appropriate standards for air and water resources, and enforcing those standards through the “cooperative federalism” of the federal pollution control statutes.¹⁵¹ The Tribal Amendments to many of the major pollution control statutes were subsequently enacted in the late 1980s and early 1990s, enabling tribes to set their own standards for air and water quality and to assume regulatory authority over their reservation lands in partnership with the EPA.¹⁵² Sarah Krakoff draws on this history to assert that “environmental justice for tribes must be consistent with promotion of tribal self governance.”¹⁵³

The lesson that emerged from the first generation of environmental justice claims for Native peoples was that equality of status as governments was the key to “justice,” rather than the “equality of citizenship” that is the focus of environmental justice claims on behalf of poor and minority communities. The “justice” inquiry focuses on the ability of the tribal government to choose the appropriate type of economic development for the reservation, as well as determine the relevant balance between securing the economic benefit of resources and protecting the integrity of the reservation environment and the health of tribal members.

147. Collins, *supra* note 144, at 303–04.

148. Tsosie, *Indigenous People*, *supra* note 5, at 1631.

149. *Id.*

150. *Id.* at 1632.

151. AMBLER, *supra* note 121, at 192–93.

152. Tsosie, *Indigenous People*, *supra* note 5, at 1632 & n. 31.

153. Sarah Krakoff, *Tribal Sovereignty and Environmental Justice*, in JUSTICE AND NATURAL RESOURCES 161, 163 (Kathryn M. Mutz et al. eds., 2002).

C. Tribal Self-Determination and Climate Justice

The concept of “climate justice” is now leading the way in the second generation of EJM claims, asserting that global impacts of climate change are falling disproportionately on minority and low-income communities.¹⁵⁴ At a global level, the discussion has focused on the inequities that continue to occur for underdeveloped countries, who have historically contributed the least CO₂ emissions, but who are now likely to suffer the most from the consequences of climate change and their own inability to engage in effective adaptation.¹⁵⁵ In addition, global attention has focused on the position of small nations, such as those in the Pacific Islands, who are in danger of disappearing altogether in the face of sea level rise.¹⁵⁶ What is the responsibility of the industrialized nations to assist in the relocation of these communities and where can they go? To date, the industrialized nations have not broadly accepted any notion of “responsibility” for the harms of climate change.¹⁵⁷ Globally, many of the most affected communities are indigenous.¹⁵⁸ Most of these communities are outside the United States.¹⁵⁹ For those communities, an appeal to international consensus, building on human rights norms, appears to be one of the only viable strategies to secure any assistance or cooperation from the United States.

The discussion is different for federally-recognized tribes in the United States. Here, the tribes have already fought and won the battle for recognition of tribal sovereignty over reservation lands.¹⁶⁰ They can be part of the national policy debate on climate change and, absent binding federal legislation, they can make sovereign decisions about what they, as governments, feel is the correct framework to guide their own participation in mitigation or adaptation.¹⁶¹ One of the most pressing questions is whether tribes should or would decide to shift from fossil fuel energy to renewable or “green” energy as an aspect of economic development. As a matter of tribal policy, which course is best and how should the tribe decide? This is a much different

154. Tsosie, *Indigenous People*, *supra* note 5, at 1633 & n. 36.

155. *Id.* at 1634–35 & n. 44.

156. *Id.* at 1636 & n. 54.

157. Paul G. Harris, *Fairness, Responsibility, and Climate Change*, 17 ETHICS & INT'L AFF. 149, 150 (2003).

158. *Id.* at 149.

159. Anup Shah, *Rights of Indigenous People*, GLOBAL ISSUES, May 4, 2009, <http://www.globalissues.org/article/693/rights-of-indigenous-people>.

160. *Iron Crow v. Oglala Sioux Tribe of the Pine Ridge Reservation*, S.D., 231 F.2d 89 (8th Cir. 1956).

161. See Cordalis & Saugee, *supra* note 26, at 45–46.

question than asking how the role of federal law will require tribes to conform to a national energy agenda.

Federal law, of course, will continue to influence tribes by setting mandatory and preemptive standards, as the pending American Clean Energy and Security Act of 2009 would do, and by offering incentives for tribes to align with national policy objectives.¹⁶² For example, the Energy Policy Act of 2005 contains provisions addressing climate change issues.¹⁶³ Title XVI of the Act focuses on reducing carbon intensity—the ratio of greenhouse gas emissions per unit of gross domestic product—through the use of less carbon-intensive technologies.¹⁶⁴ However, the Act does not establish mandatory limits on GHG emissions, instead calling for voluntary reduction through use of cleaner technologies.¹⁶⁵ Many tribal communities are in the process of examining the feasibility of renewable energy projects on reservations, such as wind power or solar power.¹⁶⁶ In addition, tribes may participate in carbon markets, through partnerships with the National Carbon Offset Coalition that allows tribes to allocate tribal forest lands for carbon sequestration, which becomes a marketable commodity to be sold on the Chicago Climate Exchange.¹⁶⁷ With respect to voluntary, incentive-based policies, tribal adherence to federal directives is conditioned upon the tribe's assessment of what policy is best suited to advance the tribe's own interests. In addition, Indian nations must examine their own norms and values to determine what is most consistent with the tribe's own view of its desired future. The Navajo Nation's management of its natural resources and the reservation environment provides an excellent case study for understanding the dual and interactive forces of federal and tribal law.

IV. THE NAVAJO NATION AND ENERGY DEVELOPMENT: A CASE STUDY OF TRIBAL SELF-DETERMINATION

At a tribal energy conference held in Washington D.C. on July 17, 2007, Navajo Nation President Joe Shirley, Jr. “proposed a new energy initiative that reflects a growing recognition by American Indian tribes of the links between domestic energy production, tribal self-determination and

162. H.R. 2454.

163. Cordalis & Saugee, *supra* note 26, at 48.

164. Energy Policy Act of 2005, 42 U.S.C. § 15801 (2005).

165. *Id.*

166. Cordalis & Saugee, *supra* note 26, at 47–48.

167. HANNA, *supra* note 3, at 33.

reducing GHGs and other pollutants from energy development.”¹⁶⁸ President Shirley noted that the Navajo Nation, like many other tribes, “has tremendous reserves of fossil and renewable resources . . . but lacks the financial resources necessary to tap those energy resources.”¹⁶⁹ The Navajo Nation has exercised its sovereignty over its reservation lands and environment to promote a multifaceted approach to energy development, which endorses development of coal resources, bans development of uranium resources, and advocates development of renewable energy through collaborative wind and solar projects.¹⁷⁰ The Navajo Nation has institutionalized a nuanced legal approach to environmental regulation that blends traditional norms with contemporary pollution control standards and has developed a complex administrative system to enforce its laws.

A. *The Navajo Nation’s Governance Structure*

The Navajo Nation has a well-developed administrative structure to guide the Nation’s sovereignty over reservation lands.¹⁷¹ The Navajo Nation created the Navajo Energy Development Administration as part of the Executive Branch, to plan energy related projects for renewable energy, such as solar, wind and geothermal energy, as well as coal, oil, gas and uranium.¹⁷² The Navajo Nation was one of the first tribal governments to create an environmental protection office.¹⁷³ The Nation first created the Navajo Tribal Environmental Protection Commission in 1972, as an arm of the tribal council.¹⁷⁴ In 1994, the Navajo Nation created the Navajo Nation Environmental Protection Agency (“NNEPA”) as an independent agency within the Navajo Nation government.¹⁷⁵ The NNEPA oversees a complex array of tribal environmental programs addressing air quality, surface and groundwater quality, solid and hazardous waste quality, pesticides and

168. Daniel B. Saugee & Douglas C. MacCourt, *Tribal Government and the Climate Crisis: Bringing Renewable Energy Online in Indian Country*, 2007 A.B.A. SEC. ENVTL., ENERGY, & RESOURCES REP. 1, 1.

169. *Id.* at 1–2.

170. Bradford D. Cooley, *The Navajo Uranium Ban: Tribal Sovereignty v. National Energy Demands*, 26 J. LAND RESOURCES & ENVTL. L. 393; Saugee & MacCourt, *supra* note 168, at 1–2.

171. Jill Elise Grant, *The Navajo Nation EPA’s Experience with “Treatment as a State” and Primacy*, NAT. RESOURCES & ENV’T, Winter 2007, at 9.

172. NAVAJO NATION CODE ANN. tit. 4, §§ 701–702 (2005).

173. Grant, *supra* note 171, at 9.

174. *Id.*

175. tit. 4, § 902.

underground storage tanks.¹⁷⁶ These programs apply throughout the Navajo Nation reservation, which encompasses over 27,000 square miles and extends across portions of Arizona, Utah and New Mexico.¹⁷⁷

The Navajo Nation has been authorized for “treatment as a state” (“TAS”) status under three federal environmental programs: the Safe Drinking Water Act (“SDWA”), the Clean Water Act (“CWA”) and the Clean Air Act (“CAA”).¹⁷⁸ In 2000, the Navajo Nation received approval for its Public Water Systems Supervision Program under the SDWA, a first for any Indian tribe.¹⁷⁹ The EPA granted the Navajo Nation TAS status for all water systems within tribal lands, on tribal trust, and any allotted lands outside its reservations.¹⁸⁰ In accordance with its policy, the EPA employed the jurisdictional analysis of *Montana v. United States*¹⁸¹ to selectively approve the Navajo Nation’s ability to regulate water systems on certain parcels of non-Indian fee land within the reservation where most users within the system were Navajos.

The Navajo Nation’s Water Quality Program started when the NNEPA promulgated tribal water quality standards on November 12, 1999, and then submitted its TAS application to EPA on December 28, 2000, updating its application in 2001.¹⁸² Under the Clean Water Act, tribal authority to issue water quality standards is considered to be dependent upon the tribe’s jurisdictional authority to do so as a matter of inherent sovereignty.¹⁸³ A series of Supreme Court cases, starting with *Montana* and culminating with *Plains Commerce Bank v. Long*¹⁸⁴ constrains tribal regulatory and adjudicatory authority over nonmembers, particularly on fee lands within the reservation. After a series of inquiries into aspects of the Nation’s jurisdiction, the EPA granted TAS on January 23, 2006,

176. Grant, *supra* note 171, at 9.

177. *Id.*

178. *Id.* (explaining the NNEPA also submitted TAS applications for an Underground Injection Control Program under the SDWA, as well as the NPDES Program under the CWA).

179. *Id.* at 11.

180. Grant, *supra* note 171, at 11.

181. *Montana v. United States*, 450 U.S. 544, 565 (1981) (holding that tribes retain only limited jurisdiction over the activities of non-Indians on fee land within the reservation, generally when the nonmember “enters consensual relationships with the tribe or its members,” or when the nonmember’s “conduct threatens or has a direct effect on the political integrity, economic security, or health or welfare of the tribe.”).

182. Grant, *supra* note 171, at 12.

183. *Id.*

184. *Plains Commerce Bank v. Long Family Land & Cattle Co.*, 128 S. Ct. 2709, 2719 (2008).

and approved the water quality standards on March 23, 2006.¹⁸⁵ The NNEPA asserted that the EPA was obligated to promulgate federal water quality standards for those areas of Navajo Indian country—specifically allotted lands and dependent Indian communities—not covered by the TAS approval for the reservation and tribal trust lands.¹⁸⁶

The Navajo Nation also received approval for the Clean Air Act's Title V operating permit program, which is a delegation of federal authority. The Navajo Nation is the first tribe to receive authority for this program.¹⁸⁷ The Navajo Nation pursued this authority under 40 CFR Part 71, which provides that the EPA can delegate the administration of Part 71 Programs to states and eligible tribes.¹⁸⁸ In this way, the state or tribe is able to collect the permit fees that pay for program implementation. The NNEPA was able to regulate the nonmember owners of the two coal-fired power plants on the reservation more easily under a delegation of federal authority than would have been possible under an inherent sovereignty analysis.¹⁸⁹

The Navajo Nation's comprehensive administrative structure enables the Nation to assume primacy over management of the reservation environment, and with the assistance of the EPA, the Navajo Nation is able to comprehensively administer its pollution control programs throughout Navajo Indian Country, even in areas that are not now within tribal ownership.¹⁹⁰

B. The Role of Navajo Law

The Navajo Nation Code has many chapters and titles devoted to energy development and environmental law. With respect to the topic of this paper, it is important to observe that the Navajo Nation has enacted its own Environmental Policy Act as the sovereign charter guiding the Nation's decision-making authority over the reservation environment.¹⁹¹ The Navajo Nation Environmental Policy Act provides that "[i]t is the policy of the Navajo Nation to promote harmony and balance between the natural environment and people of the Navajo Nation, and to restore that harmony and balance as necessary."¹⁹² The Act

