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BOOK REVIEW

LEARNING FROM *RED SKY AT MORNING: AMERICA AND THE CRISIS OF THE GLOBAL ENVIRONMENT*:¹ HOW “JAZZ” AND OTHER INNOVATIONS CAN SAVE OUR SICK PLANET

INTRODUCTION

Red sky at night,

A sailor's delight.

Red sky at morning,

A sailor's warning.

This old mariners' adage has been used for centuries as a simple way to observe environmental signs and warn sailors of dangerous storms. A red dawn is alarming—it signals impending violent weather. *Red Sky at Morning: America and the Crisis of the Global Environment* also is alarming—it warns of catastrophic environmental degradation.² The situation is truly urgent. As the author warns: “it is now an understatement to say that we are running out of time.”³

James Gustave Speth is a professor and dean of the practice of environmental policy and sustainable development at Yale University.⁴ Speth founded the World Resources Institute and co-founded the Natural Resources Defense Council.⁵ He also served as an environmental advisor for President Carter and President Clinton.⁶ Decades of detailed attention to environmental issues make Speth a well-credentialed expert on global health.

His assessment, analysis and admonitions regarding the current environmental crisis are resounding and authoritative. Many world leaders, expert scientists, renowned scholars and other published commentators

1. JAMES GUSTAVE SPETH, *RED SKY AT MORNING: AMERICA AND THE CRISIS OF THE GLOBAL ENVIRONMENT: A CITIZEN'S AGENDA FOR ACTION* (2004).

2. *Id.* at xiv. “This volume focuses on the looming disaster and how to avoid it.” *Id.*

3. *Id.* at 9.

4. *Id.* at xiii.

5. *Id.* at xi.

6. *Id.* at 2. Former U.S. President Jimmy Carter endorses Speth's work, “[h]is extraordinary new book is an impassioned plea to take these issues seriously before it is too late. We owe it to our children and grandchildren to read *Red Sky at Morning* and take action while we can.” *Id.* at back cover.

agree with Speth.⁷ These affirmations of his ideas also reiterate his call for immediate and truly influential action.⁸ *Red Sky at Morning: America and the Crisis of the Global Environment* (hereinafter "*Red Sky*") is more than an educated evaluation of the global health crisis—it is an impassioned call to arms and a detailed plan of action.⁹

Unfortunately, the planet is in need of intensive care. As Speth explains, "[m]ajor changes are in order, changes that must be driven by a profound sense of urgency."¹⁰ So take what action? And how? Until now, Speth says, the "primary focus of the international community has been international environmental law, including so-called 'soft law,' the non-binding international policy declarations."¹¹ Although soft law reflects diplomatic successes,¹² a dire situation calls for stronger laws. The global health crisis needs improved and enforceable international law, but laws are only part of the complex solution for such large problems.¹³

As Speth explains, "efforts to protect the global environment have largely failed in the sense that the trends in environmental deterioration have not improved and that more of the same will not get us where we want to be in time to head off an era of unprecedented environmental decline."¹⁴ Tangible—and desperately needed—solutions will require unconventional approaches, innovative ideologies and shifts in cultural paradigms.¹⁵ *Red Sky* warns: "we need very different international institutions, procedures, and core understandings."¹⁶

Part I of this Book Review considers the impacts of the twentieth century's explosions in population and technology. Part II investigates the most pressing current environmental issues and their causes. Part III contemplates solutions, considering economic incentives and sustainable

7. Throughout this paper, the author will reference the views of other scholars whose work reinforces Speth's concerns about global environmental health. Investigation into the issues Speth has addressed finds the majority of experts in agreement with Speth's assessment.

8. SPETH, *supra* note 1, at 95. "[T]he threatening environmental trends highlighted a quarter-century ago have continued, so that today the problems are deeper and more urgent." *Id.*

9. *Id.* at 203. *Red Sky's* final section is a detailed blueprint for individual activism entitled "Resources for Citizens." *Id.*

10. *Id.* at 9.

11. *Id.* at 91.

12. LAKSHMAN D. GURUSWAMY ET AL., *INTERNATIONAL ENVIRONMENTAL LAW AND WORLD ORDER* viii (2d ed., West Group 1999). "Although not binding, [soft laws] nevertheless provide the basis for voluntary cooperation, which enables the action processes to proceed, and paves the way for negotiation of binding agreements." *Id.*

13. SPETH, *supra* note 1, at xii. "The current system of international efforts to help the environment simply isn't working. The design makes sure it won't work, and the statistics keep getting worse. We need a new design, and to make that happen, civil society must take the helm." *Id.*

14. *Id.* at xi.

15. *Id.* at 171. "Many solutions to today's environmental challenges lie outside the established 'environmental sector.' Environmental objectives now need to be incorporated into corporate planning, energy strategy, technology policy, R & D funding, tax policy, international trade and finance, development assistance, and other matters that once seemed far removed." *Id.*

16. *Id.* at 173.

development. Also, Part III outlines Speth's eight transitions to global sustenance.

Part IV explores the far-reaching implications of Speth's directive to rethink and reform culture and consciousness. This reformation incorporates innovative theories from postmodern philosophy, Eastern traditions, socio-economics, psychology, literature, and feminism (in its various forms). Throughout Part IV, and also throughout *Red Sky*, a new paradigm of dialectic synthesis, cooperation, reconciliation and inclusion emerges. Finally, Part V considers how Speth's new consciousness could impact the legal world.

I. FROM TELEGRAPHS TO TEXT MESSAGING: IMPACTS OF THE TWENTIETH CENTURY'S EXPLOSIONS IN POPULATION AND TECHNOLOGY

*Preceding generations have presented us with a highly developed science and technology, a most valuable gift which carries with it possibilities of making our life free and beautiful to an extent no previous generation has enjoyed. But this gift also brings with it dangers to our existence as great as any that have ever threatened it.*¹⁷

A. Assessing Global Environmental Health Reveals a World of Wounds¹⁸

Author and biologist Aldo Leopold noticed by the mid-twentieth century that profound changes were overtaking the natural world.¹⁹ By 1900, all of human history had produced a global population of one and a half billion people. However, the twentieth century facilitated an enormous population explosion—there are now six billion people on earth.²⁰ Leopold and other environmentalists have tracked the drastic impacts of population explosion. Speth outlines four major concerns that have resulted from this massive human expansion and its accompanying changes in culture and technology.²¹ Section A considers the increase in population and recent globalization, the expansive nature of these changes, and ultimately the ethical consequences of growth and change. Section B addresses the implications—for good and for ill—that technological advancements have for the future of environmental health.

17. ALBERT EINSTEIN, *IDEAS AND OPINIONS* 93–94 (Crown Publishers 1954).

18. SPETH, *supra* note 1, at 13 (citing ALDO LEOPOLD, *A SAND COUNTY ALMANAC: WITH OTHER ESSAYS ON CONSERVATION FROM ROUND RIVER* 165 (Oxford University Press 1966)). “[O]ne of the penalties of an ecological education is that one lives alone in a world of wounds.” *Id.*

19. *Id.* at 15.

20. *Id.* at 13.

21. *Id.* at 13–22.

1. Concern #1: A Rapidly Expanding Population on a Finite Planet²²

Speth's first concern is the seemingly limitless growth of people in a limited world. Population growth and improved standards of living have come at the expense of the environment.²³ Millions more people radically increase consumption and pollution, which are destroying the natural world.²⁴ A growing number of consumers are ferociously devouring resources.²⁵ While industrial and human wastes have massively increased, technological advances have created new hazards, such as toxic and radioactive waste.²⁶

The earth's atmosphere now has increased levels of greenhouse gases, causing global warming and depletion of the planet's stratospheric ozone layer.²⁷ Also, the oceans and fresh water habitats are being destroyed.²⁸ Environmental degradation in the twentieth century also has threatened the biodiversity of plant and animal species. As scientist Stuart Primm explains, "the rate of species extinction today is estimated to be a hundred to a thousand times the normal rate at which species [naturally] disappear."²⁹

2. Concern #2: Globalization: Interdependent International Megasytems

Second, the expansion of the twentieth century has globalized economic and environmental issues. The problems that Speth outlines in *Red Sky* are world-wide.³⁰

New institutions such as the European Union and the World Trade Organization wield enormous power and are creating a hugely interdependent global economy.³¹ Yet, there is no "World Environmental Pro-

22. *Id.* at 17. Speth quotes a convention of 1,500 preeminent scientists, the majority of whom are Nobel laureates:

The earth is finite. Its ability to absorb wastes and destructive effluents is finite. Its ability to provide food and energy is finite . . . Current economic practices which damage the environment, in both developed and underdeveloped nations, cannot be continued without the risk that vital global systems will be damaged beyond repair.

Id.

23. *Id.* at 119. "Our economic activity, in the largest sense, is consuming nature and pouring out products and pollution." *Id.*

24. *Id.*

25. Susan Headden, *A Heavy Footprint*, U.S. NEWS & WORLD REPORT, July 6, 2004, at 4. "[W]e are sapping our resources at a ferociously gluttonous pace." *Id.*

26. SPETH, *supra* note 1, at 46. "Paralleling the dramatic growth in the volume of older pollutants . . . has been the introduction since World War II of new chemicals and radioactive substances." *Id.*

27. *Id.* at 16.

28. *Id.*

29. SPETH, *supra* note 1, at 15 (citing Stuart L. Primm et al., *The Future of Biodiversity*, SCIENCE 269, 347 (1995); J.H. LAWTON AND R. M. MAY, EXTINCTION RATES 73 (1995)).

30. SPETH, *supra* note 1, at 15-22.

31. RICHARD FALK, REVITALIZING INTERNATIONAL LAW 5 (1989). Falk explains the ironic movement, after centuries of bloodshed to separate and autonomize individual nations, back toward

tection Agency” with anything approaching the power or budget to address the looming crisis.³²

Though humans separate themselves into different cultures, languages and ethnicities, the environmental impact of unchecked atmospheric alteration transcends nationalities and sovereign states.³³ As Speth explains: “[a]ddressing environmental concerns means thinking beyond states, nations or even continents.”³⁴

Environmental crisis can quickly lead to political and social crisis.³⁵ As we face a brave new world of international trade, we also confront planet-wide pollution and drastic climate alterations.³⁶ As the problems grow, we will need correspondingly larger solutions to prevent humanitarian disasters.

3. Concern #3: Growth Facilitates More Growth³⁷

A third consequence of the twentieth century’s economic growth is its snowballing, expansive effect. Speth explains, “the world economy’s forward momentum is large.”³⁸ More people seeking improved quality of life means a greater draw on resources.³⁹ One of the scarcest, but most essential, of these natural resources is water.⁴⁰

Speth explains, “[c]ollectively the environmental impacts of rich and poor have mounted as the world economy has grown, and we have

control under one central power: “The seventeenth century completed a long process of historical movement from nonterritorial central guidance toward territorial decentralization, whereas the contemporary transition process seems headed back toward nonterritorial central guidance.” *Id.*

32. SPETH, *supra* note 1, at 177. “Over the past decade, the leaders of France, Germany, and other countries have called for the creation of a World Environment Organization.” *Id.* See also Sir Geoffrey Palmer, *New Ways to Make Environmental Law*, 86 AM. J. INT’L L. 259, 260 (1992). Sir Geoffrey Palmer, P.C., K.C.M.G., A.C., is a former Prime Minister, Deputy Prime Minister, Attorney General and Minister for the Environment of New Zealand. “In truth, the United Nations lacks any coherent institutional mechanism for dealing effectively with environmental issues.” *Id.* at 260. See also *infra* Part V for a discussion of global environmental governance.

33. SPETH, *supra* note 1, at 193. THE EARTH CHARTER is a product of the Rio Summit and now endorsed by “725 organizations representing 40 million people.” *Id.* Speth calls it “[t]he most sophisticated effort to date to frame values and principles for a sustainable future.” *Id.* THE EARTH CHARTER recognizes that, “[a]s the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must realize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny.” *Id.* at 194.

34. SPETH, *supra* note 1, at 178. Speth maintains that we need “globalize[d] environmental protection in a world where pollution knows no boundaries and where trade, deployment of technology, and investment flows are increasingly international.” *Id.*

35. *Id.* at 61. “Within societies, the disruption of water supplies or agriculture, as well as rising sea levels and other impacts, could easily contribute to social tensions, violent conflicts, humanitarian emergencies, and the creation of ecological refugees.” *Id.*

36. *Id.* at 73. “[T]he more serious pollution problems are chronic, insidious, and global.” *Id.*

37. *Id.* at 18. “[T]here is no reason to think that the world economy will not double and perhaps double again within the lifetimes of today’s young people.” *Id.*

38. *Id.* at 17.

39. See *id.* at 19.

40. *Id.* at 18. See also *infra* notes 117-24 and accompanying text for a discussion of the global fresh water crisis.

not yet deployed the means to reduce the human footprint on the planet faster than the economy expands."⁴¹

4. Concern #4: New Global Ethical Responsibilities⁴²

Speth's final concern about the consequences of the twentieth century is a product of the first three: with humanity's ability to radically alter the global environment comes an ethical responsibility to sustain it.⁴³ Innovative environmentalist Aldo Leopold said, "[a] thing is right when it tends to preserve the integrity, beauty and stability of the biotic community."⁴⁴

As Speth explains, environmental ethics promote "the protection for their own sake of the living communities that evolved here with us and our trusteeship of the earth's natural wealth and beauty for generations to come."⁴⁵

Speth insists that action is urgently needed to preserve the living systems that have been entrusted to us.⁴⁶ He defines the new ethic: "Our responsibility is to manage ourselves and our impacts on nature in a way that minimizes our interference with the great life-support systems of the planet."⁴⁷ This will require increasing the effectiveness of international law,⁴⁸ as well as finding unconventional new solutions.⁴⁹

As worldwide society progresses through the twenty-first century, it must address the twentieth century's problems of rapid population growth and expansive globalization. Formulating and implementing a new, earth-centered ethic is both the consequence of and a responsibility for the increasing global citizenry.

B. The Impact of the Twentieth Century's Technological Revolution

Technological knowledge can mean advancement, sophistication and positive change.⁵⁰ However, some technologies, such as fossil fuel combustion, have huge negative side effects.⁵¹ As Speth points out: "Al-

41. SPETH, *supra* note 1, at 19.

42. *Id.* at 24. "If we have rights, nature must also. The life that evolved here with us should be allowed to live 'as a matter of biotic right.'" *Id.* (quoting ALDO LEOPOLD, A SAND COUNTY ALMANAC 211 (Oxford University Press 1949)).

43. *Id.* at 15-17.

44. *Id.* at 24.

45. *Id.* at 192.

46. *Id.* at 9. "[I]t is now an understatement to say that we are running out of time." *Id.*

47. *Id.* at 20.

48. *See id.* at 96. "But the bottom line is that on the big issues the trends of deterioration continue. With few exceptions, our instrument of choice, international environmental law, is not yet changing them, and the hour is late." *Id.*

49. *See infra* Part IV for a discussion of unconventional solutions.

50. SPETH, *supra* note 1, at 129. "Our society has encouraged technological virtuosity, equating it with progress." *Id.*

51. *See id.* at 44. "[T]he buildup of vast quantities of excess carbon dioxide from fossil fuel use and other sources now threatens to alter the planet's climate and disrupt both ecosystems and

though the social costs of industrial innovation have often been considerable, the material benefits have been irresistible."⁵²

Because infantile technologies and their far-ranging side effects cannot always be predicted or controlled, new technology is a potential Pandora's Box.⁵³ Speth explains that the problem "is not that technology is bad for the environment and social goals per se, but that . . . societies have been largely unable to assess new technologies and direct technological change in ways that avoid huge environmental costs."⁵⁴

Certainly the volumes of new industrial byproducts—biohazards, toxics and radioactive materials—make speculative new technology a threat to the environment.⁵⁵ For example, as many as 400,000 people were injured (including 10,000 deaths) in 1984 when methyl isocyanate, an extremely toxic gas, leaked from a Union Carbide pesticide plant in India.⁵⁶

However, new technologies also can be a big part of environmental solutions.⁵⁷ If we can develop ourselves into technological problems, hopefully we can develop ourselves through the problems to a brighter and cleaner future.

II. WHAT ARE WE DOING TO THE NATURAL WORLD?

*As we begin the new century, human activities are disrupting the great ecological systems and natural cycles that make our planet habitable, bountiful, and wondrous. Only our heightened care can save the world as we know it. So, the world is indeed in our hands, for good or for ill.*⁵⁸

It is always essential to dissect and assess a problem before attempting to solve it. Speth uses his own expertise and the most recent findings of experts in various fields to outline the primary problems of global

human communities." *Id.* As a consequence of petroleum combustion engines, "the United States is responsible for 30 percent" of global greenhouse gas accumulation. *Id.* at 61.

52. *Id.* at 129.

53. *See id.* at 127. Speth quotes then President Nixon, who was touring a nuclear power plant: "We can't be sure what it is going to produce, but on the other hand, we know that by exploring the unknown, we are going to grow and progress . . . [I]n terms of nuclear power, we must not be afraid." *Id.* at 129. This sort of naïve risk-taking takes on new and tragic irony after the Chernobyl nuclear accident, which "caused the first officially reported radiation deaths in a nuclear-power-plant accident." WILLIAM R. SLOMANSON, *FUNDAMENTAL PERSPECTIVES ON INTERNATIONAL LAW* 586 (4th ed., Thompson West 2003).

