
**REGENERATING THE HUMAN RIGHT
TO A CLEAN AND HEALTHY ENVIRONMENT
IN THE COMMONS RENAISSANCE**

BURNS H. WESTON
THE UNIVERSITY OF IOWA COLLEGE OF LAW
AND
CENTER FOR HUMAN RIGHTS

DAVID BOLLIER
COMMONS STRATEGY GROUP

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All comments welcomed.

burns-weston@uiowa.edu

david@bollier.org

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Appendix (CLP Draft UNGA Declaration)

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PART I

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Regenerating the Human Right to a Clean and Healthy Environment in the Commons Renaissance

Burns H. Weston*

David A. Bollier**

It is our position that there exists today a human right to a clean and healthy environment,¹ that it is limited in reach but nonetheless part of our legal as well as moral inheritance, and that, at this moment in ecological history especially, it needs to be taken extra seriously. It also is our position that, for this to happen—indeed, for Earth itself to survive hospitably to life upon it—this right must be reimagined and reinvigorated, and as soon as possible. Many times since its inception, but particularly since the globalization of the Industrial Revolution over the past thirty years, the right has been suppressed and compromised, in some instances eclipsed, by powerful economic and political interests that, at home and abroad, have stolen our ecological citizenship. This has occurred, if not by the barrel of the gun, then by a rule of law that has favored “the private [and public] plunder of our common wealth”²—the special over the common interest—and to the detriment of us all, once in a gradual way, now with cataclysmic instantaneity. Think, for example,

* Bessie Dutton Murray Distinguished Professor of Law Emeritus and Senior Scholar, Center for Human Rights, The University of Iowa. With this essay, I salute Michael Reisman of the Yale Law School, my long-time, admired colleague and friend—hopefully to make amends for an intent and circumstance that did not rhyme in time to contribute to the much-deserved *festschrift* honoring him last year: *Looking to the Future: Essays on International Law in Honor of W. Michael Reisman* (Mahnoush H. Arsanjani, et al. eds., 2010). Anyone familiar with Professor Reisman’s brilliant *Law in Brief Encounters* (1999) will understand why I do so here in particular. Additionally, I wish to thank Samuel M. DeGree, my insightful, creative, and gracious research associate to whom I owe much; also Scott O. McKenzie, Suzan M. Pritchett, and Wan-chun Dora Wang, my former research assistants for their always imaginative help at the outset. I am profoundly grateful to all, as I am also to Anne MacKinnon for her early, customarily acute insights; the Harold K. Hochschild Foundation and the Arsenault Family Foundation for their indispensable general support; and to University of Iowa College of Law Dean Gail Agrawal for her financial support of much needed research assistance in the early stages.

** Independent commons scholar and activist, Co-founder of the Commons Strategy Group, Blogger at Bollier.org, and Senior Fellow at the Norman Lear Center, USC Annenberg School for Communication & Journalism. I too would like to thank Samuel M. DeGree for his painstaking and cheerful research support throughout this project; also Anne MacKinnon for her early creative advice. Silke Helfrich and Michel Bauwens have been wonderful friends and colleagues in my study of the commons over the past several years; their ideas and insights are reflected in the pages that follow. I am most grateful as well for the financial support of this project by the Harold K. Hochschild Foundation and the Arsenault Family Foundation.

¹ We use the phrase “clean and healthy environment” to encapsulate the numerous adjectives that, either alone or in various combination, are used to identify or define this right, e.g., “adequate,” “decent,” “ecologically balanced,” “resilient,” “sustainable,” and “viable” in addition to “clean” and “healthy.” In no way, however, should our abbreviated conveniences be interpreted to diminish the right of everyone to an environment that is adequate, decent, ecologically balanced, resilient, sustainable, and viable as well as clean and healthy. Nor should our use of the yet more abbreviated phrases “human right to environment” and “right to environment” be so construed, adopted as they are solely to unburden syntax where needed.

² DAVID BOLLIER, *SILENT THEFT—THE PRIVATE PLUNDER OF OUR COMMON WEALTH* (2003).

BP's 2010 Deepwater Horizon oil hemorrhage in the Gulf of Mexico.³ To ignore the right to environment, however, or to be deterred by its difficulties or to acquiesce helplessly to its detractors, is to invite extinction. The right to a clean and healthy environment is a critical pathway to a planetary future fit for all living things.

But we get ahead of ourselves. Let us begin at the beginning.

I. Introduction

At least since Rachel Carson's *Silent Spring*,⁴ we have known about humankind's squandering of nonrenewable resources, its wanton killing of precious life species, and its overall contamination and degradation of delicate ecosystems.⁵ In the last decade or so, these defilements, increasingly multidimensional and ubiquitous, have assumed a systemic dimension. Faced with mounting capital surpluses not easily reinvested in ordinary production streams, corporate and other business enterprises, typically with the blessings if not the active partnership of the States with which they are allied, have been making, in anthropologist Donald Nonini's words, "massive incursions . . . across a broad front of heterogeneous areas of material life . . . to 'free up' resources heretofore not accessible for commercialization in order to profitably invest excess capital combined with them in new streams of production"⁶—what David Bollier has aptly called "silent theft" or "the private plunder of our common wealth."⁷

The consequences visited upon our natural environment by this "silent theft," compounded by those visited upon our economic, social, and cultural resources, have been ruinous. Briefly put, the State and Market, in pursuit of commercial development and profit, have failed to internalize the

³ The Deepwater Horizon oil "spill," as it is usually—and revealingly—characterized, is of course but one of a seemingly endless list of ecological delinquencies. Appropriately, it was widely publicized and condemned, though not enough to prevent planning of further Gulf of Mexico drilling less than one year after the disaster. Many, however, escape widespread public notice, let alone responsible scrutiny, as commonly they take place at the hands of artful corporate giants in faraway developing countries, their victims either ignored or treated cavalierly, even with contempt. For noteworthy exception, see Bob Herbert, Op-Ed., *Disaster in the Amazon*, N.Y. TIMES, June 5, 2010, at A21, recounting "what has been described as the largest oil-related environmental catastrophe ever"—Texaco's operation from the early 1960s to 1992 of some 300 oil wells in Ecuador's Amazonian rainforest, fouling rivers and streams with polluting byproduct, contaminating the soils and ground water with toxic waste, poisoning the air and creating "black rain" via the burning of gas and waste oil into the atmosphere, and in the process destroying the lives and culture of the indigenous inhabitants, "upended in ways that have led to widespread misery." See also *infra* note 136 in Section II, briefly describing the adjudicated response to this "catastrophe" by the Inter-American Commission on Human Rights.

⁴ RACHEL CARSON, *SILENT SPRING* (1962). Note also the publication in the same year of Paul Brooks & Joseph Foote, *The Disturbing Story of Project Chariot*, HARPER'S, Apr. 19, 1962, at 60, exposing and ultimately hastening the demise of theoretical physicist Edward Teller's geoengineering plans to detonate nuclear devices with 160 times the explosive power dropped on Hiroshima to create a deep water harbor on Cape Thompson on Alaska's Chukchi Sea coast 30 miles southeast of the Inupiat Eskimo village of Point Hope. "Our ability to alter the earth we live on is . . . appalling," the authors wrote.

⁵ In the United States at least, we in fact have known about the ecological damage that humans have wrought on our planet ever since George Perkins Marsh's *Man and Nature*, originally published in 1864, later republished in 1965 by The Belknap Press of Harvard University Press and again in 2003 by the University of Washington Press. Marsh, born in Woodstock, Vermont, and whose work against clearcut foresting played a role in the creation of the Adirondack Park, is considered by many to have been America's first environmentalist.

⁶ David M. Nonini, *Introduction*, in *THE GLOBAL IDEA OF THE COMMONS* 1, 13 (David M. Nonini, ed. 2007).

⁷ See BOLLIER, *supra* note 2.

environmental and social costs of their pursuits, and, in so failing, have neglected to take measures to preserve or reproduce the very preconditions of capitalist production. The result (among others): pollution and waste (acid rain, hydrocarbon emissions, poisoned waterways, toxic waste dumps); short-term overuse and destruction of natural resources (forests, waterways, fisheries) and the material infrastructures (roads, bridges, harbors) needed for their exploitation; and consequently devalued urban and other human settlements (“brownfields,” suburban sprawl), which especially affect the poor and racial and other minorities. The policies and practices responsible for this state of affairs are of course unsustainable.

But the grim story does not end here. Lately we have come to realize the shocking extent to which our atmospheric emission of carbon dioxide and other greenhouse gases—and consequent global warming and climate change—now exacerbate these practices, imperil attendant human rights on a massive scale, and otherwise threaten Planet Earth to a degree unprecedented since the dinosaurs.⁸

The details are well documented, thanks to the U.N.’s Intergovernmental Panel on Climate Change (IPCC) and other authoritative sources.⁹ In just the next decade or two, with threats of irreversible ecological harm mounting daily via the loss of land, forests, freshwater systems, and biodiversity, but especially via the warming of Earth’s average surface temperature (currently about 15°C, 59°F), we face, at a minimum, an all but certain 2 degrees Celsius (3.6° F) increase in Earth’s average surface temperature, projected to cause significant sea level rises (Greenland tips into irreversible melt when global temperatures rise above only 1.2° Celsius). The warmer atmosphere will provoke, too, a greater incidence of extreme weather; intensified flooding and soil erosion; expanded heat waves, droughts, and fires; the disappearance of life-sustaining glacial flows to major cities; aggravated desertification and crop failures (including Amazonian rain forest depletion and wheat crop losses in northern latitudes); famine in more than half the 54 countries of Africa;

⁸ Bill McKibben, early to sound the alarm about global warming, titled his recent book *EAARTH: MAKING A LIFE ON A TOUGH NEW PLANET* (2010) to signify that already we have created a planet fundamentally different from the one into which most readers of this essay were born. *See also* JAMES LOVELOCK, *THE REVENGE OF GAIA: WHY THE EARTH IS FIGHTING BACK—AND HOW WE CAN STILL SAVE HUMANITY* (2006).