185. Grant, *supra* note 171, at 12.

186. *Id.*

187. *Id.*

188. *Id.*

189. Grant, *supra* note 171, at 12.

190. *Id.*

191. NAVAJO NATION CODE ANN. tit. 4, § 902 (1995).

192. tit. 4, § 901.

further provides that “the protection, restoration and preservation of the environment is a central component of the philosophy of the Navajo Nation” and recognizes that the acts of all government agencies and departments have the potential to effect the environment.¹⁹³ Consequently, “it is the policy of the Navajo Nation to use all practicable means to create and maintain conditions under which humankind and nature can exist in productive harmony.”¹⁹⁴

The Act specifies that the Navajo Nation should exert its governmental authority for several purposes.¹⁹⁵ Importantly, the enumerated purposes include concepts of stewardship, responsibility, and cultural integrity.¹⁹⁶ The first purpose is “to fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.”¹⁹⁷ Other provisions secure for the Navajo Nation “a safe, healthful, productive, aesthetically pleasing and culturally appropriate environment,” and secure protection for “important cultural, religious, historic, and natural aspects of the Navajo Nation.”¹⁹⁸ The Act is clear that the Nation seeks to minimize harm to the environment and to remediate past environmental contamination and damage.¹⁹⁹ The final provision calls upon the government “to achieve and maintain balance between population and resource use to permit a high standard of living.”²⁰⁰

Although the Environmental Policy Act is prescriptive, rather than legally enforceable (the Act provides that it does not waive the Nation’s sovereign immunity and does not create a private right of action), it is very valuable because it is the template against which to measure particular actions that impact the Navajo Nation.²⁰¹ It is also the foundation for the elaborate set of code provisions which govern air and water resources and regulate mining activities on reservation lands. The Navajo Nation Tribal Council has also drawn upon the codification of the Navajo Nation’s traditional laws in its interpretation of environmental policy, which is evident in the 2005 statute which bans uranium mining within “Navajo Indian Country,” enacted in response to the tragic history of uranium

193. *Id.*

194. *Id.*

195. tit. 4, § 903(A)–(G).

196. tit. 4, § 903.

197. tit. 4, § 903(A).

198. tit. 4, § 903(B), (F).

199. tit. 4, § 903 (D), (E).

200. tit. 4, § 903(G).

201. tit. 4, § 905.

mining on the Navajo Nation and also an active assertion of cultural sovereignty by the Dine people.²⁰²

C. Uranium Mining

National policy statements on energy development increasingly tout nuclear power as a “green” source of energy as compared with high-carbon emitting fossil fuels. In fact, on April 28, 2005, President George Bush made a statement encouraging Americans to avoid dependence on foreign energy and adopt new strategies, including finding “innovative and environmentally sensitive ways to make the most of our existing energy resources, including . . . safe, clean nuclear power.”²⁰³ The next day, Navajo Nation President Joe Shirley, Jr. signed the Dine Natural Resources Protection Act of 2005, which prohibits all uranium mining within Navajo Indian country.²⁰⁴ The statute provides that “no person shall engage in uranium mining and uranium processing on any sites within Navajo Indian Country.”²⁰⁵ The Navajo Nation’s uranium ban is particularly significant because an estimated twenty-five percent of recoverable uranium in the United States is located on these lands.²⁰⁶

The Navajo Nation’s decision to enact the Dine Natural Resources Protection Act responds to the devastating history of uranium mining on the Navajo Nation, which was actively promoted by the United States government and which President Joe Shirley equates with a practice of “genocide” against the Navajo people.²⁰⁷ President Shirley’s statement is not merely polemical. The United States government began uranium mining in the late 19th century, and many of the richest deposits in the country were discovered in southeastern Utah and the Colorado Plateau.²⁰⁸ In 1939, the U.S. government began preliminary exploration for uranium on the Navajo reservation, though at that time most uranium was imported from Canada

202. Cooley, *supra* note 170, at 394.

203. *Id.* at 393.

204. *Id.*

205. tit. 18, § 1303.

206. Cooley, *supra* note 170, at 393.

207. *Id.* at 394.

208. See Barbra Rose Johnston & Susan Dawson, *Resource Use and Abuse on Native American Land: Uranium Mining in the American Southwest*, in WHO PAYS THE PRICE? THE SOCIOCULTURAL CONTEXT OF ENVIRONMENTAL CRISIS 142, 144 (Barbara Rose Johnston ed., 1994).

and Africa.²⁰⁹ In 1942, the U.S. government began a classified survey of the Colorado Plateau and covertly mined uranium on the Navajo Reservation.²¹⁰ However, after World War II, Congress passed the 1946 Atomic Energy Act, which established the Atomic Energy Commission (“AEC”). In 1947, the AEC opened offices in Colorado, New Mexico and Utah and offered a \$10,000 discovery bonus for high grade deposits of uranium.²¹¹ Native peoples had long known of the location of the red and gold rocks that are associated with uranium, and tribal members guided U.S. officials to these deposits. Active uranium mining on the Navajo Nation commenced in the 1940s in mines leased by the Vanadium Corporation of America.²¹²

The U.S. Public Health Service conducted the earliest study of uranium mining on the Navajo Nation, starting in 1949.²¹³ Although the health impacts of uranium were already known and precautionary measures were available, the study revealed that the Navajo workers were not protected in any way, nor were they advised to change their clothing before returning home to their families.²¹⁴ They breathed the air and drank the water contaminated by the active uranium ore.²¹⁵ None of this was disclosed to the Navajo Nation, as the U.S. government awarded uranium mining contracts to Kerr-McGee Corporation, and presented the contracts to the Navajo Nation Council as a source of employment for tribal members. A 1952 health study undertaken by the Federal Security Agency documented the high mortality rate among uranium miners from lung cancer.²¹⁶ The results of this study were not disclosed to the tribe or tribal members for fear that the Navajo miners would quit if they knew this information.

Under the 1946 Atomic Energy Act, the uranium industry was controlled by the AEC, and all uranium mined had to be sold to the AEC.²¹⁷ The AEC took the position that it was not responsible for the health of the workers, and so no formal laws

209. See F. J. Hahne, Paper Presented at the Fourteenth International Symposium: Early Uranium Mining in the United States (September 1989), available at <http://www.world-nuclear.org/reference/usumin.html>. See also PETER H. EICHSTAEDT, IF YOU POISON US: URANIUM AND NATIVE AMERICANS 31–32 (Red Crane Books 1994).

210. EICHSTAEDT, *supra* note 215, at 33.

211. Johnston & Dawson, *supra* note 208, at 124.

212. EICHSTAEDT, *supra* note 215, at 31.

213. Cooley, *supra* note 170, at 395.

214. Johnston & Dawson, *supra* note 208, at 124.

215. *Id.*

216. Cooley, *supra* note 170, at 396.

217. Johnston & Dawson, *supra* note 208, at 146.

or rules protected mine safety.²¹⁸ The need for uranium in America gradually shifted from national security to energy consumption. The U.S. federal government continued to purchase uranium until 1971, when the law shifted to allow commercial operators to directly acquire the fuel source.²¹⁹ Thus, the century-long practice of the United States controlling uranium mining and its failure to assume responsibility for the health of the workers supports President Shirley's charge of "genocide." After an extensive set of hearings and testimony about the impacts of these mining practices on Navajo workers, Congress eventually passed the 1990 Radiation Exposure Act (as amended in 2000) to provide limited compensation to miners or their widows who could meet a stringent set of requirements.²²⁰ This tort model of legislation authorizes individual payment to those who can document their injuries as directly attributable to the negligent conduct of the tortfeasors. It does not compensate the Navajo Nation for the damage it suffered.

The miners, of course, were not the only victims of radioactive contamination. As uranium mines were abandoned, companies simply walked away and left huge piles of tailings, which are the refined byproduct of the ore. The tailings from uranium mines have contaminated air, groundwater, streams and soil on the Navajo reservation. The wind blew dust from the tailings piles into Navajo homes and water sources.²²¹ Holding ponds on the reservation associated with the uranium mines were not well-maintained. In 1979, a mud dam near Church Rock, New Mexico failed, spilling over 1,100 tons of uranium tailings, and an estimated 100 million gallons of radioactive wastewater into the Rio Puerco River.²²² This is the largest nuclear spill in U.S. history, and it caused extensive damage to the Navajo people, their lands, water resources and the livestock that drank the contaminated water. Although the Navajo plaintiffs sought to bring a cause of action for damages against United Nuclear Corporation ("UNC") in tribal court, the Supreme Court had previously held that the tribal court did not have jurisdiction over the action because the United States had preempted this by centralizing any liability of nuclear companies in the federal courts.²²³ Eventually, UNC agreed to pay a

218. *Id.*

219. *See generally* Douge Brugge & Rob Goble, *The History of Uranium Mining and the Navajo People*, 92 AM. J. PUB. HEALTH 1410, 1411 (discussing the history of uranium mining and government purchases in the United States).

220. Johnston & Dawson, *supra* note 208, at 151.

221. Cooley, *supra* note 170, at 396.

222. *Id.*

223. *See* El Paso Natural Gas Co. v. Neztosie, 526 U.S. 473, 477 (1999).

minimal out-of-court settlement to the plaintiffs.²²⁴ The mill was closed in 1982 and the site was placed on the Superfund National Priorities List in 1983.²²⁵ Although clean up efforts have commenced, the site is still on the Superfund List and a 2003 study by the Navajo Nation Environmental Protection Agency revealed continuing radioactive contamination of water, soil and homes built with rocks from the tailings piles.²²⁶ Today, the Navajo Nation is attempting to reclaim the 1,200 uranium mines within its reservation, an expensive and daunting task.²²⁷

The Navajo Nation exercised its sovereignty to redress this history by enacting the Dine Natural Resources Protection Act of 2005, which reflects many of the principles set forth in the Navajo Nation Environmental Policy Act and specifies that “the wise and sustainable use of natural resources in Navajo Indian Country traditionally has been, and remains, a matter of paramount governmental interest of the Navajo Nation.”²²⁸ In its legislative findings, the Navajo Nation Council cites the fundamental laws of the Dine People (codified in 2002 amendments to Title 1 of the Navajo Nation Code) in support of “preserving and protecting” the Navajo Nation’s natural resources, describing these as the “foundation of the peoples’ spiritual ceremonies and the Dine life way.”²²⁹ In particular, “it is the duty and responsibility of the Dine to protect and preserve the natural world for future generations.”²³⁰ The Navajo Nation Tribal Council also selectively references other parts of Title 1, including the Traditional laws of the Navajo people, which require that the Navajo people be “respected, honored and protected with a healthy physical and mental environment” and principles of the Dine Natural Law, which instruct people about “harmful substances” within the Earth that should not be disturbed. The Council concludes that uranium extraction “should be avoided as traditional practice and prohibited by Navajo law.”²³¹

The Dine Natural Resources Protection Act is an active assertion of tribal sovereignty to protect the reservation environment and tribal members from the documented and

224. Johnston & Dawson, *supra* note 208, at 147.

225. EPA Superfund Record of Decision, EPA/ROD/R06-88/044 (1988), available at <http://www.epa.gov/superfund/sites/rods/fulltext/r0688044.pdf>.

226. *Id.*

227. ROYSTER & BLUMM, *supra* note 140, at 353 (explaining issues and citing PETER H. EICHSTAEDT, *supra* note 209.)

228. NAVAJO NATION CODE ANN. tit. 18, § 1301 (2008).

229. tit. 18, § 1301(B).

230. *Id.*

231. tit. 18, §§ 1301(C), (D).

severe harms associated with uranium mining. The Act proclaims that “[n]o person shall engage in uranium mining or uranium processing on any sites within Navajo Indian country.”²³² “Navajo Indian Country” is defined to include “all lands within the territorial jurisdiction of the Navajo Nation as defined in 7 N.N.C. § 254 and 18 U.S.C. § 1151.”²³³ Significantly, the Navajo Nation Council did not limit the jurisdiction of the Nation to the federal definition of “Indian Country.” Instead, the Council co-joined the federal and tribal provisions to describe “Navajo Indian Country.” Section 1151 of the U.S. Code defines “Indian Country” to include land within an Indian reservations, allotments held in Indian title, and “dependent Indian communities.”²³⁴ Title 7 of the Navajo Nation Code, in comparison, defines the territorial jurisdiction of the Navajo Nation broadly to include:

all land within the exterior boundaries of the Navajo Indian Reservation or of the Eastern Navajo Agency, all land within the limits of dependent Navajo Indian communities, all Navajo Indian allotments, all land owned in fee by the Navajo Nation, and all other land held in trust for, owned in fee by, or leased by the United States to the Navajo Nation or any Band of Navajo Indians.²³⁵

The United States Supreme Court has held that tribes do not retain full jurisdictional authority over non-Indians on fee land within the reservation,²³⁶ and has also determined that section 1151 describes the federal government’s jurisdictional authority within the reservation and not necessarily the jurisdiction of Indian tribes. In addition, the Supreme Court has issued a restrictive definition of “dependent Indian community,” which has impacted tribal claims to jurisdiction outside the reservation.²³⁷ Thus, to the extent that lands within the reservation are owned by non-Indians, and to the extent that a tribe seeks to regulate outside the reservation, there will be a separate legal analysis of tribal jurisdiction. For fee lands within the reservation, the extremely dangerous nature of uranium mining would seem to fall automatically within the *Montana* exception for tribal jurisdiction over nonmember activities that pose substantial threats to important tribal

232. tit. 18, § 1303.