54. SPETH, *supra* note 1, at 127.

55. *Id.* at 127-130.

56. SLOMANSON, *supra* note 53, at 585. *See also In re Union Carbide Corp. Gas Plant Disaster*, 634 F. Supp. 842, 844-45 (S.D.N.Y. 1986) (dismissing the Indian victims' suit: "The doctrine of *forum non conveniens* allows a court to decline jurisdiction . . . [T]he foreign plaintiffs' choice of the United States forum 'deserves less deference' than would be accorded a United States citizen's choice.").

57. *See infra* notes 168-70 and accompanying text for a discussion of technology as a solution.

58. SPETH, *supra* note 1, at x.

health. Pollution and resource depletion have drastically affected the planet, from the stratospheric ozone layer to the depths of the oceans—and the air, land and water in between.⁵⁹

A. Pollution

Pollution is a fundamental cause driving global deterioration.⁶⁰ Unfortunately, Speth explains that recent prosperity has caused “vast increases in the quantity of pollutants imposed on a finite environment.”⁶¹

Earth is being asked to tolerate air pollution,⁶² toxics,⁶³ excessive nitrogen,⁶⁴ phosphorous,⁶⁵ and carbon dioxide,⁶⁶ radioactive waste,⁶⁷ acid rain and water body acidification,⁶⁸ atmospheric ozone,⁶⁹ human wastes⁷⁰ and other pollution. As the list of problems in the following sections illustrate, expecting the planet to absorb all of these pollutants is an impossible task. As Speth explains, “the more serious pollution problems are chronic, insidious, and global.”⁷¹

B. Greenhouse Gases and Climate Change

When the recent Bush administration rejected controls on greenhouse emissions through the Kyoto protocol,⁷² it commissioned a study from the National Academy of Sciences (NAS), hoping to show that human activity is not drastically disrupting the global climate.⁷³ However, the NAS study did not support the Bush stance and instead reiterated environmentalists’ alarm.⁷⁴

59. See *id.* at 23. Speth contends that “[t]he two megatrends in environmental deterioration are increasing pollution and biological impoverishment.” *Id.* “Biotic impoverishment” is caused by “human appropriation and consumption of natural resources and . . . pollution.” *Id.* at 119.

60. See *id.* at 58.

61. *Id.* at 45.

62. *Id.* at 44.

63. *Id.*

64. *Id.* at 71-73.

65. *Id.* at 43-44.

66. *Id.* at 63-69.

67. *Id.* at 14.

68. *Id.* at 44-46, 51-54.

69. *Id.* at 54-55.

70. *Id.* at 51. “[W]ater contaminated by human wastes is one of the biggest killers in the developing world.” *Id.*

71. *Id.* at 73.

72. *Id.* at 55. “[T]he Kyoto Protocol would require that, around 2010, industrial countries reduce their greenhouse gas emissions to a level, on average, at least 5 percent below what those emissions were in 1990.” *Id.*

73. See *id.* at 55-56. “The Bush administration itself recently published a climate-change report containing some of the strongest statements to date from the U.S. government about how the world is getting hotter and the burning of fossil fuels is adding to the problem.” *Globe Warms; Bush Fiddles*, DENV. POST, July 14, 2002, at F1.

74. SPETH, *supra* note 1, at 56. The NAS study found that human activity is increasing greenhouse gases, causing global temperatures to rise. *Id.* Temperature increase and sea-level rise will continue into the twenty-first century and beyond. *Id.* Also, “[g]lobal warming could well have serious adverse societal and ecological impacts by the end of this century” *Id.* (citing NATIONAL RESEARCH COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY

Carbon dioxide is a by-product of fossil fuel combustion and a greenhouse gas.⁷⁵ Increased levels of greenhouse gases are causing global warming, which is causing planet-wide problems, including widespread glacial melting.⁷⁶ Polar ice melting causes sea levels to rise and may alter the Gulf Stream, resulting in catastrophic weather shifts.⁷⁷

Many scientists believe, as Speth explains, that “The most likely mechanism for abrupt climate change is disruption of ocean currents such as the Gulf Stream.”⁷⁸ Gulf Stream changes will impact the entire Northern Hemisphere, and all its inhabitants, with violent and drastic shifts in the weather.⁷⁹

This is but one of a myriad of consequences that will result from global climate change. Speth delivers the grim forecast: many experts predict that without major corrections by the end of the twenty-first century, it will be “impossible for about half of the American land to sustain the types of plants and animals now on that land.”⁸⁰ For example, the leafy trees that characterize New England—and its colorful autumns—may soon disappear.⁸¹

C. Loss of Ecosystems and Productive Lands

Illustrating the complex interactions of global ecology are problems of biological impoverishment.⁸² Biological impoverishment is both a result of environmental degradation and a cause of other harms.⁸³ Speth explains the ramifications, as forces behind “biotic impoverishment are

QUESTIONS (National Academy Press 2001)). See also Kevin E. Trenberth, *Stronger Evidence of Human Influences on Climate: The 2001 IPCC Assessment*, 43 ENV'T 8 (2001).

75. SPETH, *supra* note 1, at 3.

76. *Id.* at 58-59. See also Tim Apenzeller & Dennis R. Dimick, *Global Warming: Bulletins from a Warmer World*, NATIONAL GEOGRAPHIC, Sept. 2004, at 12. “From the Arctic to Peru, from Switzerland to the equatorial glaciers of Irian Jaya in Indonesia, massive ice fields, monstrous glaciers, and sea ice are disappearing, fast.” *Id.*

77. SPETH, *supra* note 1, at 60.

78. *Id.* (citing Robert B. Gagosian, *Abrupt Climate Change: Should We Be Worried?*, WOODS HOLE OCEANOGRAPHIC INSTITUTION, Jan. 27, 2003, at 8). Global warming is melting arctic ice caps, increasing fresh water in the Atlantic. *Id.* at 61. This dramatic “freshening” of the ocean could “both block the Gulf Stream’s release of heat and disrupt the ocean currents that pull the warm waters of the stream northward.” *Id.* Disruptions in the Gulf Stream will result in drastic weather disasters throughout the Northern Hemisphere. *Id.* at 60-61.

79. *Id.* at 61. “Today’s computer models suggest that a shutdown of the Gulf Stream would produce winters twice as cold as the worst winters on record in the eastern United States.” *Id.* at 60-61.

80. *Id.* at 16 (citing J.R. MALCOLM & L.F. PITELKA, ECOSYSTEMS AND GLOBAL CLIMATE CHANGE: A REVIEW OF POTENTIAL IMPACTS OF U.S. TERRESTRIAL ECOSYSTEMS AND BIODIVERSITY 11 (2000)).

81. *Id.* at 58. “[E]cological modeling show[s] that climate change in the second half of this century, if it is not slowed, will largely eliminate maple trees and the maple sugar industry from New England.” *Id.* (citing NATIONAL ASSESSMENT SYNTHESIS TEAM, CLIMATE CHANGE IMPACTS ON THE UNITED STATES: OVERVIEW 45 (2000); REPORT OF THE NEW ENGLAND REGIONAL ASSESSMENT GROUP, PREPARING FOR CLIMATE CHANGE: NEW ENGLAND REGIONAL OVERVIEW 39-42 (2001)).

82. See *id.* at 30-33.

83. See *id.* at 30.

operating on a global scale, stressing natural systems, homogenizing and simplifying them, and reducing biological diversity at a rate and scale not experienced for millions of years."⁸⁴ Biotic impoverishment reveals itself in the problems of deforestation and desertification.

1. Deforestation

One of the problems closely linked to air quality, global warming, and biodiversity is deforestation.⁸⁵ Trees and other fauna inhale carbon dioxide and exhale oxygen.⁸⁶ Forests also hold large amounts of carbon while they are alive, but carbon is released as harmful greenhouse gases when trees die or are burned.⁸⁷

In a recent article, Brian Kelly and Mark London evaluated the problems of deforestation in the Amazon region. The Amazon River Basin "is 80 percent the size of the continental United States and contains a fifth of the world's fresh water."⁸⁸ Its rainforests are "home to the planet's greatest storehouse of biodiversity."⁸⁹ Brazil, the largest of the Amazon nations, is also home to 60 to 90 million people who are living in poverty.⁹⁰ One expert on Amazonian preservation has said, "The main thing to save the forest is to keep the people out."⁹¹ But the economic temptation to convert forests to farm and ranch lands is great.⁹²

Assisting in the exploitation and annihilation of the world's forests is a global economy and loss of local control over local resources.⁹³ Conversely, a solution to deforestation presented by authors Roger Stone and Claudia D'Andrea would be "allocating responsibility for managing and

84. *Id.* at 33. The nine drivers of biotic impoverishment are land use conversion (i.e., development), land degradation, freshwater shortages, watercourse modification, invasive species, over harvesting, climate change, ozone depletion, and pollution. *Id.* at 30-33.

85. *Id.* at 36.

86. GURUSWAMY, *supra* note 12, at 1093. "Forest vegetation converts CO₂ to oxygen (O₂) in the presence of sunlight during photosynthesis." *Id.*

87. See Betsy Carpenter, *The Deep-Six Fix*, U.S. NEWS & WORLD REPORT, July 6, 2004, at 24-25 for a discussion of carbon and the prospects for carbon sequestering, naturally in forests or artificially through expensive and uncertain new technologies.

88. Brian Kelly & Mark London, *Home on the Tropical Range*, U.S. NEWS & WORLD REPORT, July 6, 2004, at 76.

89. SPETH, *supra* note 1, at 36.

90. Kelly & London, *supra* note 88, at 76.

91. *Id.* at 75 (quoting Phil Freanside, a scientist at the National Institute for Amazonia Research in Manaus).

92. *Id.* at 76. Brazilian developer Blairo Maggi explained, "It's very easy to defend the Amazon on the beaches of Rio or in the offices of Washington or London. But our families need jobs and homes." *Id.*

93. SPETH, *supra* note 1, at 40. "Critics of globalization charge that economic globalization and the World Trade Organization [WTO] are magnifying the trend toward expanded logging by encouraging high levels of foreign investment, weaker domestic regulation in the face of international competition, and loss of local community controls." *Id.* See also Jim Carlton, *'Greens' Target WTO's Plan for Lumber: Push to End Tariffs Could Intensify Logging in Old Forests*, WALL ST. J., Nov. 24, 1999, at A2.

protecting forests to the local groups and communities that depend on their healthy survival⁹⁴

If the underlying problems of population and poverty are addressed, local controls and the help of international financial aid could slow or even stop deforestation.⁹⁵ After evaluating a United Nations study, Speth optimistically concludes, “[W]e should be able to find a way to save the world’s ancient, intact forests.”⁹⁶

2. Desertification

Another threat to global health is desertification. Loss of vegetation increases carbon dioxide levels.⁹⁷ In turn, greenhouse warming threatens soil fertility, increases wind and water erosion, and may further destroy the plants that prevent soil loss.⁹⁸ As Speth explains, “The productivity of crop and grazing land is threatened by water and wind erosion, by the salinization and waterlogging of irrigated lands, and by overgrazing and devegetation.”⁹⁹

Desertification can lead to massive dust storms, like those that ravaged the Midwest in the 1930s and led to the nickname “the Dust Bowl.”¹⁰⁰ Years of drought in northwest China have created huge dust clouds.¹⁰¹ As one journalist recently observed, “The dust storms that blow up each spring can sweep east across the Korean peninsula and Japan, eventually reaching across North America.”¹⁰²

Desertification, like deforestation, must be addressed in terms of its underlying causes if we are to prevent humanity’s transformation of fertile, productive and living ecosystems into barren wastelands.¹⁰³

D. Loss of Protective Ozone in the Earth’s Atmosphere

Ozone in the lower atmosphere in high levels or as a component of smog can be harmful to human health.¹⁰⁴ Yet, as Speth explains, “ozone

94. SPETH, *supra* note 1, at 40 (citing ROGER D. STONE & CLAUDIA D’ANDREA, TROPICAL FORESTS AND THE HUMAN SPIRIT: JOURNEYS TO THE BRINK OF HOPE 5 (2001)).

95. Kelly & London, *supra* note 88, at 76-77.

96. SPETH, *supra* note 1, at 41 (citing *An Assessment of the Status of the World’s Remaining Closed Forests*, U.N. Environmental Programme, U.N. Doc. UNEP/DEWA/TR 01-2 (2001)).

97. See *supra* notes 85-87 and accompanying text for a discussion of plant life and carbon.

98. SPETH, *supra* note 1, at 16-17, 56-57.

99. *Id.* at 31.

100. H.E. DREGNE, DESERTIFICATION OF ARID LANDS 203 (Adli Bishay & William G. McGinnies eds., Harwood Academic Publishers 1983).

101. Jasper Becker, *China’s Growing Pains: More Money, More Stuff, More Problems. Any Solutions?*, NAT’L GEOGRAPHIC, March 2004, at 68, 80. See also Ann Schrader, *Latest Import from China: Haze*, DENV. POST, April 18, 2001, at A1. A dust cloud “several miles thick” traveled from China to Colorado in the spring of 1999, and scientists believe that increasing standards of living in China will only bring more desertification, pollution, and dust. *Id.* at A10.

102. Becker, *supra* note 101, at 80.

103. SPETH, *supra* note 1, at 30-33.

104. *Id.* at 54.

is a valuable component of the upper atmosphere, where it acts as a filter, absorbing harmful wavelengths of ultraviolet radiation."¹⁰⁵

Widespread use of chlorofluorocarbons (CFCs) in the twentieth century created a hole in the protective ozone layer "roughly the size of Russia and Brazil combined."¹⁰⁶ However, swift international action has made ozone a rare but exemplary environmental success.¹⁰⁷

E. Threatened and Endangered Species and the Importance of Biodiversity

Biodiversity is a relatively modern concept that refers to aspects of animal populations, independent of their numbers as they can exist in isolation, like in a zoo. As the World Resources Institute explains, the three aspects of biodiversity represent "the variety of genetically distinct populations within a given species; the ten million or so species of plants, animals and micro-organisms; and the diversity of ecosystems of which species are functioning parts."¹⁰⁸ Genetic diversity is essential to species' survival.¹⁰⁹

In 1982, Harvard professor E.O. Wilson testified before the U.S. Congress on the Endangered Species Act:

The worst thing that can happen during the 1980s is not energy depletion, economic collapse, limited nuclear war, or a conquest by a totalitarian government . . .¹¹⁰ The one process ongoing in the 1980s that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us.¹¹¹

105. *Id.*

106. *Id.* at 54-55.

107. *Id.* at 55. The Montreal Protocol, designed to restore the ozone layer, is a promising model of international cooperation: "With the cooperation of developing nations, scientists estimate that the ozone layer could fully recover by mid-century." *Id.* Speth calls the Montreal Protocol "the crowning achievement of global environmental governance." *Id.* at 95.

108. *Id.* at 25 (citing WORLD RESOURCES INST., ET AL., GLOBAL BIODIVERSITY STRATEGY GUIDELINES FOR ACTION TO SAVE, STUDY, AND USE EARTH'S BIOTIC WEALTH SUSTAINABLY AND EQUITABLY (1992)).

109. For example, cheetahs have become a poster child for biodiversity. See *Why Does the Cheetah Lack Genetic Diversity?*, Cheetah Conservation Fund, at <http://www.cheetah.org/?nd=aboutcheetah-03> (last visited Apr. 14, 2005). While cheetahs exist in sufficient numbers and breeding pairs, the fragile genetic combination that creates this speedy cat does not. *Id.* Geneticists have shown that lack of genetic diversity within the cheetah community make the species especially vulnerable to disease and birth defects. *Id.* The small breeding stock is most likely doomed, because the genetic diversity within the cheetah species has already been lost. *Id.*

110. SPETH, *supra* note 1, at 24 (quoting E.O. Wilson, GAIA: AN ATLAS OF PLANETARY MANAGEMENT, 159 (Norman Myers, ed., Anchor Books/Doubleday 1984) ("As terrible as these catastrophes would be for us, they can be repaired within a few generations.")).

111. *Id.* (quoting E.O. Wilson, GAIA: AN ATLAS OF PLANETARY MANAGEMENT 159 (Norman Myers, ed., Anchor Books/Doubleday 1984)).

Some conservationists are motivated by emotional and spiritual connections to the ailing natural world.¹¹² However, Speth looks past sentiment to outline two reasons biodiversity is important: “our ethical responsibilities and ecosystem services.”¹¹³ If humanity cannot be motivated by an ethical duty, pure self-interest will also support protection of biodiversity. The wealth of goods and services the environment provides, from resources such as trees and fish to services like pollination and photosynthesis, makes it beneficial, lucrative and in humanity’s self-interest to preserve biodiversity.¹¹⁴

F. Water

Water is everywhere, but not in limitless quality and quantity.¹¹⁵ Considering the sad state of global health, it is not surprising to discover that the planet’s largest component—water—is also ailing. Earth’s vast fresh and salt water ecosystems are both threatened today.¹¹⁶

1. Fresh Water Scarcities

As population, pollution and global temperatures increase, the demand for fresh water also will rise. Speth finds that “[a]ppropriation of freshwater supplies is . . . extensive, with widespread devastation of freshwater habitats.”¹¹⁷

Water already is scarce in much of the world. Speth reports, “40 percent of the world’s people [are] living in countries that suffer from serious water shortages.”¹¹⁸ The chief news editor at *Nature* magazine gave the grim forecast: “The water crisis is real. If action isn’t taken, millions of people will be condemned to a premature death.”¹¹⁹ Already, Speth notes, “water contaminated by human wastes is one of the biggest killers in the developing world.”¹²⁰

112. STEPHEN R. KELLERT, *KINSHIP TO MASTERY: BIOPHILIA IN HUMAN EVOLUTION AND DEVELOPMENT* 12 (Island Press 1997). As Kellert explains, there are aesthetic values inherent in nature: “living diversity is still an unrivaled contest for engaging the human spirit of curiosity, exploration and discovery, in an almost childlike manner.” SPETH, *supra* note 1, at 28.