⁹ Most of what follows is based on the findings of the IPCC. Though recently subject to political attack from those would deny or diminish its core findings, it is widely and justifiably considered to be the primary source of scientifically-based information on climate change. Established in 1988 by the World Meteorological Organization (WMO), a specialized agency of the United Nations, and the United Nations Environment Programme (UNEP) to address the trends and risks of climate change, its assessment reports are based on peer reviewed, published scientific findings. Its Fourth Assessment Report, published in 2007, was derived from more than 2,500 scientific experts, 800 contributing authors, and 450 lead authors from over 130 countries. Co-winner (with former U.S. Vice President Al Gore) of the Nobel Peace Prize in 2007, currently the IPCC is working on its Fifth Assessment Report, to be finalized in 2014. Its website (<http://www.ipcc.ch>) provides abundant further information.

Other authoritative sources upon which we have relied include the U.S. Global Change Research Program which, begun in 1989 and as stated on its website (<http://www.globalchange.gov>), “coordinates and integrates federal research on changes in the global environment and their implications for society”; and the Millennium Ecosystem Assessment, called for by former U.N. Secretary-General Kofi Annan in 2000, initiated in 2001, and involving, as announced on its website (<http://www.maweb.org/en/Index.aspx>), “the work of more than 1,360 experts worldwide . . . [in] state-of-the-art scientific appraisal of the condition and trends in the world’s ecosystems and the services they provide . . .” *See also* JAMES HANSEN, *STORMS OF MY GRANDCHILDREN: THE TRUTH ABOUT THE COMING CLIMATE CATASTROPHE* (2009); LOVELOCK, *supra* note 8; MARK LYNAS, *SIX DEGREES: OUR FUTURE ON A HOTTER PLANET* (2008); SIR NICHOLAS STERN, *THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW* (2007) [hereinafter “STERN REVIEW”];

swelling refugees in search of food and water (increasingly in the face of armed resistance); wider spreading of water- and vector-borne diseases; the likely extinction of one-third of all species.

More graphically, Africa is threatened to lose up to 247 million acres of cropland by 2050, equal to the size of all U.S. commodity cropland. The loss of glaciers in the Tibetan Plateau will jeopardize the water supply of 1.5 billion Asians. Entire island nations will confront extinction, their sovereignty swallowed by rising seas—imagine 75 million Pacific islanders swept from their homes into refugee status! Precious indigenous cultures—the Arctic Inuit and Amazonian Kamayurá, for example—will likely wither away, tragically, for lack of food caused by overheated and receding habitats. Desperate people in search of food, water, and safe shelter—e.g., the “environmental refugees” that already are fleeing Kenya’s increasingly drought-stricken Rift Valley—will number as many as 250 million by mid-century, dwarfing the number of “political refugees” that traditionally has strained the world’s caring capacities.

Renowned NASA climatologist James Hansen, among the very first to sound the climate change alarm three decades ago, puts it bluntly: “The crystallizing scientific story reveals an imminent planetary emergency. We are at a planetary tipping point [that is] incompatible with the planet on which civilization developed . . . and to which life is adapted.”¹⁰ Prize-winning British scientist James Lovelock, once a global warming skeptic, puts it this way: “Our future is like that of the passengers on a small pleasure boat sailing quietly above the Niagara Falls, not knowing that the engines are about to fail.”¹¹ In his book *How to Cool the Planet*, Jeff Goodell elaborates:

In Lovelock’s view, it doesn’t matter how many rooftop solar panels we install or how tight we make the cap on greenhouse gas emissions—it’s too late to stop the climate changes that are already under way. And those changes will be far more dramatic than people now suspect. By the end of the century, Lovelock believes, temperate zones such as North America and Europe could heat up by 17 degrees Fahrenheit, nearly double the high-end predictions of most climate scientists. Lovelock believes that this sudden heat and drought will set loose the Four Horseman of the Apocalypse: war, famine, pestilence, and death. By 2100, he told me, the earth’s population could be culled from today’s seven billion to less than one billion, with most of the survivors living in the far latitudes—Canada, Iceland, Norway, and the Arctic basin.¹²

If Hansen and Lovelock are even only half right, the ecological (and social) future bodes ill almost everywhere.

¹⁰ This quotation is a composite of several distinctive but almost identical statements from Hansen’s reports, lectures, and testimonies repeatedly cited on numerous reliable websites. See, e.g., Jim Hansen, *State of the Wild: Perspective of Climatologist*, Apr. 10, 2007, <http://www.davidkabraham.com/Gaia/Hansen%20State%20of%20the%20Wild.pdf> (accessed June 25, 2011); Bill McKibben, *The Carbon Addicts on Capitol Hill*, THE WASHINGTON POST, Mar. 1, 2009, <http://www.washingtonpost.com/wp-dyncontent/article/2009/02/28/AR2009022801667.html> (accessed June 25, 2011) (quoting Hansen); James Hansen et al., *Target Atmospheric CO₂: Where Should Humanity Aim?*, <http://www.columbia.edu/~jeh1/2008/TargetCO220080407.pdf> (accessed June 25, 2011).

¹¹ LOVELOCK, *supra* note 8, at 6.

¹² JEFF GOODELL, *HOW TO COOL THE PLANET—GEOENGINEERING AND THE AUDACIOUS QUEST TO FIX EARTH’S CLIMATE* 89-90 (2010).

How should we respond to these brute facts and projections? Since the early 1970s and especially since the landmark 1972 Stockholm Conference on the Human Environment, literally scores of multilateral treaties designed to protect the environment have been adopted,¹³ including at least forty that deal specifically with resources affected by climate change.¹⁴ Still, naysayers notwithstanding, the environment is everywhere under siege, and the worst polluters—China and the United States leading the pack—remain unable to reach agreement on the curbing of greenhouse gas emissions. In climate change policy circles today, the call to action is no longer the language of “prevention”; it is of “mitigation” and, increasingly, “adaptation”¹⁵—and with little or no regard for those who will be most seriously affected. The Inuits and the sea islanders cry out in vain.

Yet even in this alarming setting we have options—economic, scientific, technological, cultural, legal, etc.¹⁶ It of course is important that we explore and evaluate each of them, and as soon as possible if we are to guarantee against oblivion. None, however, are likely to succeed over the long run if they are, fundamentally, business-as-usual. Warns Øystein Dahle, Chairman of the Board of the World Watch Institute and former Vice President of Exxon Norway:

A great change in our stewardship of the Earth and the life on it is required if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated. * * * The challenge will . . . require a complete redesign of the working relationship between the political system and the corporate sector.¹⁷

James Gustave Speth, former Dean of the Yale School of Forestry and Environmental Studies, now at Vermont Law School, asserts:

The main body of environmental action is carried out within the system as currently designed, but working within the system puts off-limits major efforts to correct many underlying drivers of deterioration, including most of the avenues of change . . . Working only within the system will, in the end, not succeed when what is needed is transformative

¹³ Judging from a 1998 UNESCO publication, there exist today well over 300 multilateral treaties and 900 bilateral treaties dealing with the biosphere alone. See Antonio Augusto Cançado Trindade, *Human Rights and the Environment*, in HUMAN RIGHTS: NEW DIMENSIONS AND CHALLENGES 118 (UNESCO: Janusz Symonides ed., 1998). For many of the multilateral treaties, global and regional, see INTERNATIONAL LAW AND WORLD ORDER: BASIC DOCUMENTS, Titles I-V, especially Title V (“Earth-Space Environment”) (Burns H. Weston & Jonathan C. Carlson eds., 1994–) (hereinafter “BASIC DOCUMENTS” for all five titles).

¹⁴ See, e.g., List of International Environmental Agreements, WIKIPEDIA.ORG http://en.wikipedia.org/wiki/List_of_international_environmental_agreements#Alphabetical_order (accessed June 25, 2011).

¹⁵ See, e.g., MCKIBBEN, *supra* note 8.

¹⁶ See, e.g., LESTER R. BROWN, PLAN B 3.0: MOBILIZING TO SAVE CIVILIZATION (2008); CHARLES DERBER, GREED TO GREEN: SOLVING CLIMATE CHANGE AND REMAKING THE ECONOMY (2010); GOODELL, *supra* note 12; AL GORE, OUR CHOICE: A PLAN TO SOLVE THE CLIMATE CRISIS (2009); BERT METZ, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, WORKING GROUP III, CLIMATE CHANGE 2001: MITIGATION (2001); AUDEN SHENDLER, GETTING GREEN DONE: HARD TRUTHS FROM THE FRONT LINES OF THE SUSTAINABILITY REVOLUTION, ch. 7 (2010).

¹⁷ Øystein Dahle, Board Chairman, Worldwatch Institute, *From Cowboy Economy to Spaceship Economy*, Remarks at AGS Annual Meeting 2004, Chalmers University of Technology, Göteborg, Sweden (Mar. 2004), in ALLIANCE FOR GLOBAL SUSTAINABILITY, PROCEEDINGS: RESEARCH PARTNERSHIPS TOWARDS SUSTAINABILITY 15 (Richard St. Clair, ed., 2004), available also at <http://www.globalsustainability.org/data/AGSAM2004Proceedings.pdf> (accessed June 25, 2011).

change in the system itself. * * * [Needed is] a revitalization of politics through direct citizen participation in governance, through decentralization of decision making, and through a powerful sense of global citizenship, interdependence, and shared responsibility.¹⁸

And David Orr, the Paul Sears Distinguished Professor of Environmental Studies and Politics at Oberlin College, observes:

Like the [US] founding generation, we need a substantial rethinking and reordering of systems of governance that increase public engagement and create the capacities for foresight to avoid future crises and rapid response . . . In the duress ahead, accountability, coordination, fairness, and transparency will be more important than ever.¹⁹

These and many other astute observers are coming to a shared conclusion: the flawed premises of laissez-faire economics (classical and neoliberal) and its attendant legal and political warrants which prioritize territorial sovereignty over shared stewardship of the natural environment, impede our search for systemic, durable change.²⁰ At the same time, however, this moment in history presents an unusual opening in our legal and political culture for introducing new ideas for effective and just environmental protection—locally, nationally, regionally, globally, and points in between.