233. tit. 18, § 1302(A).

234. 18 U.S.C. § 1151 (2000).

235. NAVAJO NATION CODE ANN. tit. 7, § 254 (2008).

236. *Montana*, 450 U.S. at 557.

237. *See, e.g., Alaska v. Native Vill. of Venetie Tribal Gov’t*, 522 U.S. 520, 527 (1998).

interests. However, for lands outside the Navajo Nation's reservation, the jurisdictional questions will be different.

A controversy arose over one such parcel of land, owned by Hydro Resources, Inc. ("HRI") near Churchrock, New Mexico, in an area southeast of the reservation boundary (section 8).²³⁸ In 1989, the New Mexico Environmental Department ("NMED") approved a "discharge plan" for HRI in connection with the company's proposed plan to commence uranium mining, and applied to the EPA for an aquifer exemption in the area where the mining would occur.²³⁹ The EPA approved the request, and then HRI requested an extension of the permit to a second site (Section 17).²⁴⁰ The surface rights of Section 17 are owned primarily by the United States in trust for the Navajo Nation.²⁴¹ However, the mineral rights and some surface rights are owned by HRI.²⁴² This separation is an example of a "split estate." After a hearing and comment period, the EPA determined that Section 17 constituted "Indian land under the agency's underground injection control ("UIC") program," and the agency declined to approve the extension.²⁴³ The state of New Mexico, however, continued to process HRI's permit after the NMED found that the site was not "Indian Country" for purposes of state regulatory authority.²⁴⁴ After a series of negotiations, the EPA actually reversed its earlier determination that Section 8 was not Indian Country and found that the agency should have authority to administer the UIC program in collaboration with the Navajo Nation.²⁴⁵ HRI appealed, and the 10th Circuit Court of Appeals upheld the EPA's determination that Section 8 is located within "a dependent Indian community."²⁴⁶

The Court of Appeals noted that Section 8 is located near, but not within, the Navajo Reservation, in a "checkerboard" area of mixed Indian and non-Indian land title that is contained within the geographic boundaries of the Church Rock Chapter of the Navajo Nation.²⁴⁷ The Court relied on the test for "dependent Indian Community" set forth in *Alaska v. Native Village of Venetie*, which requires that the lands must have been

238. Cooley, *supra* note 170, at 396.

239. *Id.*

240. *Id.*

241. *Id.*

242. Cooley, *supra* note 170, at 396.

243. *Id.*

244. *Id.* at 397.

245. *Id.*

246. *Hydro Res., Inc. v. U.S. Envtl. Prot. Agency*, 562 F.3d 1249, 1254 (10th Cir. 2009).

247. *Id.* at 1254-55.

“set aside by the Federal Government for the use of Indians as Indian land,” and that they must also be under “federal superintendence.”²⁴⁸ However, the Court found that the precedents within the Tenth Circuit require the court to first identify the appropriate “community of reference,” which, in this case, would be the Church Rock Chapter.²⁴⁹ The Church Rock Chapter has definite geographic boundaries, a population that is ninety-seven percent Navajo, and a large portion of the residents are engaged in a traditional economy that involves livestock raising and “sale of traditional crafts.”²⁵⁰ The Court held that *Venetie* had not abrogated the Tenth Circuit’s “community of reference” test.²⁵¹ Applying the *Venetie* factors to the Church Rock Chapter demonstrated that seventy-eight percent of the land within the Chapter was “set aside” for the Navajo Nation or individual Navajos by the federal government” and that the federal government retains title to ninety-two percent of the property in the Chapter and actively “superintends” the land for the benefit of the Navajo Nation, its members, and/or individual Navajo allottees.²⁵²

The issue may continue to inspire controversy because HRI owns several sites in the checkerboard area, where lands in Indian title are interspersed with fee lands, and all of these lands are located within an aquifer system which is the source of drinking water for the estimated 12,000 people in the region.²⁵³ Although HRI argues that its technology does not pose the same environmental risks as open-pit mining, there are substantial risks to the drinking water supply and other operations by HRI’s parent company in Texas have resulted in spills and contaminated water.²⁵⁴ These issues illustrate the sensitive nature of the “cooperative federalism” encouraged by federal pollution control statutes. In this case, the Navajo Nation’s sovereign decision to ban uranium mining within Navajo Indian Country is supported by the EPA’s willingness to protect the integrity of drinking water consumed by Navajos in the disputed area for purposes of the SDWA UIC program.²⁵⁵ The state of New Mexico, however, argues that it is the appropriate regulatory body and is willing to issue permits to HRI.²⁵⁶ The

248. *Id.* at 1261 (quoting *Alaska*, 522 U.S. at 527).

249. *Id.* at 1263.

250. Hydro Res., 562 F.3d at 1263.

251. *Id.* at 1265.

252. *Id.* at 1267–68.

253. Cooley, *supra* note 170, at 398–401.

254. *Id.* at 398–99.

255. *See id.* at 418.

256. *Id.* at 418–20.

sovereignty issue here is directly related to the environmental justice issue. Thus, Section 8 is located within a “dependent Indian community,” subject to EPA regulation.²⁵⁷

D. Coal Mining

In contrast to its position on uranium mining, the Navajo Nation has made a conscious decision to pursue the development of coal resources on the reservation and to allow additional coal-fired power plants to be built on the reservation.²⁵⁸ As documented above, there is a long history of coal mining on the Navajo Nation, and on many other Indian reservations, because of the United States government’s policy to support mineral extraction on tribal lands.²⁵⁹ The Black Mesa region, which is on the western portion of the Navajo Nation and also encompasses ancestral lands of the Hopi Tribe “is the location of some of the largest coal deposit in the United States, with approximately twenty-one billion tons of coal” possessing a long-term value estimated in the range of \$100 billion dollars.²⁶⁰ The mineral estate is jointly owned by the Navajo Nation and the Hopi Tribe, and the dispute between the two tribes over the surface rights resulted in the 1974 Navajo-Hopi Settlement Act.²⁶¹ The 1974 Act is notable because it effectuated a legal partition of reservation land held in common ownership by the two tribes, and it resulted in the forcible removal of approximately 12,000 tribal members from their homes and traditional lands.²⁶²

Peabody Western Coal Company began strip mining coal on Black Mesa in 1968.²⁶³ For thirty years, the coal was transported to the Mohave Generating Station in Laughlin, Nevada, via a 273 mile long pipeline that “slurried” the coal by pumping billions of gallons of valuable groundwater from the aquifer under Black Mesa.²⁶⁴ The Kayenta Mine, also on Black Mesa, supplies the Navajo Generating Station.²⁶⁵ The EPA maintained that the Mohave Generating Station discharged

257. Cooley, *supra* note 170, at 419.

258. See Tsosie, *Tribal Environmental Policy*, *supra* note 125, at 308.

259. *Id.* at 301.

260. SourceWatch, Coal and Native American Tribal Lands, http://www.sourcewatch.org/index.php?title=Coal_and_Native_American_tribal_lands (last visited Oct. 28, 2009) (excerpting several news bulletins on power plants in Indian Country).

261. See, e.g., *Secakuku v. Navajo Nation*, 964 F. Supp. 1359 (D. Ariz. 1997).

262. SourceWatch, *supra* note 260.

263. *Id.*

264. *Id.*

265. *Id.*

more air pollutants than any other power plant in the Western United States.²⁶⁶ Even when sued for violations under the Clean Air Act, the owners of the plant refused to upgrade the facility to acceptable levels.²⁶⁷ The Mohave Generating Station was shut down in 2005, both as a result of the lawsuit and also because both the Navajo and Hopi Tribes ended Peabody's use of groundwater in the Black Mesa aquifer.²⁶⁸ Although environmental activist organizations, including some Native American activist organizations, were pleased with the closure of the Mohave Generating Station; the economic impacts were significant for the Navajo Nation and the Hopi Tribe.²⁶⁹ It is estimated that royalties and taxes from the mines on Black Mesa contributed about eighty percent of the annual budget of the Hopi Tribe and about sixty percent of the Navajo general fund budget.²⁷⁰ In addition, the mines are a significant source of employment for Navajo and Hopi individuals in a region where the unemployment rate is close to forty percent.²⁷¹

In an effort to mitigate some of the economic harms caused by the plant's closure, the Just Transition Coalition ("JTC") was created by the Sierra Club, along with a coalition of other environmental groups (Indigenous Environmental Network, Honor the Earth Foundation, Apollo Alliance, Black Mesa Water Coalition, To'Nizhoni Ani, and Grand Canyon Trust).²⁷² The Coalition has proposed reinvesting revenues from the sale of the Mohave plant's pollution credits into developing renewable energy sources on tribal lands as well as offsetting the economic impact from the closing of the station.²⁷³ Since the closure of the plant in 2005, the majority owner of the plant, Southern California Edison ("SCE") has accrued pollution credits worth about thirty million dollars annually, which can be sold under the U.S. Acid Rain Program.²⁷⁴ On January 11, 2006, the JTC filed a motion with the California Public Utilities Commission proposing to direct thirty percent of the pollution credit proceeds to local Hopi villages and chapters of the Navajo Nation to invest in solar, wind and ecotourism; ten percent to be directed to job retraining; forty percent for alternative energy development and production; and twenty percent to the tribal governments

266. SourceWatch, *supra* note 260.

267. *Id.*

268. *Id.*

269. *Id.*

270. SourceWatch, *supra* note 260.

271. *Id.*

272. *Id.*

273. *Id.*

274. SourceWatch, *supra* note 260.

themselves to partially compensate for the loss of royalty income.²⁷⁵ Southern California Edison argued that the proceeds should be given over to ratepayers.²⁷⁶ The Commission responded by ordering Southern California Edison to place the proceeds from the pollution allowances into a special account to be used to fund renewable energy investment opportunities for the Navajo Nation and the Hopi Tribe, and scheduled a mediation in order to secure agreement among the interested parties in the specific components of the plan.²⁷⁷

The JTC proposal is politically quite interesting. It is premised on a platform of environmental justice and posits that SCE and its ratepayers received the primary benefit of the Mohave Generating Station, while the costs of closure fell disproportionately on the Navajo and Hopi communities that served the plant. Thus, the proceeds from the pollution allowances should be used to benefit the Navajo and Hopi people. However, another facet of the environmental justice argument contends that coal exploitation is exacerbating global warming, and that the environmental costs of coal mining, as well as the harms of global warming, will disproportionately affect Native American communities.²⁷⁸ Thus, the JTC proposal is designed to promote renewable energy projects, primarily at the local level, generating energy compliance with the renewable energy portfolios being developed by states such as California.²⁷⁹ Tribal leaders of the Navajo Nation and the Hopi Tribe do not necessarily agree with these constraints, believing instead that it is the sovereign right of the tribal governments to decide whether and how to cultivate renewable energy.²⁸⁰

In fact, the Navajo Nation has made a conscious decision to move forward with a partnership with Desert Rock Energy Company, a subsidiary of Sithe Global Power Co., to build a new coal-fired power plant in the Four Corners area.²⁸¹ The Dine Power Authority, which is a commercial enterprise of the Navajo Nation, has already entered into a project agreement with

275. *Id.*

276. *Id.*

277. *Id.*

278. SourceWatch, *supra* note 260.

279. *Id.*

280. *See id.*

281. Press Release, Navajo Nation, Navajo Nation President Joe Shirley, Jr., Welcomes Air Permit for Desert Rock Energy Project After Four Year Wait, Delays (July 31, 2008), *available at* <http://www.navajo.org/News%20Releases/George%20Hardeen/July08/President%20Shirley%20welcomes%20air%20permit%20for%20Desert%20Rock%20for%20July%2031.pdf>.