113. SPETH, *supra* note 1, at 28.

114. Michael Satchell, *Trouble in Paradise*, U.S. NEWS & WORLD REPORT, July 6, 2004, at 70. The benefits of biodiversity are often termed in the “cure for cancer” argument. *Id.* “Some 40 percent of pharmaceuticals are derived from vascular plants, yet only a mere 2 percent of the 300,000 known flora that contain sap have been screened for their medicinal value. The elusive cure for cancer could lie in a tree, flower, or shrub, but what if that species is lost?” *Id.*

115. GURUSWAMY, *supra* note 12, at 578. “[A]ll too characteristically, humanity shows an astonishing disregard for maintaining the health of the hydrosphere—seemingly oblivious to the fact the total amount of water in the world is constant, neither to be increased (like timber or fish) nor to be diminished (like petroleum or coal).” *Id.*

116. SPETH, *supra* note 1, at 18, 85-86.

117. *Id.* at 16.

118. *Id.* at 32. (citing U.N. ENVIRONMENTAL PROGRAMME, *GLOBAL ENVIRONMENTAL OUTLOOK 3: PAST, PRESENT AND FUTURE PERSPECTIVES* 150 (Earthscan 2002)).

119. Peter Aldhous, *The World’s Forgotten Climate*, 422 NATURE 251, 251 (2003).

120. SPETH, *supra* note 1, at 51.

Professor William Slomanson has found that “[s]ome experts also believe that acquisition of water and water rights will soon become major sources of international conflict.”¹²¹ Impoverished and suffering regions, already riddled with political strife, may become embroiled in a life-or-death struggle for potable water.

The United States is already facing a fresh water crisis,¹²² especially in the arid west.¹²³ Recent drought has foreshadowed the inevitable conflicts that will come with an increase in western United States populations. As Interior Secretary Gail Norton predicts, “The drought is a warning signal . . . Water shortages will be repeated even in average rainfall years because there’s simply not enough supply to satisfy all the growing demands.”¹²⁴

2. Threats to the Health of the Oceans¹²⁵

The world’s oceans are home to complex and diverse ecosystems. But they also receive most of the world’s wastes.¹²⁶ Unfortunately, pollution¹²⁷ and global warming¹²⁸ are taking a huge toll on the planet’s hydrosphere.

Giant regions of oceanic ecosystems are going extinct. Speth gives the bad news: “Industrial processes such as manufacture of fertilizers and other human activities . . . [have created] at least fifty dead zones in the oceans, one the size of New Jersey in the Gulf of Mexico.”¹²⁹

121. SLOMANSON, *supra* note 53, at 586.

122. Marianne Lavelle & Joshua Kurlantzick, *The Coming Water Crisis*, U.S. NEWS & WORLD REPORT, July 6, 2004, at 58-63. Former EPA Administer Christie Todd Whitman warns that the quality and quantity of water is “the biggest environmental issue that we face in the 21st century.” *Id.* at 58.

123. *Id.* at 61. Aging aqua structures throughout the country, not only in the west, are in need of repair and many municipal drinking water supplies contain high levels of contaminants. *Id.* at 58.

124. Alex Markels, *The War Over Water*, U.S. NEWS & WORLD REPORT, July 6, 2004 at 64. Mark Twain is quoted saying that in the West, “whiskey is for drinking; water is for fighting over.” *Id.* Conflicts are already arising: conservationists, developers, farmers and ranchers, industries and others are vying for a finite and unpredictable resource. *Id.* at 64-66.

125. SPETH, *supra* note 1, at 16, 18-19, 52-54, 56-60.

126. GURUSWAMY, *supra* note 12, at 578. “Most of the world’s wastes—some twenty billion tons a year—end up in the sea, commonly without preliminary processing, usually to remain for years in coastal waters where they impair productive breeding grounds and pollute beaches.” *Id.*

127. SPETH, *supra* note 1, at 16. See also Thomas Hayden, *Trashing the Seas*, U.S. NEWS & WORLD REPORT, July 6, 2004 at 48, 48-49. Activist Charles Moore has observed “countless tons of plastic refuse . . . drifting on the high seas.” *Id.* at 48. Japanese scientists have found that plastic particles at sea act like a sponge for toxic chemicals, absorbing and concentrating them. *Id.* Plastic particles, which float on the ocean’s surface, “often end up in the ocean’s drifting, filter-feeding animals, like jellyfish.” *Id.* Many species, (including humans) feed on jellyfish. *Id.* As Moore explains: “That’s not likely to be good.” *Id.*

128. See *supra* notes 75-80 and accompanying text for a discussion of oceanic freshening and glacial melting.

129. SPETH, *supra* note 1, at 16 (citing JANE LUBCHENCO, *Waves of the Future: Sea Changes for a Sustainable World*, in *WORLDS APART: GLOBALIZATION AND THE ENVIRONMENT* 25 (James Gustave Speth ed., 2003); C. Yoon, A “Dead Zone” Grows in the Ocean, N.Y. TIMES, 20 January 1998, at F1).

The bad news gets worse as Speth continues: "Coral reefs and the life on them are now at great risk due to the combined impacts of coastal development and pollution, tourism, global warming, and destructive fishing practices."¹³⁰ Coral reefs are sensitive ecosystems and the freshening of seawater because of glacial melting, plus the effects of warmer surface and ocean temperatures, threaten to destroy them entirely.¹³¹ The forecasts are grim, and as Speth elaborates: "Indeed, painful to say, some observers believe that most of the world's coral reefs are already doomed."¹³² Even if all precautions to curb greenhouse gas emissions are taken immediately, it is unlikely that we can prevent the subtle increase in temperatures that scientists fear will cause coral bleaching and reef extinction.¹³³

Speth's urgent cry for quick actions is widely substantiated by the scientific data available. Indeed, investigation of the most recent scholarship reveals an unhealthy planet with a bleak future. However, because human activity is behind the pervasive destruction of the Earth's environment, it logically follows that human activity is the only force that can reverse the decline. An understanding of the multi-faceted problems points to a variety of solutions.

As a global community, we read the reports and realize that we *can* change our habits, from decimation of nature to preservation of nature.¹³⁴ New ethics show us that we *should* change.¹³⁵ But the underlying question upon which the future of life as we know it rests—*will* we change?—is up to us to decide.

III. IS PROFITABLE, YET SUSTAINABLE, DEVELOPMENT THE SOLUTION?

CAN THE INCENTIVES FOR EXPLOITATION (\$) = THE INCENTIVES FOR CONSERVATION (\$)?

*What good is money if you can't breathe the air?*¹³⁶

If money-making is behind our inefficient exploitation of global resources, will the potential for financial loss through resource exhaustion motivate a change in our ways? Proponents of sustainable development

130. SPETH, *supra* note 1, at 34. See also Jerry Hirsch, *Study: Coral Reefs Hurting: Pollution, overuse killing off species*, DENV. POST, Aug. 27, 2002, at A2. Reefs are considered key indicators of ocean health. *Id.*

131. SPETH, *supra* note 1, at 56–57.

132. *Id.* at 57–58. If you are hoping to visit the world's coral reefs before they go extinct—think again! The literal footprints left by well-intentioned but novice ecotourists is one cause of reef deterioration. LISA MASTNY, TRAVELING LIGHT: NEW PATHS FOR INTERNATIONAL TOURISM 41 (Worldwatch Institute, 159 (2001)).

133. SPETH, *supra* note 1, at 57–58.

134. *Id.* at 5. As Speth explains, "For more than two decades even nongeniuses like myself have known not only the gravity of the climate challenge but also more or less what to do about it. And, of course, little has been done." *Id.*

135. See *supra* notes 42–49 and accompanying text for a discussion of environmental ethics.

136. Becker, *supra* note 101, at 68.

hope so. Realizing the interdependence between economies and ecologies may be the key to creating a healthy environmental future. This section considers a comprehensive solution that addresses money and conservation, and their relationship to each other.

Section A addresses global issues in terms of an ecological interplay. Section B looks specifically at the financial aspects of the worldwide health crisis. Section C uses Speth's transitions to consider progressive change. Finally, Section D concentrates on the compromise that sustainable development represents.

A. The Fragile "Ecosystem" of Environment, Economy and Society

The social and political consequences of environmental destruction cannot be underestimated. When considering massive catastrophes such as war, nuclear holocaust and terrorism, international law professor William Slomanson conceded the dire consequences of ignoring global health: "[W]e may come to recognize that environmental degradation could cause the breakdown of international society as we now know it."¹³⁷ A healthy planet has "important ramifications . . . for human security and social stability."¹³⁸

Red Sky takes a comprehensive approach to environmental issues, addressing the entire problem-laden big picture. Due to the interdependence of organisms within an ecosystem, species preservation involves protection of entire habitats.¹³⁹ Similarly, issues of environmental health cannot be isolated entirely from the social, financial and political concerns that surround them.¹⁴⁰

The natural environment is an essential—but not exclusive—part of what sustains life as we know it. As Speth and others point out, this in-

137. SLOMANSON, *supra* note 53, at 585.

138. SPETH, *supra* note 1, at 7 (citing the COUNCIL ON ENVIRONMENTAL QUALITY & U.S. DEPT OF STATE, THE GLOBAL 2000 REPORT TO THE PRESIDENT: ENTERING THE TWENTY-FIRST CENTURY 4 (1980) [hereinafter GLOBAL 2000 REPORT]). Though the report was initially commissioned in hopes of silencing environmental outcries without making changes, scientific evidence of global decline and the severity of its consequences were impossible to ignore. SPETH, *supra* note 1, at 3. The report found that environmental threats "are inextricably linked to some of the most perplexing and persistent problems in the world—poverty, injustice and social conflict . . . Vigorous, determined new initiatives are needed if worsening poverty and human suffering, environmental degradation, and international tensions and conflicts are to be prevented." *Id.* at 8 (quoting GLOBAL 2000 REPORT, at 4).

139. SPETH, *supra* note 1, at 25. "The principal cause of individual species loss by far is habitat destruction." *Id.*

140. See *supra* notes 15 and 35 for a discussion of the social and political impacts of environmental degradation. See also Dr. Rajendra Ramlogan, *The Environment and International Law: Rethinking the Traditional Approach*, 3 VT. J. ENV'T 4, ¶ 136 (2001-02), available at <http://www.vjel.org/articles/articles/ramlogan.html> (last visited Apr. 14, 2005). Labeling the multitude of international agreements as "treaty congestion," Dr. Ramlogan decides, "having separate monitoring and non-compliance processes, meetings of parties, financing mechanisms, scientific sources and advice, dispute resolution systems, and technical assistance schemes—can only lead to chaos." *Id.* at ¶¶ 113, 136.

terdependence requires inclusive and multi-faceted approaches to our problems.¹⁴¹ Traditional, particularized approaches have failed to correct underlying causes of global environmental degradation.¹⁴²

Interrelated environmental problems require a comprehensive solution. Speth explains that “[i]f the first attempt at global environmental governance was aimed primarily at symptoms, future efforts must attack the disease itself.”¹⁴³ For example, Speth contends that the climate change convention¹⁴⁴ treated symptoms, while failing to cure the underlying disease: “The real problem may be poverty, weak and corrupt governments, or fossil fuels, or transportation, or chlorine-based organic chemistry, but the conventions were framed to address the surface worry rather than the deeper problems.”¹⁴⁵

Environmental issues rely on other life systems—economics, politics, culture—that surround them. Though some systems, such as environment and economy, appear to be antagonistic, their interconnectedness exemplifies a dependence among living systems. Diverse problems associated with global health are as parasitic, interdependent and mutually-sustaining as different organisms within an ecosystem.

B. Money is the “Root of All Evil,”¹⁴⁶ But What Would We do Without it?

There are financial aspects to almost every problem being addressed by environmental organizations today. It is naïve and simplistic to address environmental problems without confronting the economic incentives underlying ecological degradation.

However, money is also an essential part of environmental solutions. Speth quotes an old adage: “conservation without money is conversation.”¹⁴⁷ Well-placed economic aid is fundamental to the solution of our planet’s urgent environmental problems.¹⁴⁸

141. SPETH, *supra* note 1, at 151.

Global environmental challenges are closely interlinked. They cut across economic sectors and geographical regions. They cannot be addressed issue by issue or by one nation or even by a small group of nations acting alone. They are driven by powerful forces and will not yield to the modest efforts we have been mounting.

Id.

142. SPETH, *supra* note 1, at 132.

143. *Id.* at 119.

144. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 32 (1998).

145. SPETH, *supra* note 1, at 102.

146. *See id.* at 124. Speth looks to the world’s major religions and cites their doctrines that warn against “the perils of wealth.” *Id.*

147. *Id.* at 42.

148. *See id.* at 188-90. For example, money is used to buy conservation lands. *See id.* at 189-90. Hundreds of millions of dollars have launched the “hot spot” program, which will buy land reserves in regions of the world with the greatest biodiversity that have the greatest risk of habitat destruction. *See id.* The project will eventually cost billions. *See id.* at 189.

Money can help solve the problems, but pursuit of money is primarily what created them. Poverty drives environmental destruction.¹⁴⁹ Brazilian congressman Raul Jungman describes the situation in his country and others like it: "Poverty and misery and hunger. That's what destroys the environment."¹⁵⁰

Money-making has an antagonistic dependency on the environment.¹⁵¹ Exploitation of natural resources is extremely lucrative, but it is not without consequences.¹⁵² Short-sighted economics can consume resources.¹⁵³ Conservation efforts can block development altogether.¹⁵⁴ Also, businesses tend to resist legislation that will cut into profits: Speth explains that "[e]conomic pressures can lead to political decisions that undermine even well-crafted treaties."¹⁵⁵

However, developers and environmental activists must walk hand in hand if they are to ultimately preserve both of their interests. Speth warns, "If current trends continue, there will be large economic, social, and environmental costs to pay in the future."¹⁵⁶

149. See Rio Declaration on Environment & Development, June 14, 1992, 31 I.L.M. 874 (1992) [hereinafter RIO DECLARATION]. The Rio Declaration explicitly requires economic and humanitarian solutions to environmental problems: "All states and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world." *Id.* princ. 5, at 877. See also SPETH, *supra* note 1, at 42. Also, economic aid is a fundamental part of the attempt to alleviate international poverty. See *id.* Speth encourages, "development assistance and economic cooperation . . . debt relief or debt swaps or trade and investment arrangements." *Id.*

150. Kelly & London, *supra* note 88, at 76-77.

151. See SPETH, *supra* note 1, at 35-36. The findings of a recent World Resources Institute study of ecosystem health "starkly illustrate the trade-offs we have made between high commodity production and impaired ecosystems services, and indicate the dangers these trade-offs pose to the long-term productivity of ecosystems." *Id.* (quoting WORLD RES. INST. ET AL., WORLD RESOURCES 2000-2001, 51 (2000)).

152. See *id.* at 36. For example, "the World Bank estimates that the cost of air pollution in China's forests and crops exceeds five billion dollars annually." *Id.* at 53 (citing WORLD BANK, CLEAR WATER, BLUE SKIES: CHINA'S ENVIRONMENT IN THE NEW CENTURY (1997)).

153. See *id.* at 36. See also Garrett Hardin, *The Tragedy of the Commons*, 168 SCIENCE 1243, 1243 (1968). "The Tragedy of the Commons" is a phenomenon of human nature. See *id.* The typical example of a shared and limited resource is a shepherd's common pasture. *Id.* The temptation to add just one more animal is irresistible for each herdsman. *Id.* However, this tiny lapse of unrestrained self-interest is ultimately fatal to the whole common pasture. *Id.* Hardin continues:

Each man is locked into a system that compels him to increase his herd without limit in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.

Id.

154. See generally *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 153, 156-160 (1978) (stalling for years the construction completion of a multi-million dollar dam to discern the fate of a tiny regional fish species); *Portland Audubon Soc'y v. Babbitt*, 998 F.2d 705, 707 (9th Cir. 1993) (halting logging operations in Oregon to protect an endangered spotted owl).

155. SPETH, *supra* note 1, at 107. "Basically, our economic system does not work when it comes to protecting environmental resources, and second, the political system does not work when it comes to correcting the economic system." *Id.* at 133.

156. *Id.* at 36.