From a legal perspective, we believe that effective and just environmental protection is best secured via the rigorous application of the human right to environment reconceptualized both to facilitate and, together with other essential rights, to function within a new paradigm of ecological governance that actually could promote environmental well-being while meeting everyone's basic needs. The paradigm we have in mind is *commons- and rights-based ecological governance*, operational from local to global and administered according to principles rooted in respect for nature and fellow human beings.²¹

¹⁸ JAMES GUSTAVE SPETH, *THE BRIDGE AT THE EDGE OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY* 86, 225 (2008).

¹⁹ DAVID ORR, *DOWN TO THE WIRE: CONFRONTING CLIMATE COLLAPSE* 40 (2009).

²⁰ See, e.g., GAR ALPEROVITZ, *AMERICA BEYOND CAPITALISM: RECLAIMING OUR WEALTH, OUR LIBERTY, AND OUR DEMOCRACY* (2005); PETER BARNES, *CAPITALISM 3.0: A GUIDE TO RECLAIMING THE COMMONS* (2006); BROWN, *supra* note 16; CORMAC CULLINAN, *WILD LAW: A MANIFESTO FOR EARTH JUSTICE* (2d ed. 2011); JARED DIAMOND, *COLLAPSE: HOW SOCIETIES CHOOSE TO FAIL OR SUCCEED* (2005); GORE, *supra* note 16; WILLIAM GREIDER, *THE SOUL OF CAPITALISM: OPENING PATHS TO A MORAL ECONOMY* (2003); HANSEN (2009), *supra* note 9; MICHAEL HARDT & ANTONIO NEGRI, *COMMONWEALTH* (2009); ELIZABETH KOLBERT, *FIELD NOTES FROM A CATASTROPHE: MAN, NATURE, AND CLIMATE CHANGE* (2006); DAVID C. KORTEN, *THE GREAT TURNING: FROM EMPIRE TO EARTH COMMUNITY* (2006); BILL MCKIBBEN, *DEEP ECONOMY: THE WEALTH OF COMMUNITIES AND THE DURABLE FUTURE* (2007); ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990).

²¹ By “commons” (as in “commons-based”) we mean, in a broad sense, a kind of social and moral economy or governance system of a participatory community of “commoners” (sometimes the general public or civil society, sometimes a distinct group) that uses and directly or indirectly stewards designated natural resources or societal creations in trust for future generations. For definitional details, see *infra* Section IV-A (“What is the Commons?”).

The term “commons,” we concede, can be confusing because it may not be immediately clear if the term is being used in a singular or plural sense—or as a “collective noun” which typically takes a singular verb tense. Thus, just as we speak of “the market” as a general entity taking a singular verb tense—as in “The market is up today”—so “the commons” can be construed as a general entity and take a singular verb tense, as in “The commons is a form of resource

This is a daunting proposition. It entails a reconsideration of some basic premises of our legal order, and of our economic, political, and cultural orders as well—made all the more difficult by the present global economic crisis and associated developments in countries like the United States where opposition to almost any environmental regulation is on the rise. Yet we believe this vital task—the regeneration of the right to environment in a commons- and rights-based ecological governance context—is entirely feasible if we liberate ourselves from the continuing tyranny of State-centric models of legal process; if we enlarge our understanding of “value” in economic thought to take account of natural capital and social well-being; if we expand our sense of human rights and how they can serve strategic as well as moral purposes; and if we honor the power of non-market participation, local context, and social diversity in structuring economic activity and addressing environmental problems.

The deeper issue may be, of course, whether contemporary civilization can be persuaded to disrupt the status quo to save our “lonely planet.” At the moment, any transformation is essentially blocked because any “serious” agenda for change must genuflect before some sacrosanct dogmas: that law is exclusively a function of the State; that markets and corporations are the primary engines of value-creation and human progress; that government involvement generally impedes innovation and efficiency; that the private accumulation of capital must not be constrained; and that “ordinary people” have few constructive roles to play in the political economy except as consumers and voters. These structural premises limit the scope of what is perceived as possible.

As it happens, however, insurgent schools of thought in economics and human rights are expanding our sense of the possible. At the same time a worldwide commons movement is arising in diverse arenas to assert new definitions of “value” that challenge the contemporary neoliberal economic and political order; to expand the idea of human rights to embrace communitarian as well as individualistic values; and to self-organize non-market, non-governmental systems for managing agricultural seeds, groundwater, urban spaces, creative works, and a wide variety of natural ecosystem resources. In addition, diverse Internet communities and fledgling grassroots movements are demonstrating new modes of commons-based governance. Taken together, these trends suggest the broad outlines of a way forward—a way to bring ecological sustainability, economic well-being, and stable social governance into a new and highly constructive alignment. If one attends to many robust trends now on the periphery of the mainstream political economy, one can begin to imagine a coherent and compelling new paradigm that compensates for the many serious deficiencies of centralized governments (corruption, lack of transparency, rigidity, a marginalized citizenry) and concentrated markets (externalized costs, fraud, the bigger-better-faster ethos of material progress).

management.” Confusion often results because “commons” ends with an “s,” which suggests that it is a plural noun. However, we prefer to avoid such dubious locutions as “commonses.”

Beyond its collective-noun usage, it is customary to use the term “commons” to refer to discrete, particular regimes for managing common-pool resources, which should therefore take a singular verb tense, as in “That forest commons in Nepal is doing a fine job of conservation.” Finally, the term “commons” often is used to speak about multiple, discrete commons, a usage that should properly use a plural verb tense, as in “The hundreds of digital commons on the Internet represent a new mode of production.” Usage rules are muddled by the habit of a minority of scholars to use the term “common” (without the “s”) to denote both singular and collective-noun forms of “commons.” However, because this is a minority usage, we demur and have adopted the standard usage of “commons,” as explained above.

All of these trends are not only congruent; they also are convergent, together serving as complementary building blocks for a new paradigm of principled and effective ecological governance that is both consistent with, and supported by, a right to environment that venerates all life on earth now and in the future. As such, they speak to the likes of Dahle, Speth, Orr, and others who call for a fundamental rethinking and reordering of the ways in which we go about the world's environmental and related business (including, we hasten to add, even the business of war and peace which climate change is likely to provoke as various nations and peoples compete for dwindling supplies of water, forests, fish, and other natural resources). Indeed, given that "[b]usiness-as-usual now appears as an irreversible experiment with the only atmosphere humans have,"²² it is impossible to think that responses to our "planetary emergency" can be successful without innovative, transformative action—legal, political, economic, and otherwise. New forms of commons- and rights-based ecological governance reflect a new worldview of thinking and doing, rooted deeply in human history and propelled, in this era of increasing environmental threats, by "the fierce urgency of now."

We begin our consideration of this new cosmology by assessing the right to environment as presently understood (Section II) and by reviewing the trends that are converging to support a new paradigm for worldwide ecological governance that both facilitates and embraces the right to environment (Section III). In the remainder of this essay, we explicate the Commons as a model for ecological governance (Section IV), imagine an architecture of law and policy that could support its successful operation (Section V), and speculate on the way forward "from here to there"—a pathway by which interested parties might actualize the new policy frameworks needed to help secure the right to environment (Section VI).

We of course are mindful that fundamental social change is typically slow when not marked by violence. We therefore do not denigrate ongoing efforts to advance the right to environment within the existing, traditional system.

Nor do we reject the search for other options, such as potentially complementary advances in science and technology relative to climate change. Given the so far alarmingly laggard response to warnings of global ecological collapse by this century's end, whether born of ignorance or doubt or denial or all three, some form of geoengineering—e.g., "stratosphere doping" (injecting large quantities of nonreactive metal or sulfate nanoparticles into the atmosphere and stratosphere)—*may* prove necessary for at least temporary risk reduction in the relatively near future. Which is not to suggest that it is wise to rely upon geoengineering as a first defense against climate change. In addition to the profound ethical questions involved, the law of unintended consequences says it is not, particularly when tampering with ecosystems we do not fully understand. It also lures away from the essential task of reducing our greenhouse gas emissions by tempting us with technological fixes that are potentially elusive, even dangerous. There are, however, growing numbers of ethicists, scientists, and others who argue thoughtfully that we must begin to research geoengineering now so

²² BURNS H. WESTON & TRACY BACH, RECALIBRATING THE LAW OF HUMANS WITH THE LAWS OF NATURE: CLIMATE CHANGE, HUMAN RIGHTS, AND INTERGENERATIONAL JUSTICE 60 (Climate Legacy Initiative, Vermont Law School and The University of Iowa, 2009), *available at* http://www.vermontlaw.edu/Academics/Environmental_Law_Center/Institutes_and_Initiatives/Climate_Legacy_Initiative/Publications.htm (accessed Aug. 3, 2011).

that it is available as a tool to protect the planet if and when global warming and climate change trends begin to reach irreversibly critical tipping points.²³

We believe, on the other hand, that much of geoengineering engages the same kind of Industrial Age thinking that brought us global warming in the first place, that climate change poses challenges that go far beyond the cutting of greenhouse gas emissions, and that even these challenges do not define the entirety of the worldwide environmental *problématique* that begs for solution. To pursue geoengineering as a "solution" represents a dangerous, myopic fantasy, especially when a practical, compelling alternative is at hand. In our view, commons-and rights-based ecological governance, free of the limitations mentioned and drawing upon a rich history of commons efficacy, versatility, and social appeal in many specific domains—water, land, fisheries, and forests, not to mention a variety of digital realms—offers the best promise for an environment fit for human beings and all other living things. It constitutes a “new/old” class of socio-ecological collaboration that, in the course of providing for human needs, can regenerate the human right to a clean and healthy environment and, more broadly, the fundamental, organic interconnections between humankind and Earth.

To be sure, much of the success of commons, ecological and otherwise, has stemmed from their character historically as decentralized, participatory, self-organized systems. It is fair, therefore, to wonder if commons can be the basis for a larger, macro-solution without some new law and policy architecture that can recognize and support the skillful nesting of different types of authority and control at different levels of governance (“subsidiarity”). At the same time, one might plausibly turn the question around: Can any macro-solutions succeed without some genuine engagement with decentralized, participatory, self-organized systems?