Desert Rock Energy.²⁸² Environmentalists have expressed concern that the proposed power plant will be within a twenty mile radius of the Four Corners and San Juan Power Plants, and the cumulative effect of this concentration of power plants is likely to pose significant impacts to human health, in terms of air quality, soil contamination (an estimated seventy million tons of coal combustion waste, contaminated with cadmium, selenium, arsenic and lead, has already been dumped into the Navajo coal mine and the San Juan mine is the repository of at least an equal amount of toxic sludge) and water contamination.²⁸³ Even assuming that each power plant is successful in limiting its emissions of mercury to the current legal level, what happens if three power plants are emitting that level within a twenty mile radius?

The Four Corners power plant, which is one of the largest coal-fired power plants in the country, is located on Navajo land in Fruitland, New Mexico.²⁸⁴ The plant is operated by Arizona Public Service Co. under a lease with the Navajo Nation, which provides lease revenues and also secures an employment preference for tribal members.²⁸⁵ The electricity from the 2,040 megawatt plant, however, predominantly services consumers off the reservation, in Arizona, New Mexico, California and Texas.²⁸⁶ The environmental impact of this plant is not insignificant; it emits 157 million pounds of sulfur dioxide, 122 pounds of nitrogen oxides, eight million pounds of soot, and 2,000 pounds of mercury annually.²⁸⁷ The San Juan generating station is located just off the reservation, in Farmington, New Mexico.²⁸⁸ The San Juan facility is an 1,800-megawatt plant, which “emits approximately 100 pounds of sulfur dioxide, 100 million pounds of nitrogen oxides, six million pounds of soot, and at least 1,000 pounds of mercury per year.”²⁸⁹ “The Desert Rock Power Plant is a proposed 1,500 megawatt coal-fired facility, to be sited in two 750-megawatt boilers, encompassing roughly 580

282. *Oversight Hearing on Indian Energy Development—Regaining Self-Determination Over Reservation Resources: Testimony before the Senate Committee on Indian Affairs*, 110th Cong. 1 (2008) [hereinafter *Oversight Hearing*] (statement of Steven C. Begay, Gen. Manager, Dine Power Authority).

283. SourceWatch, *supra* note 260.

284. *Id.*

285. See APS, *About APS: Power Plants*, http://www.aps.com/general_info/AboutAPS_18.html. (last visited Oct. 28, 2009).

286. SourceWatch, *supra* note 260.

287. *Id.*

288. ECOS CONSULTING, ENERGY AND ECONOMIC ALTERNATIVES TO THE DESERT ROCK ENERGY PROJECT 7 (2008), available at http://www.dinecare.org/pages/Coal/pdfs/Alternatives_to_Desert_Rock_Executive_Summary.pdf.

289. SourceWatch, *supra* note 260.

acres of the Burnham chapter of the Navajo Nation, located about thirty miles southeast of Farmington.”²⁹⁰ Proponents of the plant say that it has been designed according to the best available technology and “would be one of the cleanest coal-fired power plants in the nation.”²⁹¹ Desert Rock Energy Co. claims that new technologies provide an eighty-five percent savings in water use and a twenty percent reduction in GHG emissions over prior technologies.²⁹² Nevertheless, the plant is expected to discharge ten million tons of CO₂ annually, and about 114 pounds of mercury into the air.²⁹³ Opponents of the plant contend that the CO₂ emissions from the plant will cancel savings proposed by the state of New Mexico’s mitigation plan for GHG emissions, which is scheduled to take effect by 2012.²⁹⁴ They also propose that unless the EPA takes measures to control mercury emissions at the plant, this will increase the total CO₂ emissions in the state of New Mexico by forty percent.²⁹⁵ The cost of construction is estimated to be nearly three billion dollars.²⁹⁶ The joint venture is intended to sell power to major power companies in the southwest, including Arizona Public Service in New Mexico and the Salt River Project.²⁹⁷

The EPA issued an air permit for the Desert Rock Power Plant in July 2008, after a lengthy five-year process and a lawsuit by Dine Power Authority (“DPA”) and Sithe to compel action on the permit that culminated in a consent decree ordering the EPA to issue its permit by July 31.²⁹⁸ Navajo Nation President Joe Shirley commended the Agency for granting the approval, after a four year wait, stating that: “As a Nation, we’re working very hard toward standing on our own two feet and this permit goes a long ways toward bringing all that into fruition.”²⁹⁹ Doug MacCourt, an attorney representing the Dine Power Authority, stated, “this project is not just about energy. It is about tribal sovereignty, about independence, and

290. *Id.*

291. *EPA Seeks Remand of Permit for Coal Plant*, ARIZ. REPUBLIC, Apr. 28, 2009, at B4, available at <http://www.azcentral.com>; Press Release, Navajo Nation, *supra* note 282.

292. *Id.*

293. Jay W. Sharp, *The Desert Rock Power Plant: Economic Boon or Cultural and Environmental Disaster for the Navajos?*, <http://www.desertusa.com/mag07/nov07/desertrockplant.html> (last visited Oct. 28, 2009).

294. *Id.*

295. *Id.*

296. Press Release, Navajo Nation, *supra* note 282.

297. Brenda Norrell, *Policy Debate: Power Plants on Navajo Land*, MSNBC, June 9, 2005, <http://www.msnbc.msn.com/id/8161048>.

298. Press Release, Navajo Nation, *supra* note 282.

299. *Id.*

the quality of life for an entire nation.”³⁰⁰ According to DPA, the project is expected to create about 1,000 jobs in the four year construction phase of the power plant, and more than 400 permanent jobs.³⁰¹ Proponents state that the plant will contribute more than fifty million dollars annually to the Navajo Nation in direct economic benefits.³⁰²

The State of New Mexico, joined by several conservation groups, sought administrative review, citing concerns over air quality, carbon dioxide emissions and violations of the Endangered Species Act.³⁰³ In approving the permit, Region 9 of the EPA stated that it would not include limitations on CO₂ emissions, although the Supreme Court had already determined in *Massachusetts v. EPA* that the agency had this authority under the CAA.³⁰⁴ On January 7, 2009, the Region 9 EPA office withdrew the portion of the air quality permit related to CO₂ emissions, drawing on the Environmental Appeals Board’s earlier decision in *In re Desert Power Electric Cooperative* which found that the EPA is no longer required to follow the historic agency interpretation of “subject to regulation” used in the

300. *Id.*

301. *Id.*

302. Press Release, Navajo Nation, *supra* note 282.

303. See, e.g., Letter from Bill Richardson, Governor of New Mexico, to Stephen L. Johnson, United States Environmental Protection Agency (June 19, 2008) available at <http://yosemite.epa.gov> (noting that “[the State of New Mexico has] serious concerns about the environmental impacts of constructing Desert Rock in a region already impaired by other large coal-fired power plants. Mercury contamination from Desert Rock poses a particular concern. Nearly every reservoir in New Mexico and stretches of the San Juan River already suffer from high levels of mercury contamination and the addition of another significant source of mercury will set back our efforts to correct this situation”); Motion of National Parks Conservation Association for Leave to File a Brief as Amicus Curiae in Support of the Conservation Petitioners, *In re Desert Rock Energy Co.*, PSD Permit No. AZP 04-01 (Jan. 7, 2009), <http://yosemite.epa.gov> (requesting that the permit “should be remanded with instructions that the Region should issue the permit only if it develops an adequate, model-supported mitigation plan and after full and fair consideration of new ozone information”).

304. Compare Letter from Attorneys General of New York, California, Connecticut, Delaware, Maine, Massachusetts, Oregon, and Vermont, to Joseph Lapka, Air Permitting Program, U.S. Environmental Protection Agency, Region 9 (Mar. 25, 2009), <http://yosemite.epa.gov> (noting that the Addendum to Region 9’s Statement of Basis for the Desert Rock power plant erroneously “relies upon a December 18, 2008 memorandum authored by former Administrator Johnson entitled “Interpretation of Regulations that Determine Pollutants Covered by the Federal PSD Program,” (“Johnson Memo”) as the basis for declining to require that Desert Rock implement the Best Available Control Technology (“BACT”) to limit the plant’s emissions of carbon dioxide (CO₂) . . . conclud[ing] that CO₂ is not a pollutant ‘subject to regulation’ under the Clean Air Act (‘Act’), with *Mass. v. E.P.A.*, 549 U.S. 497, 501 (2007) (holding that “EPA’s alternative basis for its decision—that even if it has statutory authority to regulate greenhouse gases, it would be unwise to do so at this time—rests on reasoning divorced from the statutory text.”).

regulatory definition of the term “regulated NSR pollutant.”³⁰⁵ Region 9 intends to prepare a new statement of basis addressing the issue of whether the permit should contain an emissions limitation for carbon dioxide.³⁰⁶ Then, “Region 9 will provide notice of this revised statement of basis and provide an opportunity for public comment.”³⁰⁷ On January 22, 2009, the U.S. Environmental Protection Agency Appeals Board agreed to review the EPA’s approval of the air quality permit for the Desert Rock Power Plant, with the exception of the CO₂ emissions portion which was already withdrawn from the permit.³⁰⁸ However, on April 27, 2009, the EPA asked the Appeals Board to allow the agency to reconsider the air permit it had issued the prior year, prompting President Joe Shirley to request a meeting with President Barack Obama.³⁰⁹ President Shirley maintained that the issue “isn’t just about energy,” but about tribal “sovereignty . . . This is about the Navajo Nation regaining its independence by developing the financial wherewithal to take care of its own problems.”³¹⁰

What will happen in the review process? The Bureau of Indian Affairs prepared the Environmental Impact Statement (“EIS”) for the Desert Rock Power Plant.³¹¹ The draft EIS analyzed the effects of a 1,500-megawatt pulverized coal power plant, a 500-megawatt pulverized coal power plant, and a no action alternative, and endorsed the 1,500-megawatt alternative.³¹² Region 9 of the EPA reviewed the EIS and noted in a letter of comment that there were certain deficiencies in the draft EIS, including the need for a more comprehensive evaluation of the potential impacts from placement of coal combustion byproducts (“CCBs”) in Navajo Mine, including potential impacts on groundwater resources and also the impact

305. See *In re* Desert Rock Energy Co., PSD Permit No. AZP 04-01 (Jan. 7, 2009) available at [http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Filings%20By%20Appeal%20Number/B30926B8652242FD85257538006216C2/\\$File/Withdraw%20of%20Permit%20...60.pdf](http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Filings%20By%20Appeal%20Number/B30926B8652242FD85257538006216C2/$File/Withdraw%20of%20Permit%20...60.pdf).

306. *Id.*

307. *Id.*

308. *In re* Desert Rock Energy Co., PSD Permit No. AZP 04-01 (Jan. 22, 2009) available at [http://yosemite.epa.gov/oa/eab_web_docket.nsf/684ABD6F91A37651852575470060A738/\\$File/Order%20Granting%20Review%20...99.pdf](http://yosemite.epa.gov/oa/eab_web_docket.nsf/684ABD6F91A37651852575470060A738/$File/Order%20Granting%20Review%20...99.pdf).

309. *EPA Seeks Remand of Permit for Coal Plant*, *supra* note 292.

310. *Id.*

311. See Letter from Nova Blazej, Manager, Environmental Review Office, EPA to Harrilene Yazzi, BIA, Navajo Regional Office (Aug. 24, 2007) available at <http://www.epa.gov/region09/nepa/letters/DesertRockDEIS.pdf> (regarding Draft Environmental Impact Statement, Desert Rock Energy Project).

312. *Id.*

assessment for particulate matter, given the impacts of commuter road use on unpaved roads and the assessment of mercury emissions.³¹³ The appended analysis notes that, given the advanced pollution control technology of the proposed Desert Rock facility, the ash resulting from the plant will likely have higher metals concentrations, and that technology designed to mitigate mercury emissions would also increase mercury levels in the CCBs.³¹⁴ The report further observes the cultural significance of groundwater resources, and suggests that all prospective groundwater monitoring commitments should be detailed together in the final EIS as mitigation.³¹⁵ The EPA's commentary largely focuses on the scientific aspects of the draft EIS and notes where the projected conclusions might be unsupported by the scientific analysis.