C. Speth's Eight Transitions Toward a Healthy Planet

After addressing the large picture of the interdependent systems that affect global health and narrowing his focus on the economics of environmental degradation, Speth presents his solutions.¹⁵⁷ He optimistically forecasts, "[T]hese transitions interact strongly, supporting each other and forming a whole that will one day define a qualitatively new epoch."¹⁵⁸

1. Transition One: A Stable or Smaller World Population¹⁵⁹

Speth refers to economist Partha Dasgupta who "argues that if women had a choice, they would opt for fewer children."¹⁶⁰ Population control typifies the intertwined workings needed for true reform. As birth control technology improves, women gain power, United Nations programs and financial aid continue, and families in developing nations gain access to control over their reproduction, population growth will slow.¹⁶¹

2. Transition Two: Free of Mass Poverty¹⁶²

Speth points out the tragic irony that "poverty contributes to environmental decline . . . [and] [e]nvironmental decline also contributes to poverty."¹⁶³ But he optimistically sees "prospects for widely shared prosperity."¹⁶⁴

Popular fiction writer Tom Robbins analogizes the absurdity of widespread poverty in a plentiful world: "It was akin to a starving woman with a sweet tooth lamenting that she couldn't bake a cake because she didn't have any ounces."¹⁶⁵ The world currently has enough resources to sustain its population. The problem is not availability—it is distribution.

157. See *id.* at 151. Speth addresses necessary and urgent future action. *Id.*

[T]his period can also become the watershed during which nations and peoples everywhere come together finally to deal with the problems massing on the environmental front. If we can make that happen, our legacy from these early decades of the new century will be a world sustained, not a world of wounds.

Id.

158. *Id.* at 152.

159. *Id.*

160. *Id.* at 121.

161. See *id.* at 153.

162. *Id.* at 154.

163. *Id.*

164. *Id.*

165. TOM ROBBINS, *SKINNY LEGS AND ALL* 463 (1990). The quote is prefaced by a discussion of the problems of poverty: "During periods of so-called economic depression, for example, societies suffered for want of all manner of essential goods, yet investigation almost invariably disclosed that there were plenty of goods available . . . What was missing was not materials but an abstract unit of measurement called 'money.'" *Id.* The passage concludes, "The loony legacy of money was that the arithmetic by which things were measured had become more valuable than the things themselves." *Id.* at 464.

Speth agrees that poverty is largely a problem of wealth distribution: "Eliminating large-scale poverty is not a crazy dream . . . [however,] a serious threat to achieving these goals is near-miserly development assistance."¹⁶⁶ Debt relief, trade regulation reform, economic aid, and shared technology can balance the inequity between developing and developed nations.¹⁶⁷

3. Transition Three: Environmentally Benign Technologies¹⁶⁸

Speth's third transition calls for "a worldwide environmental revolution in technology."¹⁶⁹ Advancing the technology that drives modern lifestyles is a pragmatic way to minimize its harmful side effects without halting consumption. Speth declares, "the principal way to reduce pollution and resource consumption while achieving expected economic growth is to bring about a wholesale transformation in the technologies that today dominate manufacturing, energy, transportation, and agriculture."¹⁷⁰

4. Transition Four: Environmentally Honest Prices¹⁷¹

Speth's fourth transition rests on innovative economics. His neo-classical economic model seeks "transition to a world in which market forces are harnessed to environmental ends, particularly by making prices reflect the full environmental costs."¹⁷²

He also discusses "natural capitalism," which shifts fundamental paradigms to greater appreciation of natural services. This environmentally friendly economic theory acknowledges human and natural capital and calls for increased efficiency and improved quality of products and services.

Natural capitalism also aspires to reform governments to be "based on the needs of people rather than business."¹⁷³ This new economic theory reverses "the economy's dependence on the environment."¹⁷⁴

166. SPETH, *supra* note 1, at 154.

167. *See id.* at 154-55.

168. *Id.* at 157.

169. *Id.*

170. *Id.*

171. *Id.* at 161.

172. *Id.* Speth lists some environmental economists' tools for reform: "securing property rights to overcome the 'tragedy of the commons' problem, tradable emission permits, pollution taxes, user fees, shifting subsidies from environmentally damaging activities to beneficial ones, and making polluters and others financially liable for damages they cause." *Id.* at 162.

173. *Id.* at 165-66 (quoting PAUL HAWKEN ET AL., *NATURAL CAPITALISM: CREATING THE NEXT INDUSTRIAL REVOLUTION* 6 (1999)).

174. *Id.* at 166.

5. Transition Five: Sustainable Consumption¹⁷⁵

Environmental challenges “require rethinking the utopian materialism that puts a premium only on unlimited economic expansion.”¹⁷⁶ Current practices of unbridled consumption have disastrous environmental impacts.¹⁷⁷

Speth offers high praise for the Environmental Grantmakers Association’s five-part plan for promoting sustainable consumption, calling it “an excellent agenda.”¹⁷⁸ The plan seeks to: 1) “[i]ncrease consumer awareness and choice”; 2) “[p]romote innovative policies”; 3) “[a]ccelerate demand for green products”; 4) “[d]emand corporate accountability”; and 5) “[e]ncourage sustainable business practices.”¹⁷⁹

6. Transition Six: Knowledge and Learning¹⁸⁰

Speth attributes part of the current environmental crisis to an uninformed public: “If we had invested generously in environmental education at all levels over the past three decades, we would not be in as dangerous a situation as we find ourselves today.”¹⁸¹ The issues surrounding global health are so obvious and urgent that in many cases, they speak for themselves.

175. *Id.*

176. *Id.* at 113. Speth also refers to the “growth-at-all-costs imperative.” *Id.* at 138. In the U.S., the phenomenon can individually be termed as an American sense of entitlement, facilitating 24-hour consumerism. *Id.* This rampant consumer need goes beyond the limits of sensibility and budget, facilitating epidemics in obesity and consumer debt. *Id.* As Speth explains: “Can a country make a decision that enough is enough? Or is our current system so geared to high economic growth that it is either up, up and away or down, down and out?” *Id.* at 192.

177. *Id.* at 83. The American aspects of problematic over-consumption and over-production have been characterized by Yale professor Charles Reich:

In the second half of the twentieth century [the] combination of an anachronistic consciousness characterized by myth, and an inhuman consciousness dominated by the machine-rationality of the Corporate State, have, between them, proved utterly unable to manage, guide, or control the immense apparatus of technology and organization that America has built. In consequence, this apparatus of power has become a mindless juggernaut, destroying the environment, obliterating human values, and assuming domination over the lives and minds of its subjects.

CHARLES REICH, *THE GREENING OF AMERICA* 18 (Random House 1970). Speth defines the international forces behind environmental deterioration and concludes, “[T]hese forces—notably the steady expansion of human populations, the routine deployment of inappropriate technologies, the near universal aspiration for affluence and high levels of consumption, and the widespread unwillingness to correct the failures of the unaided market—are indeed powerful and will not yield to half-measures.” SPETH, *supra* note 1, at 99.

178. *Id.* at 168-69.

179. *Id.* (quoting JOEL MAKOWER & DEBORAH FLEISCHER, ENVTL. GRANTMAKERS ASS’N, *SUSTAINABLE CONSUMPTION AND PRODUCTION: STRATEGIES FOR ACCELERATING POSITIVE CHANGE 2-3* (2003)).

180. *Id.* at 169.

181. *Id.* at 170. Speth calls for increased scientific research, reporting and education; he also indicts the media for failing to inform the public of environmental problems. *See id.*

Unfortunately, there does not seem to be a wide audience listening. Speth calls for educational reforms: "a well-ordered democracy demands much larger investments in scientific and environmental literacy."¹⁸²

7. Transition Seven: Taking Good Governance Seriously¹⁸³

8. Transition Eight: Culture & Consciousness¹⁸⁴

These final transitions are large enough to each constitute a whole chapter in *Red Sky*.¹⁸⁵ They are addressed and expanded upon in Part IV of this paper.¹⁸⁶

D. Toward Compromise and New Conventions: Sustainable Development

As the United Nations Environmental Program realized:

Human activities are progressively reducing Earth's life-supporting capacity at a time when rising populations and consumption are making increasingly heavy demands on the planet. The combined destructive impacts of a poor majority struggling to stay alive and an affluent minority consuming most of the world's resources are undermining the very means by which all people can survive and flourish.¹⁸⁷

After decades of frustrated antagonism, pragmatists have tried to reconcile economic advancement and environmental protection. A powerful think tank of world leaders determined, "unless major complementary initiatives are undertaken to bring environmental, economic, and social objectives together in the new synthesis called *sustainable development*, liberalizing trade and reviving growth could lead to short-term gains and long-term disaster."¹⁸⁸

Sustainable development "seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future."¹⁸⁹ For example, regional fishing industries, which often support

182. *Id.* at 171.

183. *Id.* at 172.

184. *Id.* at 191.

185. *See id.* at 172-201.

186. *See infra* Part IV and accompanying text.

187. SPETH, *supra* note 1, at 132 (quoting INT'L UNION FOR THE CONSERVATION OF NATURE AND NATURAL RES. ET AL., WORLD CONSERVATION STRATEGY: LIVING RESOURCE CONSERVATION FOR SUSTAINABLE DEVELOPMENT I (1980)).

188. *Id.* at 146 (quoting the "Open Letter to the Heads of State and Government of the Americas," written by a group of political leaders including Fernando Henrique Cardoso (later president of Brazil) and Al Gore, Jr. (later vice-president of the U.S.), in THE NEW WORLD DIALOGUE ON ENV'T AND DEV. IN THE W. HEMISPHERE, COMPACT FOR A NEW WORLD I (1991)).

189. *Id.* at 141 (quoting WORLD COMM'N ON ENV'T AND DEV., OUR COMMON FUTURE 40 (1987)).

totally dependent communities, cannot over harvest to the point of extinction without completely ceasing to exist.¹⁹⁰

As Speth explains, sustainable development rests on “the ‘triple bottom line’ of economy, environment, and society.”¹⁹¹ It seeks to satisfy current developing needs without compromising long-term renewable resources.¹⁹² As opposed to immediate economic gratification that consumes a resource entirely and spits out pollution, sustainable development and replenishable harvest levels ensure that more money, ultimately, can be made over a long period of time.¹⁹³ This new concept protects and furthers both economic and environmental interests.

IV. INNOVATIVE JAZZ, FUSION AND OTHER RADICAL IDEAS TO SAVE OUR SICK PLANET

*It seems increasingly probable that Western culture is in the middle of a fundamental transformation . . . [rethinking] how to understand and (re)constitute the self, gender, knowledge, social relations, and culture without resorting to linear, teleological, hierarchical, holistic, or binary ways of thinking and being . . . [new ideologies] should encourage us to tolerate and interpret ambivalence, ambiguity, and multiplicity as well as to expose the roots of our needs for imposing order and structure no matter how arbitrary and oppressive these needs may be.*¹⁹⁴

If Speth's first six transitions are steps toward sustainability, Speth's final two transitions, in governance and attitude, empower the first six.¹⁹⁵ Speth's seventh transition involves government, private business and communities working both separately and together for new and effective governance.¹⁹⁶ Because the systems currently in place are fail-

190. See Thomas Hayden, *Emptying Out the Oceans*, U.S. NEWS & WORLD REP., July 6, 2004, at 40, 42-43. “In a series of recent reports, scientists warn that fish stocks are dangerously overexploited and that many of the methods that provide the fish, crustaceans, and mollusks we so enjoy are destroying the very ocean habitats and ecosystems needed to rebuild the stocks.” *Id.* at 40.

191. SPETH, *supra* note 1, at 180.

192. See *id.* at 180-81.

193. See *id.* While clear-cutting exemplifies the short-sighted and environmentally destructive practices that have created the global environmental health crisis, well-managed forestry is a good example of sustainable development. See generally David Whitman, *From Stumps, Lush Forests*, U.S. NEWS & WORLD REPORT, July 6, 2004, at 77, 77-78. In non-tropical, industrialized countries, almost ninety percent of forests are managed. *Id.* at 78. Good management has produced successful reforestation: “From 1990 to 2000, while tropical forests shrank by 12 percent, non-tropical forests increased by 3 percent.” *Id.* at 77.

194. Jane Flax, *Postmodernism and Gender Relations in Feminist Theory*, in FEMINISM/POSTMODERNISM 39, 56 (Linda J. Nicholson ed., 1990).

195. SPETH, *supra* note 1, at 171.

These six of eight transitions are vital to the success of the effort to chart a new course in global environmental protection. But they will not get far without strong and effective government action motivated by an aroused and active citizenry. The needed transitions in governance and in public attitudes and motivation are taken up in the . . . [final] chapters.

Id.

196. *Id.* at 172-90.

ing, it is time for reorganization and innovation.¹⁹⁷ Section A addresses several ways we can take good governance seriously.¹⁹⁸

Speth's final, and eighth, transition is a progressive change in personal consciousness and community culture that appreciates and protects the natural world.¹⁹⁹ Primarily, we need a new understanding of worldwide mechanisms such as society and economy.²⁰⁰ Section B discusses a new paradigm that understands these mechanisms not as independent and irreconcilable forces, but in terms of an interworking, interdependent, and evolving system.²⁰¹

Section C looks outside Speth's work to other fields of scholarly inquiry.²⁰² First, Subsection One considers undoing the concept of dualism. Postmodern philosophy presents an ironic, inclusive, dialectic paradigm that escapes binary thinking and the artificial constructs of dual polarities.²⁰³ Next, Subsection Two considers how a departure from the colonial Western paradigm of command and control power politics, to a scheme driven by ethics and honor, may be a more effective means of enacting and enforcing change.²⁰⁴

In Subsection Three, an examination of the rhetoric of rights shows that many proclamations are merely aspirational ghost rights, as opposed to living, empowered rights.²⁰⁵ And finally, Subsection Four looks at the many schools of feminist thought to help define and create a feminized consciousness that encourages harmonious human interaction with the planet.²⁰⁶

Emerging throughout Part IV and throughout *Red Sky* is a theme of inclusiveness.²⁰⁷ This inclusiveness avoids unnecessary choice by synthesizing disparate concepts, accepting pluralism and paradox. Also, perhaps ironically, reflecting the American consumerist attitude of needing everything and more—an insatiable, consuming juggernaut, but in

197. See *id.* at 149 ("Despite the repeated alarms rung over the past quarter century, the earth's ills have deepened and widened. Our initial effort at global environmental governance has fallen short, and we must turn with urgency to new approaches and to a new generation of environmental leaders.").

198. *Id.* at 172-90. This is Speth's seventh fundamental transition and the title of Chapter Nine.

199. See *id.* at 149 ("And, at the heart that drives the flow of these many [new governance] actions, there must be a deeper change, a different way of seeing ourselves in relation to the planet on which we live.").

200. *Id.*

201. *Id.* at 151. "Global environmental challenges are closely interlinked. They cut across economic sectors and geographical regions." *Id.* A revised inclusive paradigm echoes the admonitions of "Social Ecology." See *infra* notes 263, 313, 374 and accompanying text.

202. See *infra* notes 254-328 and accompanying text.

203. See *infra* notes 260-69 and accompanying text.

204. See *infra* notes 270-85 and accompanying text.

205. See *infra* notes 286-304 and accompanying text.

206. See *infra* notes 305-28 and accompanying text.

207. SPETH, *supra* note 1, at 201.

the realm of ideas.²⁰⁸ Speth inclusively decides that three factors have “stymied real progress on the global environmental front.”²⁰⁹

But although Speth can list problems, he also lists solutions.²¹⁰ His eight transitions work inclusively: “these transitions interact strongly, supporting each other and forming a whole”²¹¹ Accepting *Red Sky*’s underlying theme of inclusiveness epitomizes and facilitates the paradigm transformations that Speth calls for.²¹² Why choose to limit ourselves when we can have it all?²¹³

A. Taking Good Governance Seriously

Speth’s seventh transition is multi-faceted.²¹⁴ New models of action and government come from The World Business Council for Sustainable Development (WBCSD), an international group comprised of major corporations, the goals of which are primarily economic.²¹⁵ The group’s first system is the old, ineffective one: “FROG,” which stands for “First Raise Our Growth.”²¹⁶ FROG places primacy on immediate economic gain, at the expense of the environment.²¹⁷

WBCSD’s second concept is GEOpolity, which is the traditional world of law and government.²¹⁸ But their third and fourth systems, JAZZ and FUSION, are part of the revolutions in paradigms and culture that respond to the urgent need for true innovation.²¹⁹ JAZZ is about pri-

208. SPETH, *supra* note 1, at 183.

209. SPETH, *supra* note 1, at 200.

Is the main barrier simply the United States, which has dragged its feet on issue after issue since initially giving leadership in protecting Earth’s ozone shield? Or are we confronting a typical situation in politics where noneconomic goals need higher priority, more urgency, and some new policies and approaches? Or is the problem deeply structural, rooted fundamentally in our economic system and our international system of sovereign states? My conclusion . . . is that it is all three.

Id.

210. *Id.* at 152.

211. *Id.*

212. *Id.*

213. By “having it all” I mean to say that we can save the planet and continue to live comfortably. As Speth explains, “[t]he initiatives that are recommended to advance the eight transitions do not fundamentally threaten the prevailing economic and international systems.” *Id.* at 201.

214. *Id.* at 172-90. Chapter Nine addresses *governance*, which is governing through government and more. *Id.* (emphasis added). “‘Global governance’ does not imply global government; nor does it include only the actions of governments. Many non-government communities, for-profit and not-for-profit, are already playing large roles in the governance of the global environment as we know it today.” *Id.* at 77.

215. *Id.* at 172.

216. *Id.*

217. *Id.* (citing WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT, *EXPLORING SUSTAINABLE DEVELOPMENT: GLOBAL SCENARIOS, 2000-2050: SUMMARY* (1997)).

218. *Id.* at 172-73.