Not to be overlooked, either, are the difficulties of recognizing indivisible collective interests in democratic polities that revolve around individual rights and entitlements. There is also the arguably larger challenge of devising new multilateral governance structures acceptable to the world's states while still empowering commoners and leveraging their innovations and energy as stewards of specific ecosystem resources. These and related issues we consider in the pages following, especially in Sections IV and V, *infra*.

We thus are embarked on a large intellectual task, one we cannot hope to fulfill in one even lengthy essay; and it is for this reason that, in the past year, we launched an independent research

²³ See, e.g., Dale Jamieson, *Ethics and Intentional Climate Change*, 33 CLIMATE CHANGE 323 (1996), also available at <http://www.springerlink.com/content/w673766t3316r474> (accessed June 25, 2011) and its adaptation in *The Ethics of Geoengineering*, in 1 PEOPLE AND PLACE No. 3 (2009), http://www.peopleandplace.net/perspectives/2009/5/13/the_ethics_of_geoengineering (accessed June 25, 2011); see also GOODELL, *supra* note 12 and David G. Victor, et al., *The Geoengineering Option: A Last Resort against Global Warming?*, 88 FOR. AFF. 64 (Mar/Apr 2009). But see ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD), CLIMATE MITIGATION: WHAT DO WE DO? (2008); Sir Nicholas Stern, *Executive Summary*, STERN REVIEW, *supra* note 9, at x-xxi; ELI KINTISCH, HACK THE PLANET: SCIENCE'S BEST HOPE—OR WORST NIGHTMARE—FOR AVERTING CLIMATE CATASTROPHE (2010); Stephen Pacala & Robert H. Socolow, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies*, 305 SCIENCE 968 (2001); and the readings in Problem 7-2 of JONATHAN C. CARLSON, SIR GEOFFREY W.R. PALMER, & BURNS H. WESTON, INTERNATIONAL ENVIRONMENTAL LAW AND WORLD ORDER: A PROBLEM-ORIENTED COURSEBOOK (3d ed., forthcoming from Thomson-West in Autumn 2011).

initiative we call the Commons Law Project.²⁴ The ensuing pages, beginning with our assessment of the right to environment at this point in time, should be understood, therefore, as but an introduction to the Project. We take on even this limited probe, however, with a humility born not only of the enormity of the intellectual challenge but, more importantly, of the truth that neither of us can possibly boast the ecological expertise that others before us can rightfully claim. At the same time, our limitations aside, it is abundantly clear that humanity's existence and well-being depend upon a clean and healthy environment; therefore also that the protection of Mother Nature, via the power of rights especially, must be made to rank as a preminent societal priority, equal to our aspirations to eradicate disease, poverty, war, and other severe forms of human abuse and suffering. Fortunately, such commitments can already be seen in the *Pachamama* (Goddess Earth) Movement now spreading in South America and beyond.²⁵

²⁴ The Commons Law Project (CLP) is an outgrowth of the Climate Legacy Initiative (CLI), a now concluded collaboration of the Environmental Law Center of Vermont Law and the UI Center for Human Rights of The University of Iowa. In its concluding policy paper, the CLI recommended the development of “a law of the ecological commons.” See Recommendation 1 (“Define and Develop a Law of the Ecological Commons for Present and Future Generations,” coauthored by Carolyn Raffensperger, Burns H. Weston, and David Bollier) in WESTON & BACH, *supra* note 22, at 63.

²⁵ See, e.g., Jeanne Roberts, *South America Leading the Push toward Sustainability*, <http://blog.cleantechies.com/2010/05/05/latin-america-pushes-sustainability> (accessed June 25, 2011). For further discussion and detail, including pertinent legal citations, see *infra* text accompanying notes 127-66; see also CULLINAN, *supra* note 20, at 178-91 (recounting the emergence of such “wild law” thinking and strategizing in Africa, India, the United Kingdom and Australia, the United States, and within the U.N. system, as well as in Latin America).

II. The Status of the Human Right to a Clean and Healthy Environment

The human right to a clean and healthy environment can be a powerful legal tool for winning as well as informing a system of ecological governance in the common interest. But there are skeptics who say that the right does not exist except in moral terms, that it lacks the elements of authority and/or control requisite to making it count as law. Are they right? The answer is both “yes” and “no”—similar to Professor Rodriguez-Rivera’s answer in the title (and text) of his helpful 2001 essay: *Is the Human Right to Environment Recognized under International Law? It Depends on the Source*.²⁶

In the last several decades, most recently due to heightened awareness of climate change and its consequences, environmental and human rights scholars (Professor Rodriguez-Rivera included) have explored this question with acuity and at length.²⁷ So as not to interrupt unduly the principal

²⁶ Luis E. Rodriguez-Rivera, *Is the Human Right to Environment Recognized Under International Law? It Depends on the Source*, 12 COLO. J. INT’L ENVTL L. & POL’Y 1, 17 (2001).

²⁷ See, e.g., ALAN E. BOYLE & MICHAEL R. ANDERSON, HUMAN RIGHTS APPROACHES TO ENVIRONMENTAL PROTECTION (1996); EARTHJUSTICE LEGAL DEFENSE FUND, HUMAN RIGHTS AND THE ENVIRONMENT (2001); W. PAUL GORMLEY, HUMAN RIGHTS AND THE ENVIRONMENT: THE NEED FOR INTERNATIONAL COOPERATION (1976); HUMAN RIGHTS AND CLIMATE CHANGE (Stephen Humphreys ed., 2010); HUMAN RIGHTS AND THE ENVIRONMENT (Maguelonne Dejeant-Pons & Marc Pallemarts eds., 2002); HUMAN RIGHTS AND THE ENVIRONMENT: CASES, LAW, AND POLICY chs. 2, 3, 5–8 (Svitlana Kravchenko & John E. Bonine eds. & contris., 2008); LINKING HUMAN RIGHTS AND THE ENVIRONMENT (Romina Picolotti & Jorge Daniel Taillant eds., 2003); PEOPLE’S RIGHTS (Philip Alston ed., 2001); PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 291-307 (2d ed. 2003); SIERRA CLUB LEGAL DEFENSE FUND, HUMAN RIGHTS AND THE ENVIRONMENT: THE LEGAL BASIS FOR A HUMAN RIGHT TO THE ENVIRONMENT (1992); EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY (1989); Mariana T. Acevedo, *The Intersection of Human Rights and Environmental Protection in the European Court of Human Rights*, 8 N.Y.U. ENVTL. L.J. 437 (2000); Sam Adelman, *Rethinking Human Rights: The Impact of Climate Change on the Dominant Discourse*, in HUMAN RIGHTS AND CLIMATE CHANGE, *supra*; Gudmundur Alfredson & Alexander Ovsioyk, *Human Rights and the Environment*, 60 NORD. J. INT’L L. 19 (1991); Sumudu Atapattu, *The Right to Life or the Right to Die Polluted: The Emergence of a Human Right to a Healthy Environment Under International Law*, 16 TUL. ENVTL. L.J. 65 (2002); Daniel Bodansky, *Introduction: Climate Change and Human Rights: Unpacking the Issues*, 38 GA. J. INT’L & COMP. L. 511 (2010); Alan E. Boyle, *Human Rights or Environmental Rights? A Reassessment*, 18 Fordham Envtl L. Rev. 471 (2008); _____. *Human Rights and the Environment: A Reassessment?* (Dec. 2009) (Draft Paper, UNEP/OHCHR High Level Expert Meeting on the the New Future of Human Rights and the Environment: Moving the Global Agenda Forward, Nov. 30-Dec 1, 2009, on file with the authors); Lynda M. Collins, *Are We There Yet? The Right to Environment in International and European Law*, 2007 MCGILL INT’L J. SUSTAINABLE DEV. L. & POL’Y 119; Caroline Dommen, *Claiming Environmental Rights: Some Possibilities Offered by the Human Rights Mechanism*, 11 GEO. INT’L L. REV. 1 (1998); Jonas Ebbesson, *Participatory and Procedural Rights in Environmental Matters: State of Play* (Dec. 2009) (Draft Paper, UNEP/OHCHR High Level Expert Meeting on the the New Future of Human Rights and the Environment: Moving the Global Agenda Forward, Nov. 30-Dec 1, 2009, on file with the authors); Melissa Fung, *The Right to a Healthy Environment: Core Obligations under the International Covenant on Economic, Social and Cultural Rights*, 14 WILLAMETTE J. INT’L L. & DISP. RESOL. 97 (2006); Noralee Gibson, *The Right to a Clean Environment*, 54 SASK. L. REV. 5 (1990); W. Paul Gormley, *The Legal Obligation of the International Community to Guarantee a Pure and Decent Environment: The Expansion of Human Rights Norms*, 3 GEO. INT’L ENVTL. L. REV. 85 (1990); _____. *The Right to a Safe and Decent Environment*, 28 INDIAN J. INT’L L. 1 (1988); _____. *The Right of Individuals to be Guaranteed a Pure, Clean and Decent Environment: Future Programs of the Council of Europe*, 1 LEGAL ISSUES EUR INTEGRATION 23 (1975); Gunther Handl, *Human Rights and Protection of the Environment: A Mildly Revisionist View*, in HUMAN RIGHTS, SUSTAINABLE DEVELOPMENT AND THE ENVIRONMENT 117 (A. Cançado Trindade ed., 1992); _____. *Human Rights and the Protection of the Environment*, in ECONOMIC, SOCIAL AND CULTURAL

focus of our project, however, we limit our discussion to a summary of their findings together with some of our own. The details of the findings we leave to an addendum that we hope provides adequate supportive authority for the summary that follows.²⁸

Before proceeding, however, an essential caveat: our focus here is on what we have learned about the accepted “formal” or “official” law of the State system (nationally and internationally)—“State law” we call it—not from the commonly unacknowledged “informal” or “unofficial” law that emanates from the everyday perspectives and interactions of “ordinary” human beings “pushing and pulling through reciprocal claim and mutual tolerance in [their] daily competition for power, wealth, respect, and other cherished values.”²⁹ It is, however, helpful to remember that “[l]aw does not live by executives, legislators, and judges alone”³⁰ and that it can and does exist beyond the formal corridors of power. It assuredly exists in our essentially “horizontal” and voluntarist international legal order, which by definition lacks a formal center; but it exists also in our “vertical” and compulsory national legal orders, where all sorts of behavioral codes regulate sectors of life (church