Much of the discussion is beyond the comprehension of a layperson, and it is difficult to criticize either the conclusions of the BIA in the draft EIS or of the EPA in its critique without knowing the science. However, the commentary is quite interesting in two respects relevant to the environmental justice inquiry. First, the commentary observes with respect to public health, that the draft EIS identifies health risks from ground-level ozone, given the fact that current ozone levels in the Four Corners region are approaching maximum federal and state standards.³¹⁶ The draft EIS apparently only analyzes ozone emissions from the plant and not the vehicles that will access the plant and also concludes that there are no studies showing that the communities in the area have higher susceptibility to particulate emissions than any other population in the United States.³¹⁷ The EPA commentary calls for an updated discussion of "susceptible subpopulations," calling attention to a study by the U.S. Geological Service noting that people living in Shiprock are more than five times more likely to be seen for respiratory complaints than are residents of nearby communities though this study posited that use of indoor coal-burning stoves was a likely cause.³¹⁸ The question that emerges here is whether adequate epidemiological studies even exist that document the health impacts of power plants upon Navajo residents in the Four Corners region. There are no epidemiological studies of the impacts of uranium mining on Native populations, for example, even though the majority of uranium mining in the country has

313. *Id.*

314. *Id.*

315. Letter from Nova Blazej to Harrilene Yazzi, *supra* note 312.

316. *Id.*

317. *Id.*

318. *Id.*

taken place on Indian reservations through the employment of Native miners.³¹⁹

What are the health impacts of coal mining and of coal-fired power plant operation? One news report noted that mercury contamination in the Four Corners region led the state of New Mexico to warn residents against eating catfish and carp from the San Juan River.³²⁰ However, the river passes through the reservation and is used by Navajo fishermen to feed their families.³²¹

In the “environmental justice” section of the letter from Blazej, the EPA “has encouraged the BIA to work with the Tribe” to ensure that local residents have access to power within the project area.³²² The report also encourages “mitigation” to the local community through residential solar, wind or other electrical generation projects that might minimize local reliance on diesel generators and coal-burning stoves, which also have health impacts.³²³ The commentary also queries whether the holders of homesites, grazing permits, and customary use areas located within the Power Plant lease area will be compensated for their relocation and loss of their grazing areas, homes, and other improvements.³²⁴ The letter notes that under Title 13 of the Navajo Tribal Code, owners of surface use rights are to be compensated for the loss of the rights, but the commentary observes that there is no discussion in the draft EIS of what this compensation would entail and which users are eligible for compensation.³²⁵ It should be noted that the U.N. Declaration on the Rights of Indigenous Peoples identifies involuntary relocation of indigenous peoples as a serious human rights issue and counsels nation-states to avoid this if at all possible, and if it is not possible (for example, in cases of natural disaster such as flooding) specifies that indigenous peoples must be compensated for this loss with equivalent lands or other compensation.³²⁶ It is unclear whether the same human rights principles ought to apply in an action taken by an Indian nation in exercise of tribal self-determination. Do affected community members have any

319. Cooley, *supra* note 170, at 398–401.

320. Felicity Barringer, *The Energy Challenge: Navajos and Environmentalists Split on Power Plant*, N.Y. TIMES, July 27, 2007 at A14.

321. *Id.*

322. Letter from Nova Blazej to Harrilene Yazzi, *supra* note 312, at 8.

323. *Id.*

324. *Id.*

325. *Id.*

326. See Tsosie, *Indigenous People*, *supra* note 5, at 1664–65.

right to resist relocation ordered by the tribe? What if the community members also dissent from the planned action?

There are other cases of community dissent to a tribal council decision. For example, on the Rosebud Sioux reservation, tribal members successfully overturned an earlier tribal council decision to construct a massive hog feed lot that would have permanently ruined the land and environment for local residents.³²⁷ There is active resistance to the Desert Rock Power Plant, both by affected individuals who are members of the Navajo Nation and by environmental organizations, both Native and non-Native.³²⁸ One group, Dine Citizens Against Ruining our Environment (“Dine CARE”) worked with a set of consultants to generate the Report on Energy and Economic Alternatives to the Desert Rock Energy Project.³²⁹ The Report Summary is written within a framework of Navajo thought that emphasizes balance, beauty, respect and the need to put things right.³³⁰ The Report notes the “environmental wounds and historical trauma incurred” from extractive mining industry as a result of an imposed western energy paradigm on the Navajo Nation and says that this must now be “counterbalanced with sustainable technologies, energy policies, and environmental protections which promote a healthy economy” for the Dine.³³¹ The Report notes that there are thirty-three existing coal-fired power plants in the American Southwest and another nineteen proposed power plants for this area.³³² The Report notes that if the cost of carbon capture is included in plant costs, the cost of coal plants such as Desert Rock rapidly shifts from being one of the least expensive to one of the most expensive of the fossil fuel generating options.³³³

The Report advocates development of wind and solar energy in the Navajo Nation, and the construction of natural gas facilities, instead of further coal-fired power plants, claiming that this would give the same, if not greater, economic returns to the Navajo Nation, particularly if future regulation of CO₂

327. *Rosebud Sioux Tribe v. McDivitt*, 286 F.3d 1031, 1035 (8th Cir. 2002).

328. See, e.g., Letter from Winona LaDuke, Executive Director, *Honor the Earth*, to Joe Shirley, President, Navajo Nation (Oct. 4, 2007), available at http://www.desert-rock-blog.com/blog_archives/2007/10/13/3289431.html (requesting that the Navajo Nation invest in renewable energy and not invest in the proposed Desert Rock power plant); Andy Bessler, *Chapter Sues EPA over Four Corners Coal-Fired power Plant*, Rio Grande Sierran 1 (2006), http://newmexico.sierraclub.org/newsletters/rgsierran_06_09-10_wb.pdf.

329. See ECOS CONSULTING, *supra* note 289.

330. *Id.* at 3.

331. *Id.* at 13.

332. *Id.*

333. ECOS CONSULTING, *supra* note 289, at 63.

emissions makes operating the plant very costly.³³⁴ The Report claims that this will be economically profitable, create even more jobs, would be environmentally friendly, and also consistent with Navajo Fundamental Laws, which speak of the beneficial powers of wind and sun, as well as the care to be taken with the earth.³³⁵

The Report further notes that the health costs of an additional power plant have not been fully evaluated and should be factored into the Navajo Nation's ultimate calculation.³³⁶ This point was also made in a letter authored by Native environmental activist and economist, Winona LaDuke, to President Shirley, on behalf of her organization, Honor the Earth, and supported by several local groups opposing the plant.³³⁷ LaDuke anticipates that the current Navajo Nation health budget of nearly twenty-two million dollars will need to expand with the addition of the Desert Rock power plant and cites data on cancer statistics due to contamination of air and water.³³⁸ She observes the trend among states to insist upon purchase of substantial percentages of renewable energy and says that "with Desert Rock, you will create a monster that you cannot sell."³³⁹

The ultimate fate of Desert Rock power plant is still uncertain. Some take the perspective that, as a "National Sacrifice Area," the Four Corners region is already environmentally degraded and so the cumulative impacts of yet another power plant are not a substantial concern.³⁴⁰ Some supporters of the plant also argue that the plant could be retrofitted to reduce carbon emissions by capturing them and injecting them deep into the ground.³⁴¹ This type of carbon capture and sequestration technology would cost an additional one billion dollars, and the environmental impacts of geologic sequestration are unclear.³⁴² The Dine Power Authority has taken the position that even if carbon capture and sequestration technology is feasible, "only the Federal government is in a

334. *Id.*

335. *Id.* at 70–71.

336. *Id.* at 97.

337. Letter from Winona LaDuke to Joe Shirley, *supra* note 329.

338. *Id.*

339. *Id.*

340. See Nathan Coe, *Resisting Desert Rock*, GUERRILLA NEWS NETWORK, Mar. 5, 2007, available at, http://shiftshapers.gnn.tv/articles/2962/Resisting_Desert_Rock.

341. *Oversight Hearing*, *supra* note 283, at 4.

342. Desert Rock Energy Co., IGCC, Desert Rock v. Recent IGCC Permit, <http://www.desertrockenergyproject.com/igcc.htm>.

position to address these issues.”³⁴³ Steven Begay of the DPA stated in his Congressional testimony that the federal government can honor its trust responsibility to the Navajo people by authorizing the air permit for Desert Rock.³⁴⁴ If Congress wants to “aggressively finance carbon capture and sequestration demonstration projects, Desert Rock is perfectly situated to be one of these projects.”³⁴⁵ Begay also asked Congress to “create and expand preference contracts for purchase of tribal energy” so that tribal power projects are used to supply power to federal agencies, such as defense agencies, that have “large energy demands.”³⁴⁶ Under this view of environmental justice, Congress should promote development of the Navajo Nation’s coal reserves, and it is the responsibility of the federal government to pay for carbon capture and sequestration technology, so that the costs of “clean energy” do not impair tribal profits.³⁴⁷

According to Begay’s testimony, the Navajo Nation’s decision to participate in renewable energy projects appears to be based on a utilitarian cost-benefit analysis. If it is more expensive to engage in renewable energy, then the Nation should refrain from such an action, unless it is subsidized by the federal government.³⁴⁸ Significantly, the BIA’s draft EIS for Desert Rock deems the use of alternative energy sources to be “unfeasible” because this would not allow the economic development of valuable coal resources on the Navajo Nation.³⁴⁹ The BIA’s reasoning is consistent with several generations of federal policy encouraging tribes to develop their coal resources to serve the energy needs of the American people.³⁵⁰ Of course, one could make the same argument about uranium at some point if the national demand for nuclear energy becomes compelling and if federal regulation of CO₂ emissions makes coal mining less economically profitable.

Notably, the Navajo Nation has taken steps to develop alternative energy resources. For example, the Dine Wind Project is a collaborative effort by the Dine Power Authority and Citizens Energy Corporation to produce approximately 200

343. *Oversight Hearing, supra* note 283, at 4.

344. *Id.* at 5.

345. *Id.*

346. *Id.*

347. *Oversight Hearing, supra* note 283, at 3.

348. *Id.*

349. OMAR BRADLEY, REGIONAL DIRECTOR, BUREAU OF INDIAN AFFAIRS, NAVAJO REGION, DRAFT ENVIRONMENTAL IMPACT STATEMENT 2-33 (2007), <http://www.desertrockenergyeis.com/documents/presentations/Chapter%202%20-%20Alternatives.pdf>.

350. Tsosie, *Tribal Environmental Policy, supra* note 125, at 301.

megawatts of energy through cultivating wind resources on the Navajo Nation.³⁵¹ The Dine Power Authority has also contracted with a corporation to produce solar energy, in response to estimates that the Navajo Nation could produce more than 48,000 megawatts of solar energy.³⁵²

The Navajo Nation case study indicates the complexity of tribal environmental decision-making. Indian nations must deal with the legacy of past federal policies, and yet they have the sovereign capacity to set the relevant pollution control standards for the reservation in order to protect tribal members, lands, and resources. Indian nations which possess valuable reserves of coal, gas, and uranium will always be pressured to exploit those resources for the benefit of the country as a whole. However, unlike past generations, Indian nations are now in a position to exercise self-determination and assess for themselves the relevant costs and benefits of a decision to engage in mining. The Navajo Nation has a complex set of environmental laws and traditional ethics that have inspired the Nation to ban uranium mining, but continue coal mining and leases of tribal land for power plants. Although environmentalists may see some conflict with the Nation's commitment to protect the health of tribal members and integrity of tribal lands, the Nation has made its own calculation of the harms and benefits of this decision. Nonetheless, the Navajo Nation is subject to the laws of the United States. If Congress enacts climate change legislation that increases the cost of energy from coal-fired power plants, or if Congress subsidizes alternative forms of energy, then the utilitarian calculus will change. The Navajo Nation is selling energy within a national and global marketplace, and the economics of that marketplace are a vital component of tribal decision-making.

V. CONCEPTS OF SUSTAINABILITY: STEWARDSHIP, JUSTICE, AND AN ETHICS OF PLACE

Professor John Dernbach claims that “[t]he biggest challenge for sustainable development in coming decades will be to operationalize it: to make it occur, or to make an effective transition toward it, in communities, places, and businesses all over the world.”³⁵³ As Dernbach observes, any effort to endorse

351. Suagee & MacCourt, *supra* note 168, at 14.

352. See ECOS CONSULTING, *supra* note 289, at 55–56.

353. John C. Dernbach, *Achieving Sustainable Development: The Centrality and Multiple Facets of Integrated Decisionmaking*, 10 IND. J. GLOBAL LEGAL STUD. 247, 247 (2003).

sustainability is meaningless if it cannot be implemented through local laws and policies that change the past practices that led to the current crisis.³⁵⁴ It is unrealistic to think that an abstract international agreement promoting sustainability can inspire the type of change at the local level that is required. This level of change must be motivated from within and must make sense to the local communities. There is a preliminary obstacle, however, in that the term “sustainability” often defies explanation. There is no legal body of doctrine to guide the interpretation of sustainability.³⁵⁵ Indeed, as Dernbach notes, “the United States has no coherent overall strategy for sustainable development.”³⁵⁶ Nor is there consensus as to what sustainability really entails when separated from other terms, such as “development” or “energy use.” To some, it appears to have utility only as an “organizing principle.”³⁵⁷ Others believe that there is a normative basis for the concept of sustainability, and that one of the challenges for the future will be to elicit those norms and apply them in public policy.³⁵⁸

The literature on sustainability is complex and multifaceted, and a summary of that literature is well beyond the scope of this article. This section of the article will focus only on the role of Native peoples in crafting a norm of sustainability at the national and global levels. There is a political context for that discussion, which evokes concepts of justice; and there is a normative context for that discussion, which evokes concepts of stewardship and place. This section posits that sustainability requires an examination of the concept of “justice” concerning the historical and contemporary relationships between nations, peoples, and individuals. “Sustainability” also requires an examination of the relationship between human beings and the natural environment, which may be expressed through the concept of “stewardship” or through developing an “ethics of place” which examines specific ecosystems and the human interactions with these environments.