219. *Id.* at 173, 188-89.

vate businesses and citizens enacting their own change,²²⁰ while FUSION is the harmonious inclusion of both GEOpolity and JAZZ.²²¹

1. FROG: First Raise Our Growth²²²

The attitude that growth and money-making need to be immediate and should come at all costs quickly is becoming outmoded.²²³ As Speth describes it, "FROG is thus a business-as-usual scenario leading to huge environmental costs."²²⁴ A system that places economics above all else may have short-term financial pay-offs, but the long-term consequences are disastrous.²²⁵

Even economically, resource depletion, overharvesting to extinction, and desertification of productive lands are bad for business.²²⁶ Thus Speth concludes, "FROG leads not just to a wrecked global ecosystem but to a wrecked global society as well. It is a path to failure even in the eyes of the business-oriented WBCSD."²²⁷

2. GEOpolity:²²⁸ The Traditional World of International Law

One of the common arguments used to dispute the "Tragedy of the Commons" scenario²²⁹ is that modern governments do not let self-interest go completely unchecked and that regulation can solve environmental problems.²³⁰ Speth acknowledges the important role of govern-

220. *Id.* at 173, 184-89.

221. *Id.* at 188-90.

222. *Id.* at 172.

223. *Id.*

224. *Id.*

225. *Id.*

226. *Id.* at 31-32.

227. *Id.* at 172. *See also* WORLD BUSINESS COUNCIL, *supra* note 217, at 19-21.

228. SPETH, *supra* note 1, at 172-73.

229. *See supra* note 153 for a discussion of the "Tragedy of the Commons."

230. GURUSWAMY, *supra* note 12, at 244-46 (reprinting Julian Simon, *There Is No Environmental, Population or Resource Crisis*, in *LIVING IN THE ENVIRONMENT: AN INTRODUCTION TO ENVIRONMENTAL SCIENCE* 29 (1992)). Julian Simon is considered a scholarly opponent of environmentalism. However, even his "there is no environmental crisis" analysis relies on strong and enforceable international laws. "But the world's physical conditions and the resilience in a well-functioning economic and social system enable us to overcome such problems . . ." *Id.* at 246. Unfortunately, regulations are not doing enough and there are still many government subsidies that encourage pollution and waste, so his argument suffers for its faith in systems that pragmatically fall far short of simply "overcoming" environmental problems. Simon's ideas also seem to rely on the fact that environmentalists (who do not agree with him) will take charge and solve everyone else's problems.

[W]e do not say that a better future happens automatically or without effect. It will happen because men and women—sometimes as individuals, sometimes as enterprises working for profit, sometimes as voluntary nonprofit-making groups, and sometimes as governmental agencies—will address problems with muscle and mind, and will probably overcome . . .

Id. Even critics like Simon, who appear to disagree with Speth, agree with his assertions that strong government, environmental regulation and citizen action are essential to global sustenance. *Id.* Speth debunks Julian Simon and Danish skeptic Bjorn Lomborg and their anti-environmental ideologies. SPETH, *supra* note 1, at 113-15.

ment with his Seventh Transition, but he also says that today's system needs improvement.²³¹

Speth explains, "[U]nder 'GEOpolity,' people turn to governments to focus the market on environmental and social ends, and they rely heavily on intergovernmental institutions and treaties."²³² Although international law has had its successes, reliance on GEOpolity alone is not enough.²³³

Speth decides that finding real solutions to the global environmental crisis "requires new action on two mutually supportive fronts: pursuing a very different approach to GEOpolity, and taking JAZZ [explained below] to scale, enlarging it until it is a major part of the solution."²³⁴

3. JAZZ: People and Businesses Acting for the Earth, by Themselves²³⁵

The WBCSD calls its third scenario JAZZ. As Speth describes: "people and businesses create a world full of unscripted, voluntary initiatives that are decentralized and improvisational, like jazz Governments facilitate more than regulate"²³⁶

Consumers exercise great power with their spending. JAZZ-type innovations represent what Benjamin Cashore has called, "a startling new phenomenon . . . the emergence of domestic and transnational private governance systems that derive their policymaking authority not from the state, but from the manipulation of global markets and attention to customer preferences."²³⁷

Speth argues that "green JAZZ is the most exciting arena of ongoing action today. Environmental groups, consumer groups, and other

231. SPETH, *supra* note 1, at 173. It has been over thirty years since the international community proclaimed, "The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments." STOCKHOLM DECLARATION OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT, 11 I.L.M. 1416, Part I (1972). It has also been twelve years since the world community declared: "States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem." RIO DECLARATION, *supra* note 149, at princ. 7. Yet despite these and other treaties, as well as other international and domestic laws, the health of the global environment has continued to deteriorate to the urgent crisis stage we are currently facing. *Id.* Speth determines that we need a "transition in governance to capable, accountable, and democratic governments." SPETH, *supra* note 1, at 173. He also says, "there must be new procedures, institutions and understandings if GEOpolity is to do the job." *Id.* at 175.

232. SPETH, *supra* note 1, at 172.

233. *Id.* at 173.

234. *Id.* See *infra* Part V for a discussion on possible new approaches to international government.

235. *Id.* at 184-88.

236. *Id.* at 173.

237. *Id.* at 184-85 (quoting Benjamin Cashore, *Legitimacy and the Privatization of Environmental Governance: How Non State Market-Driven (NSMD) Governance Systems Gain Rule Making Authority*, 4 GOVERNANCE 15, 503-04 (2002)).

NGOs [non-government organizations], private businesses, state and local governments, foundations, religious organizations, investors, and others are behind a remarkable outpouring of initiatives that are the most hopeful things happening today.”²³⁸

While governments and international laws are tools for change, Speth concludes that “[g]lobal problems have gone from bad to worse, governments are not yet prepared to deal with them, and, at present, many governments, including some of the most important, lack the leadership to get prepared.”²³⁹ So action by others, through improvisational, self-reliant JAZZ, is an important part of an inclusive plan for global sustenance.

4. FUSION: Incorporating the Best of Both Worlds²⁴⁰

Just as the world’s mechanisms of economy, politics, ecology and society are part of an integrated, interdependent system, GEOPolity and JAZZ share the same goals and, thus, can work together. Speth explains:

“One reason we are hearing so much JAZZ, especially from the business community, is because of all the classical music being played over in GEOPolity Hall. And what is it when jazz and classical music are brought together? It’s called FUSION, of course, and we are beginning to see it as well.”²⁴¹

So just as the global community must come together to solve our planet’s urgent health crisis, we must also bring together as many methods and mechanisms as possible.²⁴² JAZZ and FUSION, and the harmonious cooperation they represent, are part of the innovations in thought and action that can affect real—and urgently needed—change.

*B. The Most Fundamental Transition of All*²⁴³

Resolving many environmental problems will require shifting cultural paradigms. Speth describes his eighth transition as quintessential: “[t]he most fundamental transition is the transition in culture and consciousness.”²⁴⁴ Speth refers to the “new consciousness” of scholars such as the Global Scenario Group. “They favor a ‘new sustainability’ scenario where society turns ‘to nonmaterial dimensions of fulfillment . . . the quality of life, the quality of human solidarity and the quality of the

238. *Id.* at 184.

239. *Id.* at 97.

240. *See id.* at 188.

241. *Id.* at 188. *See supra* notes 207-13 and accompanying text for a discussion of inclusion.

242. *See infra* note 260-69 for a discussion on abandoning dualities for more inclusive and co-operational paradigms.

243. SPETH, *supra* note 1, at 191. This is the title of Chapter Ten, and the eighth, and final, transition that Speth hopes will eventually form “a whole that will one day define a qualitatively new epoch.” *Id.* at 152.

244. SPETH, *supra* note 1, at 191.

earth Sustainability is the imperative that pushes the new agenda."²⁴⁵

As the Leopoldian land ethic evolves,²⁴⁶ concepts of humanity as conquerors of nature may some day seem barbaric.²⁴⁷ But concepts of stewardship also may fail, because they reflect a subtle arrogance and implied possession and dominance over the natural world.²⁴⁸

The new paradigm may be one of an indentured servant—utterly reliant, indebted, and working hard to satisfy a demanding master. As Speth points out, we owe the planet, and our debt is large.²⁴⁹ Centuries of unchecked development have devoured natural resources and left us with a sick ecosystem. Speth acknowledges that “[t]he global environment is . . . powerfully affected by human activities and requires management.”²⁵⁰

The image of an indentured servant is a bleak one. A kinder image is one of humanity in the age-old metaphor of an infant relying on its mother, earth. However, this kinder image of nurturing and sustenance may be too kind, because humanity will never be weaned. It is precisely because we forgot our infantile dependence on Mother Earth that we find ourselves in this dire predicament today.²⁵¹ As Speth explains, “[t]he fact is, we are utterly dependent on ecosystems to sustain us.”²⁵²

245. *Id.* at 193 (quoting PAUL RASKIN ET AL., *GREAT TRANSITION: THE PROMISE AND LURE OF THE TIMES AHEAD*, 44-45 (Stockholm Institute/Tellus Institute 2002)).

246. See Timothy N. Jenkins, *Economics and the Environment: A Case of Ethical Neglect*, 26 *ECOLOGICAL ECON.* 151, 153, 159-62 (1998).

[T]here is a clear postmodern re-emergence of a Leopoldian ‘land ethic’ in the West, which is slowly . . . changing public policy and popular culture. Such an ethic is premised on the idea that an individual is a member of an interdependent community, with all that this implies with regard to social and antisocial conduct, and that the community’s boundaries are extendable to include ‘land’ in its broadest sense (i.e. the natural world).

Id.

247. SPETH, *supra* note 1, at 24. “Leopold’s ‘land ethic’ . . . changes the role of homo sapiens from conqueror of the land-community to plain member and citizen of it.” *Id.* (quoting RODERICK FRASIER NASH, *THE RIGHTS OF NATURE: A HISTORY OF ENVIRONMENTAL ETHICS* 63-77 (1989)).

248. See *id.* at 110. “At the root of America’s negative role is what can only be described as a persistent American exceptionalism, at times tinged with arrogance.” *Id.* Speth also notes President Bush’s reluctance to cooperate with United Nations programs, refusal to sign or ratify treaties, and recent refusal to even attend conferences on the environment. “[T]he lion’s share of the blame must go to the wealthy, industrial countries and especially to the United States, which, since the Montreal Protocol, has not accorded global-scale environmental challenges the priority needed to elicit determined, effective responses.” *Id.* at 116.

249. See *id.* at 21. “We now live in a full world. An unprecedented responsibility for planetary management is now thrust upon us, whether we like it or not. This huge new burden, for which there is no precedent and little preparation, is the price of our economic success.” *Id.*

250. *Id.* at 78. “The global environment is more of an integrated system than the global economy. It is even more fundamental to human well-being.” *Id.* Speth calls for a “Declaration of Dependence—the economy’s dependence on the environment.” *Id.* at 166.

251. *Id.* at 138 (“This view of the world—that nature belongs to us rather than we to nature—is powerful and pervasive, and it has led to much mischief.”).

252. SPETH, *supra* note 1, at 26.

From the water we drink to the food we eat, from the sea that gives up its wealth of products, to the land on which we build our homes, ecosystems yield goods and services that

However we choose to envision it, the changes needed to create a healthy global ecosystem cannot come without transition to a new respect for humanity's reliance on a fragile planet. Earth Charter eloquently expresses the changes needed:

The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air. The global environment with its finite resources is a common concern of all peoples. The protection of Earth's vitality, diversity, and beauty is a sacred trust.²⁵³

C. Incorporating Creative Ideas from other Realms of Scholarship

Speth warns, "it is business as usual that is utopian, whereas creating a new consciousness is a pragmatic necessity."²⁵⁴ Invoking Einstein's adage that you cannot solve problems with the mindset that created them, Speth has called for a fundamental revolution in culture and paradigm. The following four subsections examine failed concepts such as duality,²⁵⁵ Eurocentric superiority,²⁵⁶ reliance on ghost rights,²⁵⁷ and male domination.²⁵⁸ Casting off these detrimental constructs are essential steps toward creating a new consciousness of inclusiveness, diversity, powerful living rights and gender equality.²⁵⁹

1. Undermining Traditional Duality

One of the products of Enlightenment thinking is organization of the world into binary polarities: good/evil, male/female, man-made²⁶⁰/natural, and rational/emotional.²⁶¹ However, the organic world does not fit so comfortably within these extreme artificial constructs. As postmodernists bring new philosophies of being, objectification and un-

we can't do without. Ecosystems make the Earth habitable: purifying air and water, maintaining biodiversity, decomposing and recycling nutrients, and providing myriad other critical functions.

Id.

253. THE EARTH CHARTER, *supra* note 33.

254. *Id.* at 196.

255. See *infra* notes 260-69 and accompanying text.

256. See *infra* notes 270-85 and accompanying text.

257. See *infra* notes 286-304 and accompanying text.

258. See *infra* notes 305-28 and accompanying text.

259. See *infra* notes 260-328 and accompanying text.

260. Decisions on gendered language have a unique position in historical discussions. In many instances, decisions made by the political power structures of "humanity" are reflections of a dominantly male, patriarchal mindset. Therefore, conversion to gender-neutral language is not always ideologically appropriate. "[T]erminology . . . is sexist . . . the inevitable result of the long exclusion of women from the realm of international politics and law [and] a tangible symbol of one of the silences of international law." GURUSWAMY, *supra* note 12, at 14. Because women were largely silent as the paradigm emerged, it is fair to say "man-made," not humanity-made, versus natural.

261. See Peter H. Huang, *International Environmental Law and Emotional Rational Choice*, 31 J. LEGAL STUD 237, 244 (2002) ("Rene Descartes envisioned such a rigid separation or dualism between body and mind.").

decidables²⁶² to the intellectual table, environmentalists can use these tools to deconstruct the culture of global environmental degradation and its reliance on dualistic thinking.²⁶³

One of the grave dangers of binary thinking is the traditional mindset that pits man against nature.²⁶⁴ We should not wage war against the planet, which can continue its life without us, just as it did when dinosaurs went extinct. We need Mother Earth more than she needs us.²⁶⁵

Undermining dualistic, binary logic will help in the work toward pragmatic solutions to our global health crisis. Viewing humanity as part of nature, not diametrically opposed to nature, is an essential cultural transition.²⁶⁶ Also, abandoning absolute polar opposites facilitates compromise, inclusion,²⁶⁷ and cooperation.²⁶⁸ Sustainable development rests on the idea that the economy and the environment need not face off in

262. JACK REYNOLDS, UNDERSTANDING DERRIDA 46 (Jack Reynolds & Jonathan Roffe eds., 2004) ("An undecidable . . . is something that cannot conform to either polarity of a dichotomy . . .").

263. John Clark, *What is Social Ecology?*, in RENEWING THE EARTH: THE PROMISE OF SOCIAL ECOLOGY 5, 5-11 (John Clark ed., 1990), reprinted in GURUSWAMY, *supra* note 12, at 306. Clark describes Social Ecology's rejection of binary categorization:

A dualism that sets spirit against matter, soul against body, humanity against nature, subjectivity against objectivity, and reason against feelings. A dualism that is intimately related to the social divisions that are so central to the history of civilization: ruler versus ruled, rich versus poor, . . . male versus female, in short, the dominant versus the dominated.

Id.

264. *See supra* note 260.

265. *See supra* notes 250-52 and accompanying text for a discussion of humanity's infantile dependence on Mother Earth. "We incline to other pernicious habits of thought . . . seeing the natural world as a resource for the economy rather than seeing the economy as nested in the natural world." SPETH, *supra* note 1, at 139.

266. THE EARTH CHARTER, *supra* note 33, at the Preamble:

We are at once citizens of different nations and of one world in which the local and global are linked . . . The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature.

Id.

267. *See supra* notes 207-12 and accompanying text for discussion of inclusion.

268. Christopher C. Joyner & George E. Little, *It's Not Nice to Fool Mother Nature! The Mystique of Feminist Approaches to International Environmental Law*, 14 B.U. INT'L L.J. 223, 240 (1996).

Dialectical reasoning examines processes that bring together ideas which appear to be antithetical to one another. Construction of a dialectic occasions the 'organic emergence' of links between certain ideas that at first blush appear contradictory . . . [T]wo 'diametrically opposed' images in the dialectic thus are vigorously made to reflect off one another, casting similar and different shadows. Both the similarities and differences between the two images are important to recognize. Dialectic synthesis does not permit clear labeling of the dichotomies as mutually exclusive or self-evidently incompatible.