RIGHTS: A TEXTBOOK (Asbjorn Eide, Catarina Krause & Allan Rosas eds., 2d ed. 2001); Iveta Hodkova, *Is There a Right to a Healthy Environment in the International Legal Order?*, 7 CONN. J. INT’L L. 65 (1991); John H. Knox, *Linking Human Rights and Climate Change at the United Nations*, 33 HARV. ENVTL. L. REV. 477 (2009); _____, *Climate Change and Human Rights Law*, 50 VA. J. INT’L L. 163 (2009); Svitlana Kravchenko, *Procedural Rights as a Crucial Tool to Combat Climate Change*, 38 GA. J. INT’L & COMP. L. 613 (2010); _____, Kravchenko, *Right to Carbon or Right to Life: Human Rights Approaches to Climate Change*, 9 VT. J. ENVTL. L. 513, 514 (2008); John Lee, *The Underlying Legal Theory to Support a Well-Defined Human Right to a Healthy Environment as a Principle of Customary International Law*, 25 COLUM. J. ENVTL. L. 283 (2000); Marc Limon, *Human Rights Obligations and Accountability in the Face of Climate Change*, 50 VA. J. INT’L L. 5433 (2009); Andrzej Makarewicz, *La Protection Internationale du Droit y L’Environnement*, in ENVIRONNEMENT ET DROITS DE L’HOMME 77 (Pascale Kromarek ed., 1987); John G. Merrills, *Environmental Rights*, in THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 666 (Daniel Bodansky, Jutta Brunée & Ellen Hey eds., 2007); R.S. Pathak, *The Human Rights System As a Conceptual Framework for Environmental Law*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS 205 (Edith B. Weiss ed., 1992); Neil Popovic, *In Pursuit of Environmental Human Rights: Commentary on the Draft Declaration of Principles on Human Rights and the Environment*, 27 COLUM. HUM. RTS. L. REV. 487 (1996); Lavanya Rajamani, *The Increasing Currency and Relevance of Rights-Based Perspectives in International Negotiations on Climate Change*, 22 J. ENVTL. L. 391 (2010); Rodriguez-Rivera, *supra* note 26; Naomi Roht-Arriaza, *“First Do No Harm”: Human Rights and Efforts to Combat Climate Change*, 38 GA. J. INT’L & COMP. L. 593 (2010); Dinah Shelton, *Human Rights, Environmental Rights, and the Right to Environment*, 28 STAN. J. INT’L L. 103 (1991); _____ *The Right to Environment*, in THE FUTURE OF HUMAN RIGHTS PROTECTION IN A CHANGING WORLD: FIFTY YEARS SINCE THE FOUR FREEDOMS ADDRESS, ESSAYS IN HONOR OF TORSEL OPSAHL 197 (Asbjorn Eide & Jan Helgesen eds., 1991); _____ *Human Rights and the Environment: Past, Present and Future Linkages and the Value of a Declaration* (Dec. 2009) (Draft Paper, UNEP/OHCHR High Level Expert Meeting on the the New Future of Human Rights and the Environment: Moving the Global Agenda Forward, Nov. 30-Dec 1, 2009, on file with the authors); Amy Sinden, *Climate Change and Human Rights*, 27 J. LAND RES. & ENVTL. L. 255 (2007); Heinhard Steiger et al., *The Fundamental Right to a Decent Environment*, in TRENDS IN ENVTL. POL’Y & L. 1 (Michael Bothe ed., 1980); Melissa Thorne, *Establishing Environment as a Human Right*, 19 DEN. J. INT’L L. & POL’Y 301 (1991); Antonio Augusto A. Cançado Trindade, *The Contribution of International Human Rights Law to Environmental Protection, with Special Reference to Global Environmental Change*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS 244 (Edith Brown Weiss ed., 1992); Henn-Juri Uibopuu, *The Internationally Guaranteed Right of an Individual to a Clean Environment*, 1 COMP. L. Y.B. 101 (1977).

²⁸ The Addendum (titled “The Status of the Human Right to a Clean and Healthy Environment”) is on file with, and available from, the authors in PDF format (hereinafter “Addendum”).

²⁹ Burns H. Weston, *The Role of Law in Promoting Peace and Violence: A Matter of Definition, Social Values, and Individual Responsibility*, in TOWARD WORLD ORDER AND HUMAN DIGNITY 114, 117 (W. Michael Reisman & Burns H. Weston eds., 1976).

³⁰ *Id.* at 117.

canons, sports rules, norms of social etiquette) without formal State approval. We call this important dimension of governance “Vernacular Law,” and deal with it at greater length in Sections III, IV, and V.³¹ For now, let us simply note that distinctions between formal/official and informal/unofficial present false dichotomies if invoked and applied too rigidly. Different orders of legal process are far more fluid and complementary—and therefore far more interpenetrating and interdependent—than is commonly recognized.

A. The Human Right to Environment as Officially Understood

We turn, now, to the summary conclusions that may be drawn about the right to environment as formally or officially understood within the statist legal order. Five are particularly noteworthy.

1. There are at least three ways in which the human right to environment is today officially recognized juridically:

- *as an entitlement derived from other recognized rights*, centering primarily on the substantive rights to life, to health, and to respect for private and family life, but embracing occasionally other perceived surrogate rights as well—e.g., habitat, property, livelihood, culture, dignity, equality or nondiscrimination, and sleep;³²
- *as an entitlement autonomous unto itself*, dependent on no more than its own recognition and increasingly favored over the derivative approach insofar as national constitutional and regional treaty prescriptions proclaiming such a right are evidence;³³ and
- *as a cluster of procedural entitlements* generated from a “reformulation and expansion of existing human rights and duties”³⁴ (akin to the derivative substantive rights noted first above) and commonly referred to as “procedural environmental rights.”³⁵

³¹ The term “Vernacular Law” originates in the informal, unofficial zones of society, as we discuss in Section III, *infra*, and is a source of moral legitimacy and power in its own right. This helps explain why colonial powers often used law to repress local languages in favor of their controlling mother tongues, or that post-colonial governments have used to consolidate the rule of their linguistic culture in multilingual settings. See, e.g., Robert J. Gordon, *Vernacular Law and the Future of Human Rights in Namibia* (NISER Discussion Paper No. 11, The Namibian Institute of Social and Economic Research, University of Namibia, November 1991). In several instances, however, Gordon’s essay among them, we have found the term used to describe “informal,” “unofficial” “customary,” “grass-roots,” “indigenous,” or “local” law, or what Michael Reisman elucidates and calls “microlaw” in his germinal study *Law in Brief Encounters* (1999). In the end, concerned to emphasize the “living law”—communicative life pulse—nature of this form or level of legal process, we elected the term “Vernacular Law,” inspired by the late Ivan Illich’s essays on “Vernacular Values” first published in *CoEvolution Quarterly* and the basis of his book *Shadow Work* (1981). As summarized in a chapter on Illich in Trent Schroyer’s *Beyond Western Economics: Remembering Other Economic Cultures* 69 (2009), these values evoke “the vernacular domain,” a “sensibility and rootedness . . . in which local life has been conducted throughout most of history and even today in a significant proportion of subsistence- and communitarian-oriented communities,” i.e., “those places and spaces where people are struggling to achieve regeneration and social restoration against the forces of economic globalization.” We do not, however, restrict our use of the term to these “places and spaces” alone. For further pertinent discussion, see *infra* Sections III, IV, and V.

³² For details, see Addendum § A, *supra* note 28, at 2-20 (fn 83 especially).

³³ For details, see Addendum § B, *id.* at 20-37.

³⁴ Shelton (1991), *supra* note 27, at 117.

***2. All three of these official juridical manifestations of the human right to environment, however robust in their particularized applications, are essentially limited in their legal recognition and jurisdictional reach.*³⁶**

On the global plane, no treaty provides for a human right to environment explicitly in either its autonomous or derivative form; one recognizes its autonomous existence, though only implicitly and in passing;³⁷ and so far but one global-level court decision affirms the right explicitly though in its derivative form (via the rights to life and to health as surrogates for it),³⁸ as do also a few treaty-body rulings, but only implicitly.³⁹ Otherwise, the recognition and reach of the human right to environment globally is left largely to a series of progressive resolutions, declarations, charters, and other assorted instruments affirming the right in its autonomous form, but all or most of them technically non-binding or at best disputed in their juridical quality or significance. Included among them is the historically prominent and influential 1972 Stockholm Declaration on the Human Environment⁴⁰ which, first in modern times, affirmed the right to environment not only in the autonomous sense but, as well, in the derivative sense via the rights to life and health. Contemporary legal scholarship, however, influenced by frightening environmental trends, actual and anticipated, evinces an increased willingness to reassess the juridical vitality of this “soft law” (as often is inadequately called).⁴¹

On the regional plane, the right to environment is recognized and supported by several treaties: one each in Africa and Latin America that affirm it explicitly in its autonomous form;⁴² two others in Europe that, with the help of regionally authoritative regulatory and judicial decisions, embrace it

³⁵ For details, see Addendum § C, *id.* at 37-45.

³⁶ For details, see Addendum §§ A-C, *id.* at 2-45.

³⁷ See Convention on the Rights of the Child, art. 1, Nov. 20, 1989, 1577 U.N.T.S. 44, *reprinted in* 28 I.L.M. 1448 (1989) and III BASIC DOCUMENTS, *supra* note 13, at III.D.5.

³⁸ See Gabčíkovo-Nagymaros Project (Hung. v. Slov.), 1997 I.C.J. 7.

³⁹ See, for example, Communication No. 67/1980, U.N. Doc. CCPR/C/OP/1, para. 8 (1984), 2 SELECTED DECISIONS OF THE HUMAN RIGHTS COMMITTEE 20 (1990) and *Mrs. Vaibere Bordes and Mr. John Temeharo v. France*, Communication No. 645/1995, U.N. Doc. CCPR/C/57/D/645/1995 (1996), 6 SELECTED DECISIONS OF THE HUMAN RIGHTS COMMITTEE 15 (1996) each dismissed on technical procedural grounds. For details, see Addendum § A, *supra* note 28, at ??-??