354. *Id.* at 247.

355. John C. Dernbach, *Toward a National Sustainable Development Strategy*, 10 BUFF. ENVTL. L.J. 69, 70–71 (2002–03).

356. *Id.* at 70.

357. Peter Page, *Green by Design: Law Schools Bring ‘Sustainability’ to Buildings, Courses*, NAT’L L.J., Jan. 14, 2008.

358. *See id.* (quoting Emeritus Professor Roy Prosterman, founder of University of Washington School of Law master’s program titled the Law of Sustainable International Development, who stated, “I hope we have enough visionary deans and faculty who are proactive in figuring out these planetary issues [and] putting them in front of the students and even in the core curriculum.” “Law schools educate a major portion of politicians and community leaders. We have a big responsibility to educate our students about these issues”).

A. *The Political Context of Sustainability: Reconceptualizing “Justice”*

As Dernbach and Bernstein note, the implementation of sustainability is best accomplished at the level of community.³⁵⁹ International constructs of sustainability provide a framework to understand the basic objectives, but are far too vague to provide adequate guidance to implement sustainability.³⁶⁰ Domestic law at the state or federal levels can facilitate change by mandating compliance standards for industries operating within the United States.³⁶¹ However, state, local, and tribal governments must develop their own normative approaches to sustainability in order to develop the integrated approaches to decision-making that Dernbach sees as pivotal to operationalize the concept.³⁶² According to Dernbach, integrated decisionmaking requires governments to engage in long-range planning, and to unify the appraisal of economic, security, environmental and social impacts.³⁶³ Fragmented decision-making occurs when governments separate the categories and make decisions according to which category seems most compelling at the time. Not surprisingly, economics often gets elevated in importance in this type of short-term decision-making.³⁶⁴

It is important to note that states and tribes are likely to have different approaches when evaluating economic, environmental and social impacts.³⁶⁵ Nonetheless, states and tribes must work cooperatively with the federal government to operationalize the concept of sustainability. As with nation-states seeking to enter into a multilateral agreement on climate change, tribes and states face challenges in cooperative decision-making due to their historical, political, and cultural differences.³⁶⁶ To illustrate the dynamics of integrated decision-making by states and tribes in an era of climate change, this section evaluates the political context for “sustainability” as the concept has developed at the international, domestic, and tribal levels.

359. John C. Dernbach & Scott Bernstein, *Pursuing Sustainable Communities: Looking Back, Looking Forward*, 35 URB. LAW. 495, 501 (2003).

360. *Id.* at 498.

361. Dernbach, *Achieving Sustainable Development*, *supra* note 354, at 251–52.

362. *Id.* at 260.

363. *Id.*

364. *Id.* at 249.

365. Dernbach, *Achieving Sustainable Development*, *supra* note 354, at 259–60.

366. *Id.* at 252.

1. The Context for Sustainability at the International Level

The concept of “sustainable development” emerged as a guiding principle for world nations who signed onto Agenda 21 at the 1992 United Nations Conference on Environment and Development held in Rio de Janeiro.³⁶⁷ A basic definition of “sustainable development” had been generated a few years prior to the 1992 Earth Summit, when the Brundtland Commission articulated its view that sustainability is achieved by “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”³⁶⁸ This view emphasizes that “development” is the conscious goal of modern societies, and the only issue is how to make development “sustainable.”³⁶⁹ As elaborated by the principles within Agenda 21, sustainability requires “intergenerational equity,” favors a conservative approach to risk through the “precautionary principle,”³⁷⁰ and requires “integration of environmental protection with conventional development.”³⁷¹ Agenda 21 sets forth a norm of social justice, advocating the improvement of the “social, economic and environmental quality of human settlements and the living and working environments of all people, in particular the urban and rural poor.”³⁷² “This view of development obviously transcends focus on economic gain, and includes issues related to the quality of human life, for both present and future generations.”³⁷³

The concept of sustainable development has been associated with the debates over climate change policy.³⁷⁴ The UN Framework Convention on Climate Change posited that signatory Parties “should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”³⁷⁵ The concept of “common, but differentiated responsibility” has been used to address the historic inequities between developing and industrialized nations.³⁷⁶ In the context of the Kyoto Protocol, this led to a system that promotes the development of

367. *Id.* at 247.

368. Dernbach & Bernstein, *supra* note 360, at 501.

369. Dernbach, *Achieving Sustainable Development*, *supra* note 354, at 248.

370. *Id.* at 255.

371. Dernbach & Bernstein, *supra* note 360, at 495.

372. *Id.* at 497.

373. *Id.* at 496.

374. See Anita M. Halvorssen, *Global Response to Climate Change—From Stockholm to Copenhagen*, 85 DENV. U. L. REV. 841 (2008).

375. United Nations Conference on Environment and Development: Framework Convention on Climate Change, May 9, 1992, art. 3(1), 31 I.L.M. 849 [hereinafter FCCC].

376. Halvorssen, *supra* note 375, at 847.

countries such as India and China, even to the extent that this leads to increases in GHG emissions, while restricting the emissions of the industrialized countries that have contributed the most to the problem and also have benefited economically from their development.³⁷⁷ The Bush Administration refused to support the Kyoto Protocol because it viewed the structure as unfair to industrialized countries and not helpful in the overall effort to control GHG emissions.³⁷⁸

At the international level, the inquiry about justice centers around the notion of equity between contemporary nation-states.³⁷⁹ There is little attention to the interests of future generations, and almost no discussion of the precautionary principle even though various models of climate change predict virtually catastrophic impacts if present emissions levels are allowed to continue.³⁸⁰ The focus is on how industrialized countries will maintain their economic position, while also allowing developing countries to industrialize in order to improve their economic position.³⁸¹ Development is the conscious goal. Environmental protection will occur only when all nations can agree on how to limit the emissions responsible for climate change. It is significant to note that, at the international level, the discussion can be quite abstract, dealing with equities between nations designed to preserve or enhance economic position.³⁸² At the global level, the discussion is not centered around an “ethics of place” and there is no focus on preserving particular ecosystems or ensuring the survival of specific ways of life.³⁸³ The role of individuals, communities, and groups in developing a notion of “environmental stewardship” is also absent, although international human rights law can be employed to highlight the interests of vulnerable communities, as outlined in the first part of this article.³⁸⁴

377. *Id.* at 842–43.

378. *See id.* at 842, 850 (noting that “the United States is not willing to commit to mandatory cuts in GHGs, and hence has not ratified the Kyoto Protocol”).

379. *Id.* at 847.

380. *See generally* Burns H. Weston, *Climate Change and Intergenerational Justice: Foundational Reflections*, 9 VT. J. ENVTL. L. 375, 375, 380 (2008) (noting the absence of legal protection for the rights of future generations and making an argument “*in theory* that future generations can have a legal right to protection from climate change harms, both abrupt and normal, and that the ecological rights of future generations can define the ecological duties of present generations”).

381. *See id.* at 847, 850.

382. *See* Halvorssen, *supra* note 375, at 847.

383. *See id.* (discussing how treaties are based on principle of sovereign equality and are concerned with protecting economic interests).

384. *See supra* Part II.C.1 (discussing an international human rights model); *infra* Part V.B (discussing stewardship).

2. The Context for Sustainability at the Domestic Level

At the domestic level, the inquiry about justice centers around implementing the norm of “cooperative federalism” that characterizes national pollution control legislation.³⁸⁵ At a basic level, the discussions at the international and domestic levels both concern political power and economics, yet the values manifest differently. While the conversation at the international level concerns equity between developing nations and industrialized nations, the conversation at the domestic level concerns the respective balance of power between the federal government, the states, and the federally-recognized tribal governments.³⁸⁶ Should Congress enact federal legislation mandating the reduction of CO₂ emissions? How will states and tribes fare in such a world? The relationships between the federal, state, and tribal governments differ depending upon region, population demographics, and level of industrialization. The historical context is different for states than it is for tribes, and the contemporary opportunity of states to engage in economic development differs from that of tribes.³⁸⁷ Thus, there are similar problems of political and economic equity and capacity at the international and domestic levels. What is different, of course, is that the United States comprises a finite territory and geography that encompasses both states and tribes. In this finite domestic landscape, the need for sustainability is much easier to appreciate and an “ethic of place” becomes possible.³⁸⁸ Tribes and states operate in contiguous and overlapping spheres, as illustrated by the conflicts between the Navajo Nation and the state of New Mexico over regulation of air quality in the context of the Desert Rock power plant, and over regulation of water quality, in the context of the uranium mines on fee land adjacent to the reservation.³⁸⁹ The need for integrated decision-making by different governments is obvious in a world where human beings live and thrive in a common watershed and airspace. This is the practical basis for cooperative federalism.

In the modern era, cooperative federalism promotes the idea that the equitable treatment of tribal governments involves a recognition of their governmental authority on a basis similar to that of state governments.³⁹⁰ Most of the major pollution control

385. See Tsosie, *Tribal Environmental Policy*, *supra* note 125, at 233.

386. See *id.* at 234–35.

387. See *id.* at 233, 330.

388. Dernbach, *Achieving Sustainable Development*, *supra* note 354, at 271.

389. See *In re Desert Rock Energy Co.*, PSD Permit No. AZP 04-01 (Jan. 7, 2009), *supra* note 306; see also Cooley, *supra* note 170, at 399–400.

390. See Tsosie, *Tribal Environmental Policy*, *supra* note 125, at 234–35.

statutes have been amended to allow the “treatment of tribes as states” and therefore, tribes can set their own pollution control standards in partnership with the EPA, and they can apply the standards to lands and entities within the reservation and sometimes, EPA permits, to lands and entities outside the reservation.³⁹¹ States and tribes may have divergent views about the optimal use of particular lands and resources, so concepts of stewardship, while possible, may not be consistent between governments.³⁹² The pending American Clean Energy and Security Act of 2009 follows this model of cooperative federalism,³⁹³ and it appears to directly respond to points raised in Hanna’s report³⁹⁴ and also to the comments of the tribal leaders who met in Washington, D.C. in spring 2009 to affirm the need for climate change legislation and lobby for specific provisions that would assist Indian nations.³⁹⁵

The tribal leaders who met with Congressional representatives used a justice argument, asserting that throughout history Native communities have suffered disproportionately from the negative environmental impacts of non-tribal activities, and that climate change is a continuation of this trend.³⁹⁶ They called for national legislation that would “fight global warming and preserve their way of life” by requiring mandatory reductions in GHG emissions, the development of renewable energy within a time frame that would prevent irreparable harm to the environment and to human health, and that would dedicate funding for fish and wildlife conservation and restoration.³⁹⁷ The tribal leaders called for specific provisions that would support tribal efforts to mitigate the consequences of climate change on tribal communities, lands and natural resources.³⁹⁸ They also asked for equal access to the economic development opportunities that would emerge from renewable energy development, energy efficiency, carbon trading

391. *Id.* at 234–36.

392. *Id.* at 330.

393. *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. §§ 102, 111, 131–33, 453, 479 (2009).

394. *See* HANNA, *supra* note 3, at 1 (“By including tribes in the process of crafting national climate change policy and legislation, and by forging cooperative relationships with tribes, policymakers can ensure solutions that will be fair and equitable for everyone.”); H.R. 2454 §§ 111, 453, 479 (2009) (considering issues best addressed at tribal level and allowing tribes to develop their own climate change adaptation plans).

395. *See* NATIVE AMERICAN RIGHTS FUND, *supra* note 24, at 10–11; H.R. 2454, 111th Congress §§ 111, 131–133, 299, 453, 476–79 (2009).

396. NATIVE AMERICAN RIGHTS FUND, *supra* note 24, at 10.

397. *Id.*

398. *Id.*

mechanisms, and other mitigation strategies.³⁹⁹ With the support of three tribal organizations and one environmental organization,⁴⁰⁰ tribal leaders developed a policy platform for incorporation, in part, into the pending climate change bill.⁴⁰¹

First, tribal leaders proposed that federally-recognized Indian tribes be treated as “sovereign partners” in assessing and addressing the problem of climate change at the national and international levels.⁴⁰² They also asserted that legislation must “accord tribes, and other indigenous peoples worldwide, at least the status and rights recognized in the U.N. Declaration on the Rights of Indigenous Peoples and other international law.”⁴⁰³ This request asks Congress to validate the sovereign authority of federally-recognized Indian tribes to make decisions about issues concerning their lands, resources and members, but also asks Congress to acknowledge that the tribes have human rights under international human rights law (the U.N. Declaration) as “indigenous peoples.” Tribal leaders appear to be calling for Congress to continue the domestic cooperative federalism model while acknowledging the human right of indigenous peoples to environmental self-determination, which would protect tribal communities in their relationships to their traditional lands.