Id. Donna Haraway goes beyond a dialectic model to a model for "an ironic political myth faithful to feminism, socialism and materialism," which has analogous lessons for creating practical environmental solutions. Donna Haraway, *A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s*, in FEMINISM/POSTMODERNISM 190 (Linda J. Nicholson ed., 1990). "Irony is about contradictions that do not resolve into larger wholes, even dialectically, about the tension of holding incompatible things together because both or all are necessary and true." *Id.*

opposition: we do not have to choose between healthy economies and healthy ecosystems because we can have both.²⁶⁹

2. Rethinking the Dominant and Domineering Western Paradigm

In many ways, the current environmental crisis is a byproduct of colonial rule and the mindset that European, male, and Christian ideologies were superior.²⁷⁰ This self-serving paradigm entitled colonizers to dominate and exploit the rest of the world.²⁷¹ Many developing nations resist international law today as a product and, thus, reflection, of this skewed paradigm.²⁷² Some also perceive environmentalism as a luxury or even conspiracy that richer nations have proliferated to inhibit developing nations' growth.²⁷³ Speth addresses the problem in terms of Northern and Southern hemispheric distinctions.²⁷⁴

Western oppression links concerns over an exploited environment to concerns of oppressed peoples. For example, one of international law's primary feminist works discusses the analogous worldviews of African cultures and women.²⁷⁵ Also, an international task force found that environmental ethics mirror the paradigms of many indigenous peoples.²⁷⁶ These parallels illustrate how eroding the dominant colonial mindset will liberate exploited peoples and exploited ecosystems. The civil rights movements of the past two hundred years have been efforts to

269. See *supra* notes 187-93 and accompanying text for a discussion of sustainable development.

270. See generally, NOAM CHOMSKY, *YEAR 501: THE CONQUEST CONTINUES* (South End Press 1993) Chomsky discusses European colonists' oppressive exploitation of the Americas:

The major theme of this Old World Order was confrontation between the conquerors and the conquered on a global scale. It has taken various forms, and been given different names: imperialism, neocolonialism, the North-South conflict, core versus periphery, G-7 (the 7 leading state capitalist industrial societies) and their satellites versus the rest. Or, more simply, Europe's conquest of the world.

Id. at 3.

271. *Id.*

272. MOHAMMED BEDJAOUI, *TOWARDS A NEW INTERNATIONAL ECONOMIC ORDER* 49-50 (1979). "International law made use of a series of justifications and excuses to create legitimacy for the subjugation and pillaging of the Third World, which was pronounced uncivilized." *Id.*

273. SPETH, *supra* note 1, at 107-08.

274. *Id.* at 107-08, 174-75.

275. Hilary Charlesworth et al., *Feminist Approaches to International Law*, 85 AM. J. INT'L L. 613, 617-22 (1991).

276. See GURUSWAMY, *supra* note 12, at 313-14 (citing IUCN INTER-COMMISSION TASK FORCE ON INDIGENOUS PEOPLES, INDIGENOUS PEOPLES AND SUSTAINABILITY: CASES AND ACTIONS 36-38 (1997)). In contrast to the Western paradigm of man conquering nature, "Indigenous Peoples frequently view themselves as guardians and stewards of nature. Harmony and equilibrium among components of the Cosmos are central concepts in most indigenous cosmologies." *Id.* at 314. While refusing to over-generalize because, "[t]his ethic cannot be regarded as universal," the task force did offer prevalent themes among indigenous cultures. *Id.* They include cooperation, strong family ties (including past and future generations), self-sufficiency through reliance on local natural resources, and "restraint in resource exploitation and respect for nature, especially for sacred sites." *Id.*

cast off colonial legacies, impacting the rights of ethnic and racial minorities, indigenous peoples, women and the environment.²⁷⁷

A new worldview will benefit all who are exploited by Western models of oppression. Speth envisions a “new consciousness . . . [that] breaks with anthropocentrism and contempocentrism”²⁷⁸ Replacing the oppressive and exploitative paradigm that created the global health crisis will benefit all who are dominated.

This new culture may borrow from the world’s other cultures, as well as from psychology and socio-economic theory.²⁷⁹ One suggestion is for “a different model of compliance with international environmental law, soft or hard, that is based on the motivation of not wanting to lose face in the international community.”²⁸⁰ Making environmental policies honorable and relying on self-monitored compliance may be a more realizable task than trying to force external sanctions upon the unwilling.

Western “command and control” politics rely on third-party enforcement and external exertions of power.²⁸¹ However, as Huang indicates, in world with weak laws and a high level of deference to national sovereignty, “compliance . . . cannot ultimately rest solely on enforcement by external sanctions.”²⁸² Even if traditional “command and control” policies were feasible, which Speth points out is thus far a practical impossibility,²⁸³ they may not be entirely desirable as the exclusive tools of international environmental governance.²⁸⁴ In the end, it may be far more effective to appeal to a new morality and self-governance than to

277. SPETH, *supra* note 1, at 193-96. Speth notes that, “the potential for conscious evolution is evident in great social movements that societies have already experienced, such as the abolition of slavery, the civil rights movements, and the collapse of communism and the Soviet empire.” *Id.* at 196. Speth continues with an admonition: “our global civilization had better move rapidly to modify its cultural evolution and deal with its deteriorating environmental circumstances before it runs out of time.” *Id.* at 193 (quoting PAUL R. EHRlich, HUMAN NATURES: GENES, CULTURES, AND THE HUMAN PROSPECT 330 (2000)).

278. SPETH, *supra* note 1, at 192. Anthropocentrism is a human-centered paradigm that places people above all else to the detriment of the natural world. *Id.* at 138. Speth defines contempocentrism as “the habit of thought that discounts the future in favor of the present.” *Id.*

279. Huang, *supra* note 261, at 241. “Microeconomic theorists originally formulated and developed rational choice models to mathematically analyze the pure theory of individual consumer behavior.” *Id.* Huang follows the scholarship that applies rational choice theories to political science and international relations. *Id.* at 241-42. Huang goes on to incorporate theories about the importance of emotions in rational choice making and the over-all relevance of this theorizing to the study of law. *Id.*

280. *Id.* at 248. “There is evidence that a desire to avoid the loss of face motivates countries in the context of international negotiations.” *Id.* at 253. Though foreign to many Westerners, the concept of behaving honorably and saving face is prevalent and extremely powerful in Eastern cultures. *Id.*

281. SPETH, *supra* note 1, at 162-63 (discussing the “command and control” model as applied to economics).

282. Huang, *supra* note 261, at 249.

283. SPETH, *supra* note 1, at 75. “[A]ttempts so far at solving environmental ills have fallen short . . . the responses mounted by the international community appear pitifully weak.” *Id.* “[T]he bottom line is that these treaties and their associated agreements and protocols do not drive the changes that are needed.” *Id.* at 96.

284. Huang, *supra* note 261, at 253.

continue to rely exclusively on the external—and failing—colonial method of coercion and punishment.²⁸⁵

3. The Rhetoric of Rights: Discerning Living Rights from Ghosts

Author and poet Oscar Wilde, in his work *Critic as Artist*, bestows the highest power of art creation to the art critic: "For the highest criticism deals with art not as expressive, but as impressive, purely."²⁸⁶ Rights are also impressive: one can express one's rights from the rooftops until one goes hoarse, like a tree falling alone in a forest, but unless those rights are recognized by others, they are essentially dead, and merely aspirations or dreams. They are ghost rights.

There is much discourse surrounding rights and legal implications of these rights.²⁸⁷ One of the feminist criticisms of international law is its creation of rights without practical meaning.²⁸⁸ A true revolution in consciousness should reflect a distinction between living rights and mere ghosts. Living rights are valuable, relevant, and powerful. They produce tangible changes and receive the utmost respect and deference.²⁸⁹ To be

285. See SPETH, *supra* note 1, at 191-202.

286. OSCAR WILDE, *THE PORTABLE OSCAR WILDE* 84 (Richard Aldington & Stanley Weintraub, eds., Penguin 1974). Art creation through critique is "the highest kind." *Id.* at 85.

It treats the work of art simply as a starting-point for a new creation. It does not confine itself—let us at least suppose so for the moment—to discovering the real intention of the artist and accepting that as final. And in this it is right, for the meaning of any beautiful created thing is, at least, as much in the soul of him who looks at it as it was in his soul who wrought it. Nay it is rather the beholder who lends to the beautiful thing its myriad meanings, and makes it marvelous for us, and sets it in some new relation to the age, so that it becomes a vital portion of our lives, and a symbol of what we pray for, or perhaps of what, having prayed for, we fear that we may receive.

Id. at 85-86.

287. See Joyner & Little, *supra* note 268, at 146. "In a feminist analysis, however, rights are, to some extent, linguistic promises that accomplish little change in the area of gender equality. While the thrust of a right to a healthy environment certainly is correct, the right's genuine practical implications are not as clear." *Id.*

288. Charlesworth, *supra* note 275, at 634-43. "Feminist scholars have argued that, although the search for formal legal equality through the formulation of rights may have been politically appropriate in the early stages of the feminist movement, continuing to focus on the acquisition of rights may not be beneficial to women." *Id.* See also Joyner & Little, *supra* note 268, at 255-57. Many international instruments assert "in different ways a like-minded legal entitlement: all peoples have the right to enjoy a wholesome and robust environment that promotes quality of life and fundamental social and economic well-being." *Id.* at 255. However,

[R]ights may assert profound hopes, but they do not, in and of themselves, bring about the realization of the content of those hopes or that right. Rights require legal implementation and active support by policy-makers. Unfortunately, the acknowledged human right to a healthy environment, which is extolled and purportedly ensured by numerous international agreements, suffers from the lack of implementation and enforcement by national governments.

Id.

289. The rights enumerated in the U.S. Constitution are an example of "living rights." U.S. CONST. Amen. I-X. The Bill of Rights is defended and enabled by a strong judiciary. U.S. CONST. ART. III. Other assertions must yield: laws that violate rights will be struck down. *Id.* The right to a fair trial, for example, means that the accused receive legal counsel (even if the people, essentially the opponent, have to pay for it with public defenders). See generally *Gideon v. Wainwright*, 372 U.S. 375 (1963) (stating that violations of these rights may nullify any proceedings); see generally

truly alive, the right to something must have that right *because* complementary counterparts allow or enable it. Rights must reciprocally receive enunciated duties and responsible parties that ensure that rights are recognized, fully enabled and have actual meaning.

Unfortunately, even some rights recognized by the United Nations carry no real force or practical impact.²⁹⁰ These phantoms are truly scary—by giving the false appearance of change, they can slow progressive movements. Also, ghost rights allow the powerful to fight against needed action with an arsenal of words that carry no impact.²⁹¹ Recognizing ghost rights ensures that concerned activists are not satiated with benign rhetoric.²⁹²

While attainment of rights certainly has profound emotional and psychological implications, real power comes from obligations, duties and responsibilities of other parties.²⁹³ Courts of international law have refused to enforce ghost rights. The International Court of Justice enunciated this in the *Asylum* case: “[t]he Colombian Government must prove that the rule invoked by it is in accordance with a constant and uniform usage practised by the States in question, and that this usage is the ex-

Miranda v. Arizona, 384 U.S. 436 (1966) (holding that a violation of the Fifth Amendment nullified defendant's conviction).

290. The United Nations has announced the right of all people to be free from hunger and poverty. U.N. INT'L COVENANT ON ECONOMIC, SOCIAL & CULTURAL RIGHTS, Article 11, available at http://www.unhcr.ch/html/menu3/b/a_cscr.htm (Jan. 3, 1976). While the covenant calls upon signing members to enact legislation empowering this right, the treaty has not been fulfilled, as recent famines evidence. How this right will be realized, and who exactly will be responsible for empowering it, is to be decided domestically. Because many signing nations have refused to accept complete responsibility, the right of all people to be free from hunger is more of a dream or aspiration than a living right.

291. See GURUSWAMY, *supra* note 12, at 75 (citing HANS KELSEN, PRINCIPLES OF INTERNATIONAL LAW 454–56 (R. Tucker ed., 2d ed. 1966)). “The term ‘norm’ designates the objective phenomenon whose subjective reflections are obligation and right. The statement that the treaty has ‘binding force’ means nothing but that the treaty is or creates a norm establishing obligations and rights of the contracting parties.” *Id.* at 75. In terms of customary international law, enforceability relies on “a right belonging to one party and a duty lying on the other party. Without that nexus of legal obligation, and the *opinio juris* which recognizes it, there is no custom.” *Id.* at 103. See also Elizabeth Olson, *Forum on Torture Hears of U.S. Efforts to End Police Brutality*, N.Y. TIMES, May 11, 2000, at A19 (despite the fact that the United States has signed and ratified treaties pronouncing the human right to be protected from torture, the United States conceded the truth of an Amnesty International report finding “institutionalized” torture throughout the United States).

292. Recognizing the pain in ironic and hollow words, Jane Jacobs explains: “There is a quality even meaner than outright ugliness or disorder, and this meaner quality is the dishonest mask of pretend order, achieved by ignoring or suppressing the real order that is struggling to exist and be served.” JANE JACOBS, THE DEATH AND LIFE OF GREAT AMERICAN CITIES 15 (1961).

293. For a discussion of the emotional implications of rights, see Patricia J. Williams, *Alchemical Notes: Reconstructing Ideals from Deconstructed Rights*, 22 HARV. C.R.-C.L. L. REV. 401, 431 (1987). “‘Rights’ feels so new in the mouths of most black people. It is still so deliciously empowering to say. It is a sign for and a gift of selfhood that is very hard to contemplate reconstructing . . . at this point in history.” *Id.* Recognizing ghost rights should in no way belittle the hard work of activists who have won the acknowledgment of rights. However, their movements will be best served by truly empowering the rhetoric with action that really helps the powerless and rightless. See also SPETH, *supra* note 1, at 194 “[I]t is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.” *Id.*

pression of a right appertaining to the State granting asylum and a duty incumbent on the territorial State."²⁹⁴

Responsibilities give rights their power: meaning both that (1) duties instilled in a second party enable and empower the rights of the primary party and that (2) parties (developed nations) actually give rights (like the human right to eat) their (the nation's) power (aid). Future generations may have a valid right to visit living coral reefs, and arguably the reefs have a valid right to exist. Unfortunately, because no one organization has ever assumed responsibility for the healthcare of coral reefs, this right is probably unrealizable—a ghost.²⁹⁵

Rights also are restrictively impressive, not boundlessly expressive, because one right ends where the other begins. Rights often dissolve into phantoms when they are unprotected and can be intruded on by the perceived rights of another. Many regional debates are clothed in the rhetoric of rights. Fishermen, loggers and farmers (among others) assert their right to earn a living over environmental rights. Their right will mean nothing, however, if the resources on which they depend (fish, trees, and soil and water) are exhausted. Their right must be protected, perhaps by self-restraint, to continue to live and have meaning.

Some sovereign rights, such as the right to bear nuclear weapons, are self-empowering simply through the "might-makes-right" physics of power—the global community acknowledges its responsibility to concede through silence. Also, the bestowing of some rights may appear to be unilateral exercises of self-restraint. However, they are typically self-serving adherence to custom so the right-giver can enjoy the same custom. Because most nations want unrestricted development of their own natural resources, international law recognizes that States have a "sovereign right to exploit their own resources pursuant to their own environmental and developmental policies . . ."²⁹⁶

Principle 2 also contains the protective provision that States have a "responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States."²⁹⁷ While state responsibility has occasionally been enforced,²⁹⁸ it is only upon the con-

294. *Asylum Case (Colombia v. Peru)*, 1950 I.C.J. 266, 276 (1950).

295. SPETH, *supra* note 1, at 57–58. Despite numerous treaties on the protection of the oceans, coral reefs have not been adequately protected and some observers believe that they are "doomed." *Id.* at 58. Because there is no responsible party and duty to protect it, the coral reefs have lost their right to exist. *Id.* See also *supra* notes 130–33 and accompanying text.

296. RIO DECLARATION, *supra* note 149, at princ. 2.

297. *Id.*

298. See generally *Trail Smelter Arbitration (U.S. v. Can.)* (1941) 3 U.N.R.I.A.A. (1938) (1949). Washington state farmers claimed damage caused by a Canadian smelter's air pollution. *Id.* Because both parties agreed to be bound by the arbitration, a tribunal held Canada liable and ordered payment of some (not all prayed for) damages to the United States. *Id.*

cession of the State to jurisdiction.²⁹⁹ There were no suits—let alone damages awarded—for any of the injured parties after the world’s largest environmental disaster.³⁰⁰ There is simply no international environmental agency with the power to enliven many bestowed rights.³⁰¹ These rights remain dead on-the-books rhetoric.

So, while creating and acknowledging rights is an important step, empowering and enlivening rights is essential. As Speth’s work illustrates, we cannot be lulled into complacency by the appearance of rights in big-sounding international treaties. Investigation shows that laws and practice often disregard espoused human, environmental or other rights.³⁰² Also, perceiving a right to something does not automatically entail open-ended empowerment. One “right to” may overstep another, so understanding the power dynamics between rights and duties helps effectuate self-restraint and delineate living rights.

Also, Speth’s work is practical because he articulates obligations and calls for the imposition of duties. Throughout the global community, pages are overrun with talk about “the right to,” but Speth offers real options for change when he says “the right because.” He actually tells the reader how to empower their right.³⁰³

Sometimes, the duty is to refrain from asserting one’s perceived rights. To realize humanity’s universal right to a healthy environment, Speth calls for a true measure of self-control:

[O]ur duty to exercise a conserving and protecting restraint extends . . . to the community of life—animal and plant—that evolved here with us. There are limits beyond which we should not go in disrupting or changing this community of life, which, after all, we did not create. Although our dominion over the earth may be nearly absolute, our right to exercise it is not.³⁰⁴

299. *Military & Paramilitary Activities (Nicar. v. U.S.)*, 1986 I.C.J. 14, 110-12 [hereinafter *Military & Paramilitary Activities*]. Although the United States was found liable for harm caused to Nicaragua by the United States’ support for Contra rebels, the United States has never paid the damages ordered by the court. *Id.*

300. The nuclear accident at Chernobyl, in the former Soviet Union, is clearly transboundary harm. “Scientists estimate that up to 600,000 people outside of the Soviet Union have been adversely affected by the nuclear fallout.” GURUSWAMY, *supra* note 12, at 552. But no one has ever held the Soviet government accountable for the damage. *Id.* at 550-52.