⁴⁰ Stockholm Declaration of the United Nations Conference on the Human Environment [hereinafter “Stockholm Declaration”], para. 1, (June 16, 1972), U.N. Doc. A/CONF.48/14/Rev.1 at 3, U.N. Doc. A/CONF.48/14 at 2-65 and Corr 1, 1972 U.N. Jurid. Y.B. 319, *reprinted in* V BASIC DOCUMENTS, *supra* note 13, at V.B.3.

⁴¹ For further clarification of this scholarly trend, see *infra* Conclusion 4, at 18.

⁴² See African Charter on Human and People’s Rights (“Banjul Charter”), art. 24, June 27, 1981, OAU Doc. CAB/LEG/67/3/Rev. 5, *reprinted in* 21 I.L.M. 58 (1982) and III BASIC DOCUMENTS, *supra* note 13, at III.B.1; Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, art. 10, Nov. 17, 1988, O.A.S.T.S. *reprinted in* 28 I.L.M. 156 (1989) and III BASIC DOCUMENTS, *supra* note 13, at III.B.32a; see also the 1998 UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, June 25, 1998, 2161 U.N.T.S. 447, U.N.Doc. ECE/CEP/43, *reprinted in* 38 I.L.M. 517 (1999) and V BASIC DOCUMENTS, *supra* note 13, at V.B.18 (also known and hereinafter cited as the “Aarhus Convention”), which is principally focused on procedural environmental rights but not without first confirming in its preamble “that every person has the right to live in an environment adequate to his or her health and well-being . . .”

implicitly in its derivative guise;⁴³ and still another, the widely adopted European Aarhus Convention, acclaimed by the United Nations and others beyond Europe's frontiers, that honors the human right to environment in terms of detailed procedural rights.⁴⁴

Individually and together, these diplomatic initiatives make for a distinctly more receptive milieu for the human right to environment than prevails on the global plane. However, excepting perhaps the procedural environmental rights codified in the Aarhus Convention, the very fact of their regionalism and thus their inherent jurisdictional limits prevent finding in these eco-friendly juridical practices the making of a global customary international law right to environment.⁴⁵ This is all the more true in light of two additional facts: first, the bulk of these practices are found in the developing world, still seeking full effectual citizenship in the international legal order; second, the right to environment has been upheld in the African and Latin American regional systems principally with reference to the rights of native indigenous peoples and according to national constitutional and treaty safeguards unique to them at least in part.⁴⁶ Even the popularity of the deservedly lauded procedural rights detailed in the Aarhus Convention may be negatively interpreted partially as vestiges of the ideological Cold War divide which made room for certain procedural rights but thwarted the joinder of civil/political and economic/social substantive rights.

⁴³ See European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR), arts. 2 (right to life) & 8 (right to private and family life), Nov. 4, 1950, 213 UNTS 221, CETS. 5, *reprinted in* III BASIC DOCUMENTS, *supra* note 13, at III.B.8, and Charter of Fundamental Rights of the European Union, arts. 2 & 27, Dec. 7, 2000, C364 OJEC. 8, 2007 OJ (C303)1, *reprinted in* 40 I. L.M. 266 (2001) and III BASIC DOCUMENTS, *supra* note 13, at III.B.19, now incorporated into the Consolidated Version of the Treaty on European Union the Treaty on the Functioning of the European Union, Dec. 30, 2010, 2010 OJ (C 83) 1, *reprinted in* I BASIC DOCUMENTS, *supra* note 13, at I.B.21. For leading judicial decisions interpreting one or more of these treaties, see *Öneriyildiz v. Turkey*, No. 48939/99, Eur. Ct. H. R. 2004-XII (2005), 41 Eur. H.R. Rep. 20 (Nov. 30, 2004) (right to life); *Lopez Ostra v. Spain*, No.16798/90, 20 Eur. Ct. H.R. (ser. A), No. 303-C (1995), 20 Eur. H.R. Rep. 277 (Dec. 9, 1994) (right to private and family life); and *Taskin and Others v. Turkey*, No. 46117/99, 2004-X, 42 Eur. H. R. Rep. 50 (Nov. 10, 2004) (right to private and family life, but dismissed on procedural grounds).

⁴⁴ See 1998 Aarhus Convention, *supra* note 42. At this writing, ⁴⁵ European states plus the European Community are party to the Aarhus Convention: Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia/ Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Community, Finland, France, Georgia, Germany, Greece, Hungary, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Tajikistan, Turkmenistan, Ukraine, United Kingdom.

⁴⁵ We note the possible exception of the Aarhus Convention, *supra* note 42, because it applies not only to most of Europe (including Russia and the former Soviet bloc countries of Eastern Europe) but also to eight of the nine former Soviet republics in Central Asia. While the United States, a member of the U.N. Economic Commission for Europe (the Convention's sponsor), is not a party to the agreement and withdrew from negotiations on it, it justified its stance in part on the grounds that the Convention would not require the reporting of specific pollutants, only waste as a whole. It is also to be noted that, at the time, the United States was "one of the few nations that already has a well established system of pollution reporting" and that much of the Aarhus Convention was already reflected in U.S. domestic law. *U.S. Backs Out of Register Treaty Group*, ENVIRONMENTAL NEWS SERVICE (Nov. 25, 2002), <http://www.ens-newswire.com/ens/nov2002/2002-11-25-10.html> (accessed Aug. 23, 2011). All of which points to a convention that resonates and possibly even persuades beyond its expressly authorized jurisdiction. As stated by former U.N. Secretary-General Kofi Annan shortly before the Convention's entry into force: "Although regional in scope, the significance of the Aarhus Convention is global." Kofi Annan, *Forward* to ECONOMIC COMMISSION FOR EUROPE, THE AARHUS CONVENTION: AN IMPLEMENTATION GUIDE, at v (2000).

⁴⁶ For more details, see Addendum §§ A-C, *supra* note 28, at 2-45.

On the national/local plane, as on the regional plane, legal support for the right to environment exists in both its derivative and autonomous forms, although in this setting more in constitutional and statutory mandates backed by judicial decisions from the lowest to highest of national tribunals than pursuant to international law.⁴⁷ Especially noteworthy are the growing numbers of new or amended national and subnational (provincial, state) constitutions that, explicitly and implicitly, provide for a right to environment in the autonomous sense.⁴⁸ Where these provisions appear to be taken as presumably intended—i.e., without judicially fabricated constraints upon subject-matter jurisdiction or proof of personal economic loss, as in the United States, for example⁴⁹—they contribute to the building of a general principle of law recognized under international law as an authoritative “source of law” for the rendering of international legal judgments, judicial and otherwise.

The majority of these law-making and law-enforcing exercises, however, are restricted largely to the world’s developing countries in Latin America, Sub-Saharan Africa, and South Asia (especially India), and to the Eastern European countries formerly of the Soviet Union and Soviet bloc. In each case, however, it seems that they have been pursued largely for idiosyncratic reasons: in the first instance, to erect a protective shield against ecologically derelict business enterprise as experienced in the past, not least at the hands of foreign corporations (e.g., Ecuador’s Oriente, India’s Bhopal, Nigeria’s Ogoniland); and in the second instance, as a demonstrative embrace of “environmental democracy” meant to enhance a nation’s prospective membership in the European Union.⁵⁰ In other words, the generality of the incipient general principle appears to be limited.

In sum, a juridically recognized right to environment may be said to exist officially in Africa, Asia, Europe, and Latin America based on regional treaty or national constitutional authority or both as follows:

⁴⁷ See Addendum § C ¶, *id.* at ¶¶. For examples of, and commentary on, pertinent constitutional provisions, see CONSTITUTIONAL RIGHTS TO AN ECOLOGICALLY BALANCED ENVIRONMENT (Isabelle M Larmuseau ed., 2007) (hereinafter “CONSTITUTIONAL RIGHTS”).

⁴⁸ The United States is not among them at the federal level, though in 1968 Senator Gaylord Nelson of Wisconsin urged unsuccessfully for a constitutional amendment that would have recognized within the U.S. Bill of Rights that “[e]very person has the inalienable right to a decent environment.” H.R.J. Res. 1321, 90th Cong., 2d Sess. (1968). Similarly, in 2003, Representative Jesse Jackson, Jr. tendered without success a U.S. constitutional amendment “respecting the right to a clean, safe, and sustainable environment.” H.R.J. Res. 33, 108th Cong., 1st Sess. (2003). On the other hand, a known eighteen of U.S. states have adopted constitutional provisions expressly affirming a state’s duty to protect the environment or recognizing an autonomous right to a clean and healthy environment.

⁴⁹ A known eighteen U.S. states have adopted constitutional provisions expressly affirming a state’s duty to protect the environment or recognizing an autonomous right to a clean and healthy environment (or a component thereof, such as a right to clean water): ALA. CONST. art. VIII; CAL. CONST. art. X, § 2; FLA. CONST. art. II, § 7; HAW. CONST. art. XI; ILL. CONST. art. XI; LA. CONST. art. IX; MASS. CONST. art. XCVII, § 179; MICH. CONST. art. IV, § 52; MONT. CONST. art. IX, § 1; N.M. CONST. art. XX; N.Y. CONST. art. XIV; N.C. CONST. art. XIV, § 5; OHIO CONST. art. II, § 36; PA. CONST. art. I, § 27; R.I. CONST. art. I, § 17; TEX. CONST. art. XVI, § 59; UTAH CONST. art. XVIII; VA. CONST. art. XI, § 1. Few of these provisions have major effect, however, owing to a largely judicial but widespread judgment that they are “non-self-executing” or “non-justiciable” or, in any event, subject to a strict “standing” requirement of personal economic injury. For details, see Matthew Thor Kirsch et al., *Upholding the Public Trust Doctrine in State Constitutions*, 46 DUKE L. J. 1169 (1997); Dinah Shelton, *Environmental Rights in the State Constitutions of the United States*, in CONSTITUTIONAL RIGHTS, *supra* note 47, at 111-24 (citing Kirsch et al.).

⁵⁰ For more details, see Addendum §§ A-C, *supra* note 28, at ¶¶.