As a way to achieve the latter goal, tribal leaders specifically asked Congress to allocate sufficient resources to tribes to assess the adverse impacts of climate change on their natural and cultural resources, and to address those impacts through adaptation and mitigation measures that will ensure the continuing integrity of their cultures, homelands, infrastructures, services, natural resources, and off-reservation resources.⁴⁰⁴ They also asked that the resources be sufficient to “gather the traditional tribal knowledge necessary to this process, with this knowledge given proper weight in assessing and addressing climate change.”⁴⁰⁵

Second, tribal leaders asked for “equitable access to the same financial and technical resources provided to states and local governments,” without having to obtain treatment as a state (“TAS”) or meet a similar burden to access such

399. *Id.*

400. The three tribal organizations were the National Tribal Environmental Council (NTEC), the National Congress of American Indians (NCAI), and the Native American Rights Fund (NARF). The national environmental organization was the National Wildlife Federation (NWF). NATIVE AMERICAN RIGHTS FUND, *supra* note 24, at 10.

401. *See id.* at 10–11.

402. *Id.*

403. *Id.*

404. NATIVE AMERICAN RIGHTS FUND, *supra* note 24, at 10.

405. *Id.*

resources.⁴⁰⁶ Access to resources includes access to funds to improve tribes' transportation, health, housing, water, and other infrastructures; as well as to actively engage in renewable energy development; enact and implement energy efficiency building codes; and provide green job transition assistance for tribal members.⁴⁰⁷

Third, tribal leaders asked for "a set-aside of direct monies or allowances amounting to five percent of the value of all allowances provided for under the legislation, [to be] made available for distribution to Indian tribes."⁴⁰⁸ They suggested that, "in accordance with a negotiated rulemaking process, a federal-tribal advisory committee shall design and manage a program for the implementation of mitigation and adaptation strategies to address climate change, which shall include criteria as to how tribes would qualify for a monetary or allowance distribution."⁴⁰⁹ Tribal leaders asserted that "this set-aside is justified by the disproportionate impact of climate change on tribes, the difficult economic situation of many tribes, the fact that their survival as peoples depends on safeguarding their resources on and off tribal lands, and the federal trust responsibility to tribes."⁴¹⁰ This request asks Congress not only to treat tribes as equals to states, but to set aside additional resources as a way to compensate for past harms, economic hardship, and as a way to meet the federal government's trust responsibility to protect tribes.

Finally, the tribal leaders specifically requested that Alaska Native Villages receive "direct, open access to funding and technical assistance to relocate those communities threatened by climate change, with their free prior and informed consent."⁴¹¹

The American Clean Energy and Security Act of 2009 employs a primary approach of cooperative federalism to address issues of clean energy, reduction of GHG emissions, and domestic adaptation.⁴¹² Under this approach, tribes and states are treated equally within the primary titles and subtitles of the legislation. Tribes and states may adopt laws that are more stringent than those established by the bill, and they can develop programs and engage in permitting processes to implement those

406. *Id.*

407. *Id.*

408. NATIVE AMERICAN RIGHTS FUND, *supra* note 24, at 10.

409. *Id.* at 10–11.

410. *Id.* at 11.

411. *Id.*

412. *See generally* American Clean Energy and Security Act of 2009, H.R. 2454., 111th Cong. (2009).

standards.⁴¹³ Tribes receive political access equal to that of states and local governments on the various Boards and Commissions contemplated by the bill.⁴¹⁴ Tribes and states likewise receive an equal ability to apply for assistance under a number of grant and loan programs envisioned by the bill.⁴¹⁵

Although the bill's focus is equal treatment for tribal and state governments, it does contain sections that are specific to federally-recognized Indian tribes. First, the bill contains a section to support "Indian renewable energy and energy efficiency programs."⁴¹⁶ The provision authorizes the Secretary of Energy to consult with other officials (including the Secretary of Interior) and "promulgate regulations establishing a program to distribute allowances to Indian tribes on a competitive basis" for the purposes of promoting energy efficiency and renewable energy.⁴¹⁷ The bill contemplates a set aside of one percent of the emission allowances for distribution to Indian tribes, while the remainder of the allowances are "distributed ratably among the States" based on factors such as population and per capita income.⁴¹⁸ The tribal allocation is further subject to distribution on a "competitive basis" for tribes that meet defined criteria, including the development of a valid "tribal climate adaptation plan."⁴¹⁹ Finally, the bill specifically provides that its provisions do not "amend, alter, or give priority over the Federal trust responsibility to Indian tribes," and contains a specific exemption from FOIA protecting certain categories of sensitive information relating to the location of human remains, cultural items, or ceremonial activities.⁴²⁰

This bill sustains the domestic sovereignty of federally-recognized Indian tribes and also calls for tribes to develop their own approaches to climate change, which may be premised on important cultural interests and longstanding ties to particular lands and resources.⁴²¹ In that sense, the bill responds to the call of tribal leaders, though it still falls short of committing the level of resources necessary to enable all tribes to engage in appropriate planning and adaptation. The bill does not formally support the integration of traditional knowledge into regional

413. See H.R. 2454 §§ 102, 111, 131–33, 222, 229, 453, 476–79.

414. See, e.g., H.R. 2454 §§ 476–77 (Natural Resources Climate Change Adaptation Panel and Science Advisory Board).

415. See, e.g., H.R. 2454 § 299(d) (Loans to States and Indian Tribes to Carry Out Renewable Energy Sources Activities).

416. H.R. 2454 § 133 (Indian Renewable Energy and Energy Efficiency Programs).

417. *Id.*

418. H.R. 2454 § 453.

419. H.R. 2454 § 482.

420. *Id.*

421. H.R. 2454 §§ 476–477, 482.

adaptation plans, though tribes are presumably free to design their own adaptation programs in accordance with tribal norms. Nor is there automatic access to funds, for example, to address the harms that are affecting many Alaska Native Villages. The nature of cooperative federalism is to establish a minimum threshold, operative throughout the United States, and to facilitate a marketplace in which states and tribes alternately compete and cooperate, depending upon which interests are implicated.⁴²² Moreover, the emphasis of this bill is upon adaptation rather than mitigation, which might promote a more expansive time frame for action than is consistent with avoiding some of the worst harms of climate change.⁴²³ What is missing from the domestic conversation about climate change is a different moral sense of the relationship of human beings to the natural environment. This raises the inquiry about how to build an “ethic of place” and a norm of stewardship within American public life.

B. Stewardship and an Ethic of Place

The emphases of international accords on climate change and the pending climate legislation in Congress share a focus on the political and economic contexts of sustainability. The ethical context of sustainability is the least developed part of public policy, and is often relegated to philosophical discussions among academics.

In response to the climate change dilemma, for example, Professor Sarah Krakoff has queried “whether we have the ethical framework necessary to adopt effective mitigation strategies.”⁴²⁴ Krakoff draws a parallel between the inequities for American Indian tribes and those that beset developing nations.⁴²⁵ Industrialized nations, such as the U.S., are responsible for the vast majority of GHG emissions and have received the economic benefit of this development.⁴²⁶ Today, they are spending that wealth to ensure that they are the “climate change winners” by crafting adaptation programs to deal with consequences of global warming, such as high salinity of water resources in arid parts of the nation.⁴²⁷ Although many scholars

422. See Dernbach, *Achieving Sustainable Development*, *supra* note 354, at 279–80; Tsosie, *Tribal Environmental Policy*, *supra* note 122, at 303.

423. See H.R. 2454 tit. 4(E).

424. Krakoff, *supra* note 14, at 888.

425. *Id.* at 888–89.

426. *Id.*

427. *Id.* at 889.

perceive the distributional inequities as moral issues, Krakoff correctly notes that most citizens and policymakers do not even see the “moral problem” because the harms of climate change are the result of “simply living a normal life in a wealthy, developed country.”⁴²⁸ Americans are proud of their SUVs, big trucks and muscle cars. Americans use vast quantities of water and energy per person in the service of their comfortable lifestyles.⁴²⁹ We may not intend to harm others, but that is the necessary result of our industrialized way of life. To the extent that tribal leaders argue for a greater share of resources to compensate for the disproportionate harms to tribal communities, lands and resources that climate change has caused, they are drawing on a similar concept of distributional equity that attaches to the debates about the respective obligations of industrialized and developing nations.⁴³⁰ The social justice conversation, however, does not necessarily tell us the requirements to protect particular *places* and environments from destruction. In fact, as President Joe Shirley indicates with respect to the Desert Rock Power Plant, the Navajo Nation has a powerful argument for proceeding with the development of its valuable coal resources in the effort to regain full self-determination.⁴³¹

Krakoff notes the shortcomings of the utilitarian approach to environmental decision-making, which most often privileges economic values and minimizes ethical concerns, and she suggests that global warming may be the exigency that “catapult[s] us beyond this way of thinking.”⁴³² Krakoff suggests we can draw on the concept of sustainability to incorporate the “ethical insights from the environmental movement with those from the human rights framework.”⁴³³ Under this framework, human and natural systems can be viewed as “interconnected” and human needs should be met “in a manner that supports the health of the environment.”⁴³⁴ If our consumption patterns and our economies are not sustainable in an environmental sense, then there is a necessary limitation to the overriding norm.⁴³⁵ Krakoff claims that the “blueprint for such a viewpoint is

428. Krakoff, *supra* note 14, at 890.

429. Total U.S. water usage was 408 billion gallons per day in 2000. SUSAN S. HUSTON ET AL., U.S. GEOLOGICAL SURVEY, CIRCULAR 1268, ESTIMATED USE OF WATER IN THE UNITED STATES IN 2000, at 4 (2004). United States Total Primary Energy Supply was 2339.94 Mtoe and 7.75 toe/capita in 2007. INTERNATIONAL ENERGY AGENCY, KEY WORLD ENERGY STATISTICS at 56–57 (2004).

430. See Halvorssen, *supra* note 375, at 848.

431. Suagee & MacCourt, *supra* note 168, at 1–2.

432. Krakoff, *supra* note 14, at 892.

433. *Id.*

434. *Id.*

435. *Id.*

available to us” in the traditional ways of life “embraced by American Indian tribes.”⁴³⁶ This “ethical attitude” takes the form of “daily habits and physical engagement” with the environment, exemplifying the “kinds of behavioral changes that will have to occur in a zero-emissions world.”⁴³⁷ Krakoff discusses informal groups in Europe, formed at the local level to support living a low carbon lifestyle as one example of a modern effort to live locally according to an “ethic of sustainability.”⁴³⁸

Krakoff’s view of sustainability is consistent with a human rights approach to environmental justice and also supports the notion that land-based indigenous cultures exemplify the type of environmental sustainability that is necessary to survive in an era of climate change. Under this view, tribal environmental policy would seem promising as a source of constructive guidance for a revised national concept of sustainability. But what about tribes who support economic development like coal mining, which carries such harmful consequences for the local environment as well as the global environment? Is tribal self-determination necessarily sustainable? Which approach is more consistent with tribal norms?

There is a continuing debate between those who assert that protecting indigenous knowledge will lead to sustainable development and achieve environmental justice for Native peoples, and those who assert that indigenous knowledge, however valuable, is incapable of resolving the growing economic and environmental problems in a global world.⁴³⁹ The latter group of scholars asserts that “[s]ustainable development . . . requires harmonizing economic development with environmental protection, while simultaneously maintaining a socially equitable system.”⁴⁴⁰ Critics of indigenous sustainability argue that pre-colonial indigenous societies were not socially equitable and may not have been oriented toward environmental protection either, and so these knowledge systems lack capacity to assist in the current discussion about sustainable development.⁴⁴¹

436. Krakoff, *supra* note 14, at 893–94.

437. *Id.* at 894.

438. *Id.*

439. Compare B.B. Faust & R.C. Smardon, *Introduction and Overview: Environmental Knowledge, Rights, and Ethics: Co-managing with Communities*, 4 ENVTL. SCI. & POL’Y 147 (2001) (arguing that indigenous knowledge will lead to sustainable development), with Bosire Maragia, *The Indigenous Sustainability Paradox and the Quest for Sustainability in Post-Colonial Societies: Is Indigenous Knowledge all that is Needed?*, 18 GEO. INT’L ENVTL. L. REV. 197 (2006) (arguing that indigenous knowledge is not sufficient).