301. RIO DECLARATION, *supra* note 149, at princ. 1. “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.” *Id.*

302. SPETH, *supra* note 1, at 176.

303. *Id.* at 152-228. Speth’s eight transitions are all ways to enliven the espoused universal right to a healthy environment. *Id.* at 152. Also, following the tenth chapter, Speth lists activist organizations and their contact information, transition by transition. *Id.* at 203-28. Going beyond a rhetoric of rights, Speth actually enables the reader with tools and information to empower their activism.

304. *Id.* at 5 (quoting U.S. COUNCIL ON ENVIRONMENTAL QUALITY, GLOBAL ENERGY FUTURES AND THE CARBON DIOXIDE PROBLEM iii-viii (Government Printing Office, 1981)).

4. Feminism/ist Movement/s and the Environmental Cause

As Speth begins his chapter on transitions in culture, he says, "[t]he change that is needed can be best put as follows: in the twentieth century we were from Mars but in the twenty-first century we must be from Venus—caring, nurturing, and sustaining."³⁰⁵ Women and feminism (in all its forms) play an essential role in a new cultural consciousness. Principle 20 of the Rio Declaration sets forth, "[w]omen have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development."³⁰⁶

Women already exercise their power, or show the unwelcome consequences of squelching it, through population rates.³⁰⁷ In many ways, the women's movement, like the environmental movement, functions as part of a living interdependent system incorporating economics, politics, sociology and more. Moreover, the women's movement, like the environmental movement, can both inspire and benefit from the casting off of the exploitative, oppressive and destructive legacies of colonialism, reflected in politics, economies, societies, and more.

Feminizing our worldview should not replace one inequitable power structure with another. It is not simply acquiring the right for women to exploit like men.³⁰⁸ Rather, feminizing paradigms can synthesize the best of traditional actions with the best of new approaches. Following from the abandonment of dualism³⁰⁹ and colonial anthro-contempo-

305. SPETH, *supra* note 1, at 191. Speth may be criticized for borrowing from feminism without giving proper credit. Though uncited, this admonition appears to reference the book *MEN ARE FROM MARS, WOMEN ARE FROM VENUS* by John Gray, PhD., especially because the three adjectives for a Venus paradigm—caring, nurturing, and sustaining are characteristics typically associated with femininity. This may be a glaring oversight. However, it may also be out of respect for certain schools within feminism that resist the biological determination inherent in blanket gender generalizations. It can be fairly argued that feminism, by undoing duality and incorporating ironic contradictions to liberate women (and men) from restrictive dualist stereotypes, has undone itself and would prefer to be called humanism.

306. RIO DECLARATION, *supra* note 149, at princ. 20.

307. See *supra* notes 159-61 and accompanying text for a discussion of women and population growth.

308. CATHERINE A. MACKINNON, *FEMINISM UNMODIFIED: DISCOURSES ON LIFE AND THE LAW* 4-5 (Harvard Univ. Press 1987). As MacKinnon explains:

With few exceptions, feminism applied to law has provided no critique of the state of its own, and little insight into specific legal concepts from the standpoint of women's experience of second-class citizenship. Particularly in its upper reaches, much of what has passed for feminism in law has been the attempt to get for men what little has been reserved for women or to get for some women some of the plunder that some men have previously divided (unequally) among themselves. This is not to argue that women should be excluded from the spoils of dominance on the basis of sex, exactly. Rather it is to say that it is antithetical to what women have learned and gained, by sacrifice chosen and unchosen, through sheer hanging on by bloody fingernails, to have the equality we fought for turned into equal access to the means of exploitation, equal access to force with impunity, equal access to sex with the less powerful, equal access to the privilege of irrelevance. As male academics have been able to afford to talk in ways that mean nothing, so also women . . . if this is feminism it deserves to die.

Id.

309. See *supra* notes 260-69 and accompanying text.

Eurocentrism³¹⁰ is a transition in consciousness that embraces traditionally feminine ideas of inclusion,³¹¹ community, and cooperation.³¹² This is the transition that Speth advocates—a new culture of caring.³¹³

Carol Gilligan's work *In a Different Voice*³¹⁴ uses innovative child development concepts to help formulate a feminine perspective: the "ethic of care."³¹⁵ Her studies revealed that girls invoke different problem-solving ethics than boys. Girls tend to invoke an

'ethic of care' attitude . . . [G]irls place a high level of importance on 'relationships, responsibility, caring, context, [and] communication.' Boys, on the other hand, employ an 'ethic of rights' or 'ethic of justice' mind-set, which tends to emphasize principles of right and wrong, fairness, logic, rationality, and winners and losers, while ignoring context and relationships.³¹⁶

As we teach our sons and daughters to play nicely together, can we learn from them? Can we reconcile and recreate a world where it is logical to be caring, rational to consider context and fair to consider relationships?³¹⁷

Although some feminist theorists would argue against Gilligan's generalized distinctions based on gender,³¹⁸ citing them as a product of a problematic social structure,³¹⁹ it is naïve and impractical to ignore the uniqueness of female experience.³²⁰ On one hand is a distinctive charac-

310. See *supra* notes 270-85 and accompanying text.

311. See *supra* notes 207-13 and accompanying text for a discussion of inclusion.

312. SPETH, *supra* note 1, at 201. "Down one path, [expected economic] . . . growth can protect, regenerate, and restore the environment. It can provide sustainable livelihoods for the world's poor and lead to large improvements in quality of life for all." *Id.*

313. SPETH, *supra* note 1, at 191. This new paradigm can also be discussed in terms of Social Ecology. See Clark, *supra* note 263, at 5-11. "Social Ecology proposes a principle of *ecological wholeness*, which Bookchin defines as 'a dynamic unity of diversity' in which 'balance and harmony are achieved by ever-changing differentiation.'" *Id.* (quoting MURRAY BOOKCHIN, *THE ECOLOGY OF FREEDOM: THE EMERGENCE AND DISSOLUTION OF HIERARCHY* 24 (1981)).

314. CAROL GILLIGAN, *IN A DIFFERENT VOICE: PSYCHOLOGICAL THEORY AND WOMEN'S DEVELOPMENT* 164 (1982).

315. *Id.*

316. Joyner & Little, *supra* note 268, at 237.

317. GILLIGAN, *supra* note 314, at 164.

318. See Owen Flanagan & Kathryn Jackson, *Justice, Care and Gender: The Kohlberg-Gilligan Debate Revisited*, in *FEMINISM & POLITICAL THEORY* 37, 39 (Cass R. Sunstein, ed., 1990).

319. See Joyner & Little, *supra* note 268, at 266 n.78. "Males and females are both capable of accommodating either the 'ethic of care' or 'ethic of justice.'" *Id.* at 254. Joyner & Little explain that Flanagan & Jackson "argue that the care-justice differentiation does not mandate that people employ either of these orientations all of the time." *Id.* The acceptance of an inclusive paradigm would indicate that it is possible to synthesize both. See Charlesworth, *supra* note 275, at 616. Joyner & Little describe the attack on Gilligan's theory as "[c]oncerns . . . that identification of a 'distinctive feminine morality' could impede the prospects for feminist international law attaining more 'universal validity.'" Joyner & Little, *supra* note 268, at 238. See also Flanagan & Jackson, *supra* note 318, at 39.

320. Joyner & Little, *supra* note 268, at 238.

Why deny the reality of difference? To recognize that men and women reason in different ways and come to moral decisions through different processes does not perforce perpetuate male power. Nor does it admit to any female inferiorities or male superiorities.

ter—woman.³²¹ On the other hand, we have feminists who reject this “women’s voice” concept ideologically as a reinforcing product of biological determinism.³²² And on the other hand we have feminists who primarily and fundamentally reject any science or discourse as gender-biased and flawed.³²³ And on yet another hand, we have radical feminist theorists who favor inclusion to the point of paradox, who agree and disagree with everyone.³²⁴

The fact that we have four hands also illustrates the limits of dualistic thinking and traditional metaphors.³²⁵ It reveals the need for us to

Rather, it provides more solid ground on which women can assert their own moral considerations.

Id.

321. Charlesworth, *supra* note 275, at 615 (“Much feminist scholarship has been concerned with the identification of a distinctive women’s voice that has been overwhelmed and underestimated in traditional epistemologies.”). But attendant to that fundamental concept are worlds of ideas of what it means to be feminine or female or human.

322. See MACKINNON, *supra* note 308, at 4-5.

323. Charlesworth, *supra* note 275, at 645 n.6 (“Some continental European, particularly French, feminists have pursued a different set of concerns from those of Anglo-American feminists. They have undertaken the task of deconstructing the dominant masculine modes of speech and writing.”). See also LUCE IRIGARAY, *SPECULUM OF THE OTHER WOMAN* 137 (Gillian C. Gill trans., 1985), noting:

But man only asks (himself) questions that he can already answer, using the supply of instruments he has available to assimilate even the disasters in his history. This time at any rate he is prepared to lay odds again, and, give or take a few new weapons, he will make the unconscious into a property of his language. A disconcerting property, admittedly, which confuses everything he had long since assigned meaning to. But that, it seems, is not the most important thing at stake. The really urgent task is to ensure the colonization of the new ‘field,’ to force it, not without splintering, into the production of the same discourse. And since there can be no question of using the same plan/e [sic] for this ‘strange’ speech, this ‘barbarous’ language with which it is impossible to conduct a dialogue—read monologue—the discovery will be set out hierarchically, in stages. Will be brought to order. By giving here a little more play to the system, here a little less. The forms of arrangement may vary, but they will all bear the paradox of forcing into the same representation—the representation of the self/same—that which insists upon its *heterogeneity*, its *otherness*.

Id.

324. CATHERINE MACKINNON, *TOWARD A FEMINIST THEORY OF THE STATE* 241-44 (1989).

Inequality on the basis of sex, women share. It is women’s collective condition. The first task of a movement for social change is to face one’s situation and name it. The failure to face and criticize the reality of women’s condition, a failure of idealism and denial, is a failure of feminism in its liberal forms. The failure to move beyond criticism, a failure of determinism and radical paralysis, is a failure of feminism in its left forms . . . As sexual inequality is gendered as man and women, gender inequality is sexualized as dominance and subordination . . . The next step is to recognize that male forms of power over women are affirmatively embodied as individual rights in law.

Id. MacKinnon includes characterizing a distinctive “women’s voice,” as a primary step, with casting off of oppressive determinist labels. Her accommodation of divergent views reflects an inclusive paradigm. See SPETH, *supra* note 1, at 201. Speth applies this reconciliatory approach in his sustainability doctrine, his concepts of transition (implying a movement and not a constructed polarity switch, like legal-illegal), and his generally inclusive approach. *Id.* See also *supra* notes 207-13 and accompanying text.

325. Joyner & Little, *supra* note 268, at 239.

Often the male legal dimension is portrayed in asymmetrical and conflictive terms, for example, as right versus wrong, or legal versus moral, or good versus evil . . . or man versus nature. Feminists allege that the male reasoning process tends to filter options through

respect difference and to abandon labels and oversimplification,³²⁶ reflecting the importance of Speth's eighth transition to a new paradigm that is inclusive and reconciliatory rather than divisive and adversarial.³²⁷

Feminists and postmodernists and other -ists and -isms are rethinking thought and the thinking process. They are questioning words, discourse and the questions themselves. As long as these intellectual acrobatics serve as more than ends in themselves, they can be an essential part of restoring global health and solving environmental problems by helping us into Speth's transition of consciousness.³²⁸

A new consciousness that conforms to Speth's vision should replace dualism with inclusiveness, shed an exploitative "command and control" power regime for a paradigm of honor and self-restraint, insist that mere ghost rights be given enlivening power, and feminize a worldview to include human—not purely male or female—characteristics, while at the same time accepting the uniqueness of individual human experience.

V. LEGAL IMPLICATIONS

*The basic framework of policy formation tends to remain in place as long as the institutions of power and domination are stable, with the capacity to deflect challenges and accommodate or displace competing forces.*³²⁹

The momentum of Speth's transitions is the type of force that can knock the powers-that-be off balance and open the power structure up to change. Incorporating Speth's eight transitions, Part V will take ideas presented in Part IV, with the overall theme of inclusiveness³³⁰ and explore the practical applications of new paradigms to the world of law. Government and law are also organisms within the global ecosystem.

a sieve of these competing 'black and white' dualities, which may be implicitly related to gender hierarchies, political power, and social domination.

Id. However, contemporary philosophy has a response to dualistic thinking. "Dialectic synthesis does not permit clear labeling of the dichotomies as mutually exclusive or self-evidently incompatible." *Id.* at 240. "Proponents of feminist international law encourage the search for a deeper understanding of the commonalities across seemingly conflictive legal dichotomies." *Id.*

326. *Id.* at 266 n.28.

Nearly all feminists are too eclectic to fit neatly into any one category, and so it is misleading to set up categories or theories as though they worked in that limiting sort of way for feminists. Creating distinct or rigid categories within which to fit particular account or limit dialogue is a decidedly anti-feminist way of proceeding, as feminists generally oppose this sort of abstract conceptualization without attention to context and detail.

Id. (quoting FEMINIST JURISPRUDENCE AND THE NATURE OF LAW, INTRODUCTION TO FEMINIST JURISPRUDENCE 3, 9 (Patricia Smith ed., 1993)).

327. SPETH, *supra* note 1, at 201.

328. *Id.* at 191.

329. CHOMSKY, *supra* note 270, at 50.

330. See *supra* notes 207-13 and accompanying text for a discussion of inclusion.

Law dictates, defines and depends on politics, society, economics and other human systems—and vice versa.³³¹

Section A considers how emerging progressive concepts of liability—both public and private—could develop to help solve the global health crisis. Section B considers how a paradigm of inclusiveness would apply to Speth's seventh transition—taking good governance seriously.³³² This includes a new model for a much-needed international environmental governing body with real power.

A. The Implications of Expanded Liability

If big businesses cannot be motivated by moral obligations, perhaps legal duties will cause them to turn to ecologically beneficial practices. Customs are strongly influential in international law,³³³ so as JAZZ³³⁴ inspires private businesses to exercise sound environmental practices, the standard by which all behavior is measured (through norms and custom) will rise.³³⁵ As the consequences of environmental degradation are understood and as international governing bodies wield greater influence, concepts of liability are changing. This change could benefit global environmental health.

Businesses may be inspired to “go green” by the fear of liability in tort, as well as fines, sanctions and even criminal prosecution.³³⁶ One trend that is emerging is a FUSION³³⁷ of international tort law and business strategies.³³⁸ Speth explains that “the environment is becoming more central to business strategic planning.”³³⁹

331. SPETH, *supra* note 1, at 106. “[T]he potential success of international environmental law . . . has been undermined by the unfortunate tendency to neglect the social and political context in which international agreements are arrived at and then implemented.” *Id.* See also Gabcikovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7 (“[I]nternational law . . . needs to be multi-disciplinary, drawing from other disciplines such as history, sociology, anthropology, and psychology such wisdom as may be relevant for its purpose.”).

332. SPETH, *supra* note 1, at 172-90. “International environmental law is failing today on the big issues, but it need not.” *Id.* at 173.

333. See GURUSWAMY, *supra* note 12, at 102-03, for a discussion of customs becoming enforceable as law. *Id.* Certain customs may become “obligatory as a matter of law.” *Id.* These state practices will even become enforceable against parties outside the general practice, as a matter of binding international law. *Id.*

334. See *supra* notes 235–39 and accompanying text for a discussion of JAZZ.

335. SPETH, *supra* note 1, at 186. Embodying the spirit of JAZZ, several large companies have voluntarily agreed to adopt more eco-friendly practices. *Id.*

336. SLOMANSON, *supra* note 53, at 603-04. Fifty European states have drafted a treaty on criminal liability for environmental wrongs. *Id.* Among other things, the treaty prosecutes knowing pollution and negligence that results in harm to persons or “substantial damage to the quality of air, soil, water, animals or plants.” *Id.* The Preamble pronounces the gravity of environmental wrongs: “[E]nvironmental violations having serious consequences must be established as criminal offences subject to appropriate sanctions . . . perpetrators of such acts . . . [shall] not escape prosecution and punishment.” *Id.*

337. See *supra* notes 240-42 and accompanying text for a discussion of FUSION.

338. SPETH, *supra* note 1, at 187.

339. *Id.* Companies are voluntarily cleaning their emissions, issuing “sustainability reports” to stockholders, developing profitable sustainable products and enterprises, building new partnerships

Also, massive tort liability is taking on international dimensions. ChevronTexaco is currently involved in a \$6 billion suit for damages after its oil drilling operations caused human and ecosystem illness in Ecuador.³⁴⁰ If companies are made to pay for environmental harm, they will be encouraged both to avoid future liability through eco-friendly practices, and to incorporate environmental costs in their pricing.³⁴¹

Another consideration is whether future generations could have standing in suits to protect their inheritance. Could future generations, as legal entities with inheritable property rights, be recognized in suits to preserve finite resources? What about the potential for a child to sue a parent over depletion of non-renewable resources on inheritable properties, on behalf of future grandchildren (who have legally been given title upon death of parent and child)? Could this standing extend to heirs of public lands? If an ethical obligation to future generations is not inspiring,³⁴² could a legal obligation to sustain the planet for the unborn be recognized?