- *in Africa* (i.e., sub-Saharan Africa), in its autonomous form courtesy of a regional treaty⁵¹ backed by a treaty commission decision (invoking also, *sua sponte*, the derivative rights to life and health),⁵² and in its derivative form (mainly the right to life) as pronounced in a few national judicial decisions interpreting constitutional mandates;⁵³
- *in Asia* (i.e., South Asia, mainly India), in both its autonomous and derivative forms, via the enforcement by national courts largely of express constitutional authority—though to a degree of growing extraterritorial influence sufficient to suggest the emergence of at least a regional “general principle” voicing the right to environment;⁵⁴
- *in Europe*, in three ways: (1) in its derivative form, mainly via the European Court of Human Rights’s interpretative application of the 1950 European Convention on Human Rights and Fundamental Freedoms,⁵⁵ (2) in its autonomous form, principally in Eastern Europe according to national constitutional mandates, and (3) in procedural terms throughout Europe and extending into Central Asia by virtue of the Aarhus Convention and national constitutional and statutory law;⁵⁶ and
- *in Latin America*, as in Africa, in its autonomous form courtesy of a regional treaty⁵⁷ backed by treaty commission decisions so far limited to the rights of indigenous peoples save for one recent such decision that implicitly recognizes an autonomous right to environment for all.⁵⁸

3. *The same relatively favorable assessment cannot be made of the human right to environment on the global plane—or, for that matter, in all or most regions and nations of the world at this time—from the standpoint of statist legal process.*

The sum total of the legal and “quasi-legal” instruments affirming the human right to environment on the global plane, while possibly predictive of future decisional trends, cannot be said

⁵¹ The 1981 Banjul Charter, *supra* note 42, art.24.

⁵² *The Social and Economic Rights Action Center and the Center for Economic and Social Rights v. Nigeria*, *African Commission on Human and Peoples’ Rights*, Comm. No. 155/96, Case No. ACHPR/COMM/A044/1, Oct. 27, 2001, <http://www.umn.edu/humanrts/Africa/comcases/allcases.html> (2001) (accessed June 25, 2011).

⁵³ For details, see *infra* Addendum § B.3, *supra* note 28, at ??.

⁵⁴ Interestingly, legal scholars and activists appear yet to rely on this law-making authority to defend the standing of the right to environment.

⁵⁵ *Supra* note 43.

⁵⁶ See Bende Toth, *Public Participation and Democracy in Practice—Aarhus Convention Principles as Democratic Institution Building in the Developing World*, 30 J. LAND RESOURCES & ENVTL. L. 295, 298–320 (2010) (describing how the three pillars of the Aarhus Convention are mirrored in United States federal law, and how they have been implemented domestically in Europe); see also *supra* note 44 (listing the European and Central Asian parties to the Aarhus Convention). Given the acclaim accorded the Aarhus Convention (*supra* note 42) by the United Nations and others outside Europe, and the preexisting pollution-reporting systems codified in the domestic law of the United States (see *supra* note 45), it is credible to suggest that the right to procedural environmental rights as articulated in the Convention may be evolving into customary international law status.

⁵⁷ The 1988 Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, *supra* note 42.

⁵⁸ See *Case of the Saramaka People v. Suriname*, Inter-Am. Ct. Hum. Rts., Ser. C, No. 172 (Nov. 28, 2007).

to reflect general customary international law at present, or at least not in the eyes of the majority of the current world's *formal/official* governing elites. Neither the quantum nor strength of these communications support such a conclusion,

On the regional and national planes, except for the possible but as yet uncertain extra-regional impact of the Aarhus Convention relative to procedural environmental rights⁵⁹ and the occasional and national court case invoking international legal authority to define or support a derivative or autonomous right to environment, few law-making and law-enforcing processes sympathetic to the right to environment have demonstrated juridical resilience beyond their regional or national frontiers, few even within these frontiers as well. This makes it impossible or at best difficult to deduce from the sum of them a customary practice or general principle that might credibly validate a global right to environment. The full geographic compass of these procedural environmental rights are unclear at this time. So also are the number of jurisdictions and different kinds of legal systems in which they are recognized, and other such conditioning factors.

4. A number of highly respected international human rights and environmental law scholars and practitioners demur from the foregoing assessment on the grounds that the right to environment—derivative, autonomous, or procedural—may be said to exist universally when pertinent “soft law” instruments and “the intrinsic value of the environment” are taken into account.

Increasingly international human rights and environmental law scholars and practitioners are calling for or seriously entertaining an “expansive” right to environment as a means to enhance environmental protection.⁶⁰ They do so, understandably, out of concern over current scientific forecasts, but also out of dissatisfaction with “traditional” international legal process which, they persuasively argue, is not up to the ecological challenges now facing the planet.⁶¹ Among their grievances is “a traditionalist approach to the sources of international law” that “rejects as unpersuasive” the existence of an “expansive right to environment.”⁶² Professor Rodriguez-Rivera states the case perhaps most succinctly:

There are many instruments that serve as unmitigated sources for the recognition of the human right to environment in the international legal order, including: the thousands of international environmental soft law instruments; the many national constitutions and legislative acts; the dozens of international, regional, and national court decisions; the

⁵⁹ *Supra* note 42.

⁶⁰ Notable among them is Rodriguez-Rivera, *supra* note 26. For further example, see PATRICIA W. BIRNIE & ALAN E. BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* 254-59 (2d ed. 2002); GORMLEY, *supra* note 27, at 233; ALEXANDER KISS & DINAH SHELTON, *INTERNATIONAL ENVIRONMENTAL LAW* 173-78 (1992); _____, *INTERNATIONAL ENVIRONMENTAL LAW—1994 SUPPLEMENT* 5-6 (1994); SANDS, *supra* note 27, at 294-307; Geoffrey Palmer, *New Ways To Make International Environmental Law*, 86 AM. J. INT’L L. 259 (1992); John H. Knox, *Climate Change and Human Rights Law*, 50 Va. J. Int’l Law 163 (2009), Rajamani, *supra* note 27.

⁶¹ Thus did New Zealand’s former Prime Minister, Attorney-General, and Minister for the Environment Sir Geoffrey Palmer warn as long ago as 1991: “There is no effective legal framework to help halt the degradation . . . There is no institutional machinery to evaluate gaps that may be found in the international framework of agreements or to develop means of assigning priorities among competing claims for attention.” Palmer, *supra* note 60, at 263.

⁶² Rodriguez-Rivera, *supra* note 26, at 44.

hundreds of non-governmental international organizations; the thousands of local or “grass-roots level” community organizations, and, more importantly, the overwhelming and sweeping transformation in the valoration of environmental concerns in all levels of society. To ignore this voluminous evidence of the will of the people would be to ignore the evolution of international law during the last half-century.⁶³

To this may be added former Indian Chief Justice R.S. Pathak’s observation, sounded later in Judge Weeramantry’s separate opinion in the World Court’s *Gabcikovo-Nagymaros Project* case,⁶⁴ that a clean and healthy environment being indispensable to a life itself, let alone to one of dignity and to the fulfillment of other rights and needs, is warrant enough to establish an autonomous right to environment on a universal basis.⁶⁵

The fact remains, however, that all law, its existence and its reach, and irrespective of its official or unofficial stature, is not about authority alone, but about authority *and* control jointly (not necessarily in equal measure, but jointly nonetheless). It also is fact that the statist legal world has yet to perform the control or applicative function to fulfill the right to environment (however defined) except in demonstrably limited, often idiosyncratic ways. It is not that the espoused right to environment does not have the content or justiciable standards necessary for statist endorsement and enforcement, as Professor Handl has argued.⁶⁶ Nor is it that the “will of the people” should be ignored—indeed, the environment would likely be in better shape today had “ordinary people” been regularly consulted and given real voice yesterday. It is that the world’s policy- and decision-making elites (with the notable exclusion of much of the developing world) simply have not yet accepted or recognized the right, or the combined “soft” and hard” law authority on which it is said to stand, sufficiently to count as law universally or, indeed, as law at all.⁶⁷ The same control or applicative threshold we apply to customary international law in theory, but to all law in practice—the “bite” or “compliance pull” of sanction—has yet to be formally or officially crossed. It is the accepted authentication and application of durably enforceable norms over time that makes them socially as well as jurisprudentially significant.

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⁶³ *Id.* at 45.

⁶⁴ *Supra* note 38.

⁶⁵ See Pathak, *supra* note 27, at 211-14

⁶⁶ See Handl, *supra* note 27.

⁶⁷ For more details, see Addendum § A, *supra* note 28, at ??-??. While some may not currently recognize environmental rights as law, the myriad of “soft law” instruments endorsing such rights exemplify what Nobel Prize winner Amartya Sen calls the “proto-legal” connection between human rights and law—that is, the fact that human rights often form the grounds for adopting legislation, and in some cases might be called “law in waiting.” Amartya Sen, *The Global Status of Human Rights*, Grotius Lecture to the International Legal Studies Program, American University, Washington D.C. (March 23, 2011).

5. The human right to environment, in at least its derivative and autonomous modes if not also its procedural one, is unlikely to grow in normative recognition and jurisdictional reach as long as the state of international law and ecological governance within the current formal/official national and international legal orders remains unchanged.

A fundamental problem with current national and international environmental law decision-making is a substantial tendency to rely on outmoded jurisprudence developed in a pre-industrial era when, for the most part, environmental harm did not cross national boundaries. A consequential assumption (and legacy) of this jurisprudence is that both the economic benefits and the environmental costs of a State's policies remain within that State's territory. Jurists thus refrain from adjudicating the substantive issues of environmental law and policy that typically inform right-to-environment claims notwithstanding the implications that such deference has for the environmental rights of humans and other species living outside the State's territory. Instead, deferring to likewise outmoded notions of State sovereignty, jurists tend to limit themselves to procedural rights issues that, as demonstrated by the popularity of the Aarhus Convention,⁶⁸ appear less likely to offend national jurisdictional sensibilities: access to information, public participation in environmental decision-making, and recourse to just remedies. This orientation—judicial resistance to substantive environmental decision-making—is found similarly at the national level. United States courts applying the “political question” doctrine, for example, will make the deferential calculus, often politically inspired, that substantive environmental issues are the province of the legislative and regulatory branches of government, not the judiciary.⁶⁹ The substantive issues raised by climate change, rapidly dwindling biodiversity, and other such major environmental problems, many of them trans-boundary in character, thus face significant theoretical and practical obstacles.