440. Maragia, *supra* note 440, at 201.

441. *Id.*

However, there is a wealth of scholarship illustrating that many Native peoples “traditionally interpreted their relationship with the land and with future generations as holistic, cyclical, and permanent,” and that “sustainability was the natural result, if not the conscious goal, of deeply rooted environmental ethics and traditional land-based economies.”⁴⁴² Traditional environmental ethics are still present in many Native cultures, and these ethics speak to the enduring relationship between the group and the land.⁴⁴³ This relationship is marked by a need to plan for successive generations, to respect the land and resources that enable physical and cultural survival, and to honor the many aspects of a Universe that is alive and enables life.⁴⁴⁴ There is a spiritual essence to the land, water, animals, plants, and rocks that manifests in Native languages, ceremonies, and traditional knowledge. When tribal leaders call for a study of traditional knowledge to document the shifts in the natural world that characterize climate change and when they speak of cultural forms of knowledge being used to craft tribal adaptation plans, they are reaffirming the utility of an “ethic of place” and a norm of stewardship to guide the future.

In fact, there is a very valuable role for Native peoples’ traditional ecological knowledge in crafting domestic and international climate policy.⁴⁴⁵ The longstanding relationship of land-based indigenous communities to their traditional environments offers a unique and valuable body of knowledge about climate change and modes of adaptation in particular environments.⁴⁴⁶ It also serves as a means to build an alternative moral framework for understanding an “ethic of place.” Traditional knowledge can augment other normative models for sustainability. For example, there are currently two leading normative models of sustainability.⁴⁴⁷ The first is designated as “carrying capacity,” or the “maximum number of a species that can be supported indefinitely by a particular habitat.”⁴⁴⁸ The second is the “ecological footprint” which measures “the average per capita ecological impacts of persons or groups” and uses this measurement comparatively to assess

442. Tsosie, *Tribal Environmental Policy*, *supra* note 125, at 286–87.

443. *Id.*

444. *Id.* at 276–77, 287.

445. See Erika M. Zimmerman, *Valuing Traditional Ecological Knowledge: Incorporating the Experiences of Indigenous People into Global Climate Change Policies*, 13 N.Y.U. ENVTL. L.J. 803, 806–07 (2005); see also DANIEL R. WILDCAT, RED ALERT!: SAVING THE PLANET WITH INDIGENOUS KNOWLEDGE (2009).

446. *Id.*

447. Steve Vanderheiden, *Two Conceptions of Sustainability*, 56 POL. STUD. 435 (2008).

448. *Id.* at 436.

ecological capacity.⁴⁴⁹ The main difference between the two models is the respective weight given to human activity within an ecosystem.⁴⁵⁰ The enduring debate within Western systems of environmental ethics is whether human beings are “equal citizens” in the natural world, as Aldo Leopold believed, whether they exercise “dominion” over this world, as Blackstone posited, or whether they have no rightful place within pristine environments.⁴⁵¹ In comparison, most indigenous groups believe that human beings are a vital part of the natural world, which becomes the basis for their continuous and enduring duties and obligations to the earth, salmon, buffalo, water, stones, and sacred sites.⁴⁵² The traditional knowledge of most indigenous groups rests on a long-standing relationship between the group and their traditional lands,⁴⁵³ and emphasizes the relationship of a particular group to the natural environment. This is a different model from the social justice model of international law or the environmental justice model of domestic law, in which different groups must interact in ways that achieve equity.

The implications of this discussion for domestic policy are significant. For example, contemporary environmental policy strongly advocates ecosystem management, which is much more aligned with the carrying capacity model that evaluates what is needed to sustain the various species that occupy a given area and physical environment.⁴⁵⁴ Because tribes and states share jurisdiction over common ecosystems, they are encouraged to develop “co-management plans.”⁴⁵⁵ This can be problematic if states and tribes have different conceptions of their rights to a given resource (for example, many tribes have enduring treaty rights to particular resources, such as fish and water, within an ecosystem), or if they have different values about the appropriate uses and management of the resource. It is far too simplistic to suggest that there is an optimal scientific test for sustainability that is devoid of the human component.⁴⁵⁶ In a world where

449. *Id.* at 437.

450. *Id.* at 453.

451. Tsoie, *Tribal Environmental Policy*, *supra* note 125, at 250, 259–60. (citing Aldo J. Leopold, *The Land Ethic*, in *A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE* 201–26 (1949); WILLIAM BLACKSTONE, *COMMENTARIES ON THE LAWS OF ENGLAND* 2–11 (1766), *excerpted in* ROBERT C. ELLICKSON ET AL., *PERSPECTIVES ON PROPERTY LAW* 37–38 (2d Ed. 1995)).

452. *Id.* at 279–80.

453. *Id.* at 286–87.

454. Shelly D. Stokes, *Ecosystem Co-Management Plans: A Sound Approach or a Threat to Tribal Rights?*, 27 VT. L. REV. 421, 424 (2003).

455. *See id.* at 428.

456. *See id.* at 449–50.

tribes and states share jurisdiction as governments, but have distinctive rights and responsibilities, the relationship is far more complicated.⁴⁵⁷ In addition, many tribes do possess traditional knowledge about the environment, which ought to be given some effect in evaluating sustainable approaches to ecosystem management.

At the level of tribal policy, sustainability also has a distinctive normative character. For example, the Navajo Nation exemplifies the modern trend among tribal governments to exercise both political and cultural sovereignty.⁴⁵⁸ The Navajo Nation's Environmental Charter states that "it is the policy of the Navajo Nation to promote harmony and balance between the natural environment and the people of the Navajo Nation."⁴⁵⁹ This commitment to harmony and balance is a central tenet of Navajo traditional law, and constitutes an organizing set of principles for the Dine people.⁴⁶⁰ The law further specifies that the Navajo Nation government may permissibly exercise sovereignty when this fulfills "the responsibilities of each generation [to serve] as trustee of the environment for succeeding generations."⁴⁶¹ The Navajo Nation Code affirmatively requires the government to act in furtherance of its stewardship responsibility, and in furtherance of the culture and philosophy of the Dine people.⁴⁶²

It is clear that the Navajo Nation Council appropriately exercised its sovereign authority by banning uranium mining within the Navajo Indian Country, and the Dine Natural Resources Protection Act of 2005 expressly refers to the Navajo Nation Environmental Policy Act, and the codified provisions that reflect the central tenets of the Navajo People's Fundamental Laws, Traditional Laws, and Natural Laws.⁴⁶³ This Act represents a conscious act of political and cultural sovereignty by the Navajo Nation.

With respect to coal mining, it is clear that the Navajo Nation has been required to exercise its political sovereignty in a way that honors the economic needs of the Navajo people, provides a mechanism to improve the environmental harms caused by the early leasing policies of the federal government that harmed tribal lands, and responds to the demand that

457. See *id.* at 443.

458. See Coffey & Tsosie, *supra* note 1, at 199.

459. NAVAJO NATION CODE ANN. tit. 4, § 901 (2005).

460. tit. 18, § 1301(D).

461. tit. 4, § 903.

462. tit. 4, § 904.

463. tit. 18, § 1301.

American society has placed on all states and tribes that serve the energy needs of the country.⁴⁶⁴

It would be simplistic and unfair to characterize the Navajo Nation's energy policies as "anti-environmental." Rather, the Navajo Nation's primary goal has been to achieve self-determination,⁴⁶⁵ and the Nation is a major force in the national marketplace for energy. However, if Congress enacts national legislation curbing GHG emissions and promoting the market for renewable energy, this may inspire the change in policy that environmentalists and community activists are advocating. For generations, federal environmental policies have impacted Indian Country, and the push for climate change legislation is no exception.⁴⁶⁶ The federal government was responsible for coal and uranium mining on Indian lands,⁴⁶⁷ and the BIA still considers coal mining to be the most productive means of economic development for the Navajo Nation.⁴⁶⁸

The Desert Rock Power Plant will pose one of the most compelling opportunities for the Navajo Nation to exercise political and cultural sovereignty in an era of climate change. This proposed power plant will entail the type of integrated decision-making among governments that Professor Dernbach calls for while also requiring a sustained examination of the social, economic and environmental impacts that will result from this development. If Congress passes domestic climate change legislation, this will immediately change the calculus. The incentives proposed for states and tribes to participate in renewable energy projects enable the creation of a transmission grid for renewable energy, and create jobs and opportunities for entrepreneurship in renewable energy that will make such projects feasible. The limitations on GHG emissions will make projects like the Desert Rock Power Plant much less attractive.

Significantly, the Navajo Nation is also actively pursuing renewable energy projects, based on its abundant resources of wind and solar power.⁴⁶⁹ There is also an active grassroots effort among the Dine people to support development of these renewable energy resources in alignment with traditional Navajo

464. See Tsosie, *Indigenous People*, *supra* note 5, at 1630–1631.

465. See *id.*

466. See Tsosie, *Tribal Environmental Policy*, *supra* note 125, at 230–31.

467. See *id.* at 301.

468. BUREAU OF INDIAN AFFAIRS, DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE DESERT ROCK ENERGY PROJECT 2–33 (2007).

469. NAVAJO NATION CODE ANN. tit. 4, § 702.

philosophies.⁴⁷⁰ Spiritual leaders understand the Dine lifestyle as a daily ceremonial cycle that begins with a morning prayer to greet the dawn deities and Father Sun, and request balance with Mother Earth throughout the day.⁴⁷¹ In this universe, human beings are in a vital relationship with the environment that carries with it an imperative and inherent responsibility to maintain *hozho*, or beauty and balance.⁴⁷² Traditional environmental ethics counsel that the wind and sun are beneficial forces in the lives of human beings, supporting renewable energy projects of this nature.⁴⁷³ Conversely, violating certain ethical boundaries (such as removing uranium from the earth's interior) comes with serious repercussions.⁴⁷⁴ The Navajo Nation Tribal Council has recognized these fundamental norms by banning uranium mining throughout the reservation,⁴⁷⁵ and the Navajo Nation has the same power to scale back on coal mining or to promote development of renewable energy on the Navajo reservation in the exercise of its political and cultural sovereignty.⁴⁷⁶

VI. CONCLUSION

Contemporary debates over justice in an era of climate change can be deceptively vague and rhetorical. The template of justice between developing and industrialized nations, for example, is hardly illuminating when applied to Indian nations within the United States because it obscures the cultural and political dynamics of the tribes in relation to the United States. Examining specific case studies, such as that of the Navajo Nation, reveals the peculiar character of environmental justice for federally-recognized tribes in the United States, who continue to grapple with the legacy of historical policies and the political and legal realities of their status as domestic sovereigns subject to United States law. By examining the environmental laws and policies of the Navajo Nation government, it is possible to see how the Dine people honor their own values of sustainability, stewardship, and intergenerational equity on the lands within the four sacred mountains that characterize the traditional

470. Dana E. Powell & Dailan J. Long, *Landscapes of Power: Renewable Energy Activism in Dine Bikeyah*, in *INDIANS AND ENERGY* (Brian Frehner & Sherry Smith, eds.) (forthcoming 2010).

471. *Id.*

472. *Id.*

473. *Id.*

474. Powell & Long, *supra* note 471.

475. NAVAJO NATION CODE ANN. tit. 18, § 1301.

476. See Tsosie, *Tribal Environmental Policy*, *supra* note 125, at 230–31.

boundaries of the Navajo Nation.⁴⁷⁷ Within those boundaries, the Dine people are the stewards of the land, as illustrated by the recent case, *Navajo Nation v. U.S. Forest Service*, in which the Navajo Nation led a coalition of tribes that hold the San Francisco Peaks as a sacred site and objected to the proposal to create artificial snow out of sewage effluent on the Peaks.⁴⁷⁸ This is an exercise of cultural sovereignty and it is not tied specifically to any legal title to the land, which is under federal jurisdiction.⁴⁷⁹ The Navajo Nation does exercise political and legal jurisdiction over its reservation lands, however, including the site of the proposed Desert Rock Power Plant.⁴⁸⁰ Thus, the Navajo Nation has the ultimate authority to decide whether or not to pursue the power plant. This exercise of self-determination will impact the Navajo Nation's land and its members in a myriad of ways, and will also impact other communities adjacent to the reservation and across the globe. The earth is a finite space in an era of climate change, and the actions of one government affect all. In this way, the Navajo Nation has tremendous power to establish an indigenous ethic of sustainability for the lands that it holds sacred.

477. *Navajo Nation v. U.S. Forest Serv.*, 535 F.3d 1058 (9th Cir. 2008) (en banc).

478. *Id.*

479. *See id.* at 1064.

480. *See Oversight Hearing*, *supra* note 283; NAVAJO NATION CODE ANN. tit. 4, § 254.