There are huge ramifications if the United States and other polluting nations were to be held legally responsible for the consequences of global warming.³⁴³ The United States is the world's largest emitter of greenhouse gases by far, but smaller nations will feel the most drastic global warming impacts.³⁴⁴ If some of the predictions of sea level rise are correct, entire island nations will be submerged during the twenty-first century.³⁴⁵ Some estimates predict catastrophe by 2030.³⁴⁶

with environmental groups and more. *Id.* The changes reflect the pure fact that sustainability is good for business *Id.* Also, these progressions may reflect a change away from the *growth-at-all-costs* imperative that drives environmental degradation. *Id.* at 137. Speth explains how "[s]o much in our society, economy, and polity is geared to rapid, continued economic growth. *Id.*

340. Carla Bass, *In Ecuador, First Phase of Trial Ends in Battle with ChevronTexaco*, PLATT'S OILGRAM NEWS, Nov. 6, 2003, at 1. Although the case was dismissed to be tried in Ecuador, a New York court has assured plaintiffs that an Ecuadorian judgment will be enforced in the United States. *Aguida v. Texaco*, 142 F. Supp. 2d 534 (S.D.N.Y. 2001).

341. SPETH, *supra* note 1, at 186-87. Environmental issues affect corporate America when, for example, "inaction on climate change" is assessed as a financial "risk." *Id.* See also *supra* notes 171-74 and accompanying text for a discussion of environmentally honest pricing. "[W]henver a scarce resource comes free of charge (as is typically the case with our limited stocks of clean air and water), it is virtually certain to be used to excess." *Id.* at 133. However, "[e]nvironmental economists make a powerful case for full-cost pricing and have identified a variety of economic instruments that are available to move in this direction." *Id.* at 162.

342. *Id.* at 192 (discussing "trusteeship of the earth's natural wealth and beauty for generations to come").

343. See *id.* at 69. "Another source of pressure for climate action is likely to come from the courts. Citizens, states, and other parties injured by climate disruption could seek redress in court." *Id.*

344. SPETH, *supra* note 1, at 192. The United States "emits the same amount of greenhouse gases as 2.6 billion people living in 151 developing nations. Yet the developing world is more vulnerable to change." *Id.* at 61. See also Nancy Shute & Charles W. Petit, *Preparing for a Warmer World*, U.S.NEWS & WORLD REPORT, July 6, 2004, at 14. "The United States is the single largest generator of greenhouse gases, contributing one quarter of the global total." *Id.*

345. Shute and Petit, *supra* note 344, at 11. "Rising sea levels could contaminate the aquifers that supply drinking water for Caribbean islands, while entire Pacific island nations could disappear under the sea." *Id.* As Tuiloma Neroni Slade, Samoa's U.N. representative and chairman of the

The damage award to an island nation—whose own greenhouse emissions are almost nonexistent—that has been completely annihilated by rising seas is unfathomable. And losses are far beyond financial—encompassing cultures, natural and anthropological wonders, and even human life. Although the United States has already ignored court decisions and refused to pay previous damage awards,³⁴⁷ laws are constantly changing. Perhaps even the possibility of paying for a destroyed country will encourage practices of sustainability, in order to avoid liability for harm. Advancing concepts of liability for environmental damages impacts corporations, nations, local governments and private actors. Though love of money has encouraged environmentally destructive patterns, fear of losing that money through liability may be the seminal force needed for real change.

B. Global Governance that Embraces a New Consciousness

As today's serious global health crisis indicates, current international environmental law is failing.³⁴⁸ Soft law is weak and the current plenitude of treaties has not solved the problems.³⁴⁹ Citing the inefficiency, repetition and disorganization that results from a multitude of separate agreements, Dr. Ramlogan has concluded that "treaty congestion and its difficulties may be avoided by the abandonment of the sectoral approach and the employment of an all-embracing approach."³⁵⁰ He joins Speth and others who call for the creation of a powerful unified international environmental organization.³⁵¹

Alliance of Small Island States, explains: "Climate change is the type of global issue not of our making, so it raises questions of equality and ethics." Barbara Crossette, *Rising Seas Plague Island States*, DENV. POST, Sept. 5, 1999, at A-3. See also Associated Press, *Tuvalu: Country Ready to Pack Up*, N.Y. TIMES, July 20, 2001, at F1. The eleven thousand residents of Tuvalu, a tiny South Pacific island nation (with its highest elevation only sixteen feet above sea level), have sought refuge in other countries, as they predict rising seas will make their country uninhabitable in fifty years. *Id.*

346. SPETH, *supra* note 1, at 62. "In a business-as-usual scenario, earth is scheduled to reach this [dangerous carbon dioxide] level by about 2030." *Id.* See also Michael D. Lemonick, *Life in the Greenhouse*, TIME, April, 2001, at 26. "With seas rising as much as 3 feet, enormous areas of densely populated land—coastal Florida, much of Louisiana, the Nile Delta, the Maldives, Bangladesh—would become uninhabitable." *Id.*

347. See Military & Paramilitary Activities, *supra* note 299, at 110-12.

348. SPETH, *supra* note 1, at 105. "[T]he international institutions created in the United Nations to address global environmental issues . . . are among the weakest multilateral organizations." *Id.* See also Palmer, *supra* note 32, at 262. The United Nations does have an Environmental Program (UNEP) but as Sir Palmer explains: "it is not an adequate international organization for protecting the world's environment." *Id.* at 261.

349. GURUSWAMY, *supra* note 12, at viii. "[A]s long as we do not have an effective and enforceable legal regime at the international level, we must rely on political commitment as the primary basis for cooperative action in negotiating and enforcing legal instruments." *Id.* Also, Speth notes: "International agreements are essential in confronting global environmental challenges, but rarely will they solve major problems by themselves, and even less rarely will they succeed if their requirements are not clear and meaningful." SPETH, *supra* note 1, at 100-01.

350. Ramlogan, *supra* note 140, at 116.

351. *Id.* SPETH, *supra* note 1, at 177. "Over the past decade, the leaders of France, Germany, and other countries have called for the creation of a World Environmental Organization [WEO]." *Id.* "Today's GEOPolity approach can also be redesigned for success by insisting on new procedures for

Although unconventional changes in international government may seem drastic, drastic measures are needed.³⁵² While globalization and loss of national sovereignty are legitimate concerns, the practical reality is that the World Trade Organization (WTO) exists and wields enormous power.³⁵³ To allow global economic activity to grow exponentially without creating a World Environmental Organization (WEO) with power—and budget—equal to the WTO is not only reckless global healthcare, it is bad business.³⁵⁴ Those opposed to environmental preservation are adamantly afraid of a WEO, indicating the potential scope and impact of its power.³⁵⁵

A WEO should embrace concepts from the new consciousness.³⁵⁶ One of the dangers of binary logic is creating adversarial pairs from differences that are not necessarily in opposition.³⁵⁷ Escaping the limits of dualistic thinking could facilitate new law-making techniques. Microtreaties on detailed particulars could be part of larger treaties.³⁵⁸ Hopefully, many urgent goals could be realized through a specialized

setting international requirements and on new institutions, including a World Environmental Organization." *Id.* at 176. See also Palmer, *supra* note 32, at 278-83 (discussing New Zealand's proposal to the United Nations which suggests implementation of an Environmental Protection Council).

352. As long as corporations are aided by the WTO, declining natural assets and biotic impoverishment may go unchecked: "[m]ost analysts now agree that, from an environmental perspective, sustainable development requires living off nature's income rather than consuming natural capital. In the terminology of the economists, it implies nondeclining natural assets, at a minimum." SPETH, *supra* note 1, at 141. Unfortunately, while "the transition to a globalized world is progressing rapidly, . . . the transition to a sustainable one is not." *Id.*

353. *Id.* at 99. "Thus far, governments have been willing to concede much in the area of sovereign autonomy to achieve economic expansion but not to protect the environment." *Id.* Speth also notes: "While efforts to promote economic globalization proceed apace through the WTO and elsewhere, policy-makers should pursue, with equal determination, reforms and institutions needed in the social and environmental areas." *Id.*

354. See *id.* at 147. "If the world wishes to evolve toward an international economy, and it certainly seems to, it will need to develop an international polity equal to the challenge of governing its newly global economy." *Id.* Speth posits, "[e]ventually, leaders in the political and business worlds will see that it is powerfully in their self-interest to promote the eight transitions." *Id.* at 198. Sustainable development should be the goal of any world trade. However, because financial gain and environmental protection do not fit easily together, we need a WEO. A WEO comparable to the WTO could facilitate global sustainability and protect the environment from degradation.

355. See *id.* at 141-47. A group of conservative think tanks wrote to President Bush to applaud his decision not to personally attend the Johannesburg convention on Sustainable Development in 2002. They also "strongly support . . . [President Bush's] opposition to signing new international environmental treaties or creating new international environmental organizations . . ." *Id.* at 112. The anti-environmentalists continue: "In our view, the worst possible outcome at Johannesburg would be taking any steps towards creating a World Environmental Organization, as the European Union has suggested . . ." *Id.* Reflecting their prejudice—and the inference that their opposition to a WEO is actually a strong endorsement—they continue: "The least important global environmental issue is potential global warming, and we hope that your negotiators at Johannesburg can keep it off the table . . ." *Id.* These and other efforts to forestall the creation of a WEO indicate the potential for such an organization to affect real change.

356. See *supra* Part IV.C for an explanation of this new consciousness.

357. See *supra* notes 260-69 and accompanying text for a discussion of dualism.

358. Whether broken down by issue, or by increments, or both; rethinking proposals on an individualized basis may facilitate real progress. These tiny issue-by-issue agreements, in shades of participation rather than all or nothing, may make consensus and action readily realizable. Nations wouldn't be forced to make a binary participation decisions—to either join or not join. Rather, they could decide at what level, from a continuum of contribution intensities, to participate.

and fragmented system, replacing the “baby with the bathwater” practice that blocks so many valuable initiatives in today’s scheme.³⁵⁹

Also, an ethic of care³⁶⁰ is best administered on a particularized and individualized level, so that context and relationships are considered in the law-making process. Though environmental problems are large, trying to broaden and generalize issues denies the uniqueness and diversity of real world situations. A large representative organization can confront the behemoth of environmental degradation, but on a small, practical, issue-by-issue basis that will really fix problems. The governing body would be unified, but the issues addressed would be particularized. Instead of simply spawning grandiose treaties that do not function in real life,³⁶¹ a new world environmental legislature could effectively and judiciously develop contextualized, personalized and workable solutions.

As Sir Palmer explains: “What is missing from the present institutional arrangements is the equivalent of a legislature: some structured and coherent mechanism for making the rules of international law.”³⁶² A world environmental legislature would be efficient, despite a full docket of small issues, because so much time and money that is currently wasted organizing and negotiating the negotiations—only a few meetings every decade thus far—would be saved.³⁶³ Also, definitive consensual decisions about particular issues would prevent the problematic litigation we have currently under our vague practice of international customs and norms.

A paradigm of inclusion³⁶⁴ would create a large, but more realistically representative, world congress. It could allocate votes to member nations based on population, economic contribution or equally (each nation has the same number of votes). Or perhaps all three, creating a triad of legislative bodies, akin to the two houses of the United States Congress.

Over-simplification and generalizing negates many experiences. An inclusive WEO, where a diversity of voices is heard, may affect greater change. States and interests within states are much more likely to con-

359. SPETH, *supra* note 1, at 104. Many nations, including the U.S., require that international agreements be ratified by domestic legislation. *Id.* In the United States, “[t]he Senate is a virtual graveyard full of unapproved environmental treaties.” *Id.* Escaping binary form and providing a wide range of possibilities would make agreement more realizable.

360. See *supra* notes 314–24 and accompanying text for a discussion of the ethic of care.

361. See Palmer, *supra* note 32, at 263. “While the number of instruments is impressive . . . during the time these instruments were being developed, the environmental situation in the world became worse and is deteriorating further. There is no effective legal framework to help halt the degradation . . . [M]any international agreements do not necessarily mean many ratifications.” *Id.*

362. *Id.* at 264.

363. *Id.* at 263. There is much time and effort put into the large conventions that currently constitute world environmental law-making. As Sir Palmer points out: “[t]he making and negotiation of the instruments themselves has to start anew each time Each negotiation proceeds differently.” *Id.*

364. See *supra* notes 207–13 and accompanying text for a discussion of inclusion.

form to legislation that they participated in creating than submit to regulation that is cast over them like a net.³⁶⁵

In addition to giving a large number of votes to various nations, the votes could be decided by various experts. Nations could design their electorate bodies using the jury model. As Sir Palmer explains: “[f]or such an institution to succeed, it must have access to high-quality streams of advice.”³⁶⁶ Experts from various scientific, economic, social and political arenas could come together like a jury to deliberate international environmental policies.³⁶⁷ If jury-like panels are appointed by elected officials, democracy on a more public level remains intact.³⁶⁸

The WEO should also adopt a progressive epistemology. Conservation measures could be given a presumption of validity, modeled after the presumption of innocence.³⁶⁹ Using a high burden of proof, experts must be convinced that ecologically protective measures are unfeasible, beyond a shadow of a doubt. This is similar, in science, to the precautionary principle advocated by Speth.³⁷⁰

The legislature will also have to run on some sort of majority rule principle.³⁷¹ A WEO should learn from the mistakes of the past and incorporate the best of innovations for its future.

365. See *supra* notes 270-85 and accompanying text for a discussion of alternatives to Western “command and control” enforcement attempts.

366. Palmer, *supra* note 32, at 264. Many powerful leadership positions are filled by experts in their field. The United States Secretary of Defense is a military, not political professional. Similarly, representatives need not all be experts in the field of government. An inclusive legislature with inclusive electorate panels would provide access to unlimited expertise in all important organisms of the human “ecosystem.” See *supra* notes 137-45 and accompanying text for a discussion of humanity’s ecosystem(s).

367. In an era when many powerful politicians are elected for accomplishments in celebrity (and not Nobel-winning sciences, legal training or public service), allowing scientific experts and highly educated professional access to power may be essential.

368. Today judges, committee members and agency authorities have huge amounts of power, which they acquire through appointment. Panel members could be elected by the public, but this risks all the evils (private interest, campaign monies, party affiliation, etc.) of typical electoral politics.

369. At a convention for the Center for Health, Environment and Justice, Peter Montague remarked, “[w]e need to put the burden of proof on potential polluters to prove that a substance or activity will do no harm, instead of communities having to prove otherwise.” Peter Montague, *Taking a Giant Step, EVERYONE’S BACKYARD*, Winter 1997, at 8.

370. SPETH, *supra* note 1, at 175-76 (“Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”).

371. Palmer, *supra* note 32, at 264.

One of the biggest obstacles that must be overcome in international negotiations is the rule of unanimous consent. This rule impels each negotiating body to search for the lowest common denominator; it adds to the difficulty of negotiations because sometimes a single nation can resist the development of a common position and demand concessions as the price of securing unanimous consent.

Id. See also Ramlogan, *supra* note 140, at 82. “Developments like majority vote, provisional implementation, and the use of central supervisory bodies, alter somewhat traditional international law jurisprudence which promote the view that states are only bound by the international norms to which they have consented.” *Id.*

CONCLUSION

As Einstein warned, “[t]he destiny of civilized humanity depends more than ever on the moral forces it is capable of generating.”³⁷² Speth quotes Charles Reich, who wrote of a “new consciousness [which] seeks restoration of the non-material elements of man’s existence, the elements like the natural environment and the spiritual that were passed by in the rush of material development.”³⁷³

Part of the emerging contemporary paradigm is the concept of humanity’s systems (politics, economics, etc.) as living entities, constantly growing and evolving. The term “environmental movement,” as opposed to “environmentalism,” a static noun, reflects this concept of motion and progress. Many of today’s progressive movements reflect the new consciousness of inclusion, respecting diversity and revering life.³⁷⁴

Speth’s transitions also embody this paradigm. They are not steps to be completed. Rather, they envision ethical kinetics—actively moving transitions toward a sustainable future.³⁷⁵ As humanity advances through the twenty-first century, we must move toward harmonious habitation with and through the world’s living systems.³⁷⁶ The future of life as we know it may well depend on these transitions.

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372. EINSTEIN, *supra* note 17, at 94. *See also* FALK, *supra* note 31, at 91-92. Many writers during the Atomic Age and under the threat of nuclear holocaust were addressing global destruction through war. However, their thoughts about human behavior with annihilating consequences mirror concerns about global environmental destruction. And their aspirations for human restraint and action to prevent world-wide catastrophe are apt and fitting hopes for the current global crisis of environmental health.

373. SPETH, *supra* note 1, at 193. Speth continues with the hope that scholars “have given our species enough time to grow up. It is doubtful that the planet can take much more of our heedless childhood.” *Id.*

374. For an example of such a progressive movement, *see* Clark, *supra* note 263, at 5-11. Social Ecology rests on the principle that “[t]he common planetary good can therefore be conceptualized only in a non-reductionist, holistic manner.” *Id.*

375. SPETH, *supra* note 1, at 151. If we can move through the transitions, “our legacy from these early decades of the new century will be a world sustained, not a world of wounds.” *Id.*

376. Speth espouses environmental preservation: “It is a sacred trust—our duty to our children, our neighbor’s children, and their children—and it is a trust at which we are failing.” *Id.* at 139.

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