Generally overlooked, however, is yet another and very serious obstacle to the future of the right to environment as presently conceived (derivative and autonomous especially). At all levels of State governance, most of the world's major industrial powers simply do not support the legal (as opposed to moral) recognition of the right to the environment. Not surprisingly, China and the United States, the world's two largest emitters of greenhouse gases, are among them. Yet non-support is far more widespread than this, at least to the extent that it may be measured by a failure or refusal to do as at least 56 countries have done (most of them developing countries and former members of the Soviet Union or Soviet bloc) and constitutionalize the right to environment. In addition, a majority of the G-20 countries, and about half the world's top 33 economies (as determined by the International Monetary Fund) fail to meet this standard of support.⁷⁰ This roster of nations includes Australia, Canada, the European Union, Germany, India, Indonesia, Italy, Japan, Mexico, Saudi Arabia, and the United Kingdom as well as China and the United States. Non-support correlates closely with countries that have advanced economies and that are operationally if not also ideologically committed to neoliberal economic dealing, domestically and internationally.

⁶⁸ *Supra* note 42.

⁶⁹ See *Baker v. Carr*, 369 U.S. 186 (1962) (outlining the political question doctrine in its formal posture).

⁷⁰ See IMF, *World Economic Outlook Database* (April 2010), <http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx> (accessed June 25, 2011).

On the other hand, a failure or refusal to embrace a treaty or constitutional endorsement of the right to environment (derivative, autonomous, or procedural) does not necessarily indicate a State's lack of attention to, or respect for, environmental well-being, any more than does a treaty or constitution that solemnly proclaims the right ensure its implementation. Numerous treaties and constitutions advocate the protection of the environment and its natural resources, and often assert a State's obligation to prevent harm to them. Such claims are also made by States with advanced economies otherwise unrestrained by treaty or constitution.

So it may just be that the environment is perceived by jurists in advanced economies to involve too many imponderables and indeterminacies to fashion and implement a workable right in relation to it.⁷¹ But if this be so, how then does one explain the numerous treaty- and constitution-based decisions where—as in South Asia, for example—judges and other decision-makers, often of common law training, have somehow managed to overcome these uncertainties? No doubt these complexities are acute in the climate change and biodiversity contexts. But what explains the resistance outside these contexts? And since when is it impossible for judges and other decision-makers to learn from environmental experts and specialists, even to enlist them as “special masters” of the court?”

Perhaps then the fundamental problem is just an instinctive conservatism about developing new or expanded norms and procedures to protect the environment, especially in settings where free market sensibilities are strong or assertions of extraterritorial jurisdictional overreach are suspected. Jurists can and often do make narrow interpretations of critical legal authority—in the United States, for example—minimizing or disregarding broader community interests and policies at stake.

A case in point in the United States is *Flores v. Southern Peru Copper Corporation*, decided by the U.S. Court of Appeals for the Second Circuit in 2003.⁷² Peruvian residents and representatives of deceased residents brought personal injury claims against an American copper mining company under the U.S. Alien Tort Claims Act (ATCA),⁷³ alleging that pollution from the mining company's Peruvian operations had caused them severe, even fatal lung disease. They asserted, too, that their fundamental human rights to life, health, and sustainable development (i.e., their derivative right to a clean and healthy environment) had been violated by this environmental degradation. But they did not succeed. The court held, *inter alia*, (a) that the rights to health and life were “insufficiently definite” to be binding norms of customary international law that could underwrite subject-matter jurisdiction under ATCA; and (b) that the existence of a customary international law rule against intranational pollution was “not established” so as to provide a basis for jurisdiction under ATCA. In reaching this decision, the court, found each type of supporting authority provided by the plaintiffs—applicable treaties, General Assembly resolutions, decisions by international tribunals, and affidavits of international law experts—to be inadequate to validate their claims even though the authority provided appears to have exceeded the requirements relied upon in the leading precedent, the court's own, *Filártiga v. Peña-Irala*.⁷⁴ And it did so by using narrow grounds to distinguish its

⁷¹ See in this connection Rajamani, *supra* note 27, at 409-10.

⁷² 406 F.3d 65 (2d Cir. 2003).

⁷³ 28 U.S.C. § 1350.

⁷⁴ 630 F.2d 876 (2d Cir. 1980).

decision from *Filártiga*, and without providing clear standards for future litigants as to what constitutes a violation of customary international law actionable under ATCA. One is led to wonder why it was so difficult for the court to do what its common law counterparts in Bangladesh, India, Nepal, and Pakistan have had no trouble in doing when faced with similar issues.⁷⁵ One is led to wonder also whether *Flores* is not in the tradition of the mid- to late-19th century U.S. railroad cases when continental economic expansion and development in the name of Manifest Destiny led the courts to rule against farmers, workers, and unions and “twist[ed] the law unduly in favor of the railroads and of other closely connected corporations.”⁷⁶

U.S. resistance to the human right to a clean and healthy environment as expressed in *Flores* is evident on the international plane as well. In *Mossville Environmental Action Now v. United States*, a 2010 admissibility hearing before the Inter-American Commission on Human Rights (IACHR), hundreds of Mossville, Louisiana residents (mostly African-Americans) suffering from, or put at risk of, “various health problems caused by toxic pollution released from fourteen chemical-producing industrial facilities”⁷⁷ sought relief by claiming violations of their rights to life, health, privacy, and equal protection, as proclaimed in the 1948 American Declaration of the Rights and Duties of Man.⁷⁸ While the IACHR held that the petitioners had alleged sufficient evidence to establish a *prima facie* case that environmental harm had violated the petitioners’ claimed rights, it did not reach this conclusion without vigorous opposition from the United States.⁷⁹ “[There is] no such right as the right to a healthy environment either directly, or as a component of the rights to life, health, privacy and inviolability of the home, or equal protection and freedom of discrimination,” the U.S. argued, and, further, that the U.S. should be considered a “persistent objector” whenever the claimed right is espoused against it.

⁷⁵ See e.g., *Farooque vs. Government of Bangladesh* (Bangladesh, 1996) (upholding the plaintiffs’ standing based on environmental harm that violated domestic and international legal provisions and made the plaintiffs “persons aggrieved” for purposes of establishing standing); *K.M. Chinnappa v. Union of India* (Supreme Court of India, 2002) (holding that mining on forest land violated the plaintiff’s right to environment under the Stockholm Declaration and domestic constitutional provisions); *Prakash Mani Sharma v. His Majesty’s Government Cabinet Secretariat* (Nepal, 2003) (holding that the government must enforce essential measure to reduce pollution in the Katmandu Valley in order to comply with several constitutional provisions as well as international law); *Anjun Irfan v Lahore Development Authority* (Pakistan, 2002) (holding that the constitutional right to life includes, *inter alia*, the right to an unpolluted environment); see also Addendum, §2, *supra* note 28, at ??-??.

⁷⁶ FRED RODELL, *NINE MEN: A POLITICAL HISTORY OF THE SUPREME COURT FROM 1790 TO 1955*, 146 (1955).

⁷⁷ Organization of American States, Report No. 43/10, Petition No. 232-05, OEA/Ser LV/II 138 (Mar. 17, 2010), at 1.

⁷⁸ American Declaration of the Rights and Duties of Man, adopted at Bogota by the Ninth International Conference of American States, 30 March-2 May 1948. OAS Res OAS Off Rec OEA/Ser L/V/I.4 Rev (1965), arts I, II, V, IX, XI, & XXIII; reprinted in III BASIC DOCUMENTS, *supra* note 13, at III.B.27.

⁷⁹ Nor did the IACHR reach a decision entirely favorable to the petitioners. Finding that the petitioners had exhausted their available U.S. remedies in respect of their claimed violations of their rights to equal treatment before the law and to privacy (involving the inviolability of the home), the it declared these claims admissible. However, as it found petitioners not to have exhausted their available domestic remedies relative to their claimed violations of their rights to life and health, the IACHR denied their admissibility. It also should be noted that the petitioners did not claim explicitly that their right to a healthy environment had been violated, doubtless because the American Declaration does not expressly recognize such a right. However, one may reasonably infer from the U.S. defense, that both the petitioners and the IACHR were assuming the existence of at least a derivative right to environment.

Of course, the two cases cited are but two cases, and involving the United States only. No doubt others from within the United States and beyond can be cited in contradistinction to them. They are, however, symptomatic of a larger pattern of environmental disregard when “free market” values are at stake. In the United States, for further U.S. example, the courts have long resisted constitutionally recognized environmental rights and duties⁸⁰ and downgraded citizen suits authorized by key environmental protection statutes⁸¹ while going out of their way to recognize corporations and unions as “persons” with a constitutional free-speech right to advocate independently the election or defeat of candidates for federal office.⁸² Similarly, the U.S. Congress has balked at enacting effective climate change legislation⁸³ while rushing to encourage more offshore drilling even after the Deepwater Horizon oil disaster;⁸⁴ the Department of Interior has made a competitive lease-selling of 758 million tons of coal mining land in Wyoming’s Powder River Basin;⁸⁵ and the Department of State has, **at this writing**, given an “initial green light” to a huge pipeline company with a history of major spills to carry oil to the American heartland from the tar sands of Alberta.⁸⁶

The United States is not alone in these respects. In addition to comparable developmental policies in other countries—such as the European Union’s Common Fisheries Policy (CFP) of continuous allocation of fishing quotas greater than the fish stocks can bear⁸⁷— the two premier threats to Earth’s ecosystems, climate change and biodiversity, have gone, despite prominent scientific warnings, largely unaddressed except by the essentially dysfunctional Kyoto Protocol to the

⁸⁰ See *supra* notes 48 and 49 and accompanying text.

⁸¹ See, e.g., *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992), requiring that all plaintiffs, including civil society defenders of the environment, must suffer a concrete, discernible injury—not a “conjectural or hypothetical one”—to have standing to sue in federal court. “In these circumstances,” observes Professor Sunstein, “the citizen suit is probably best understood as a band-aid superimposed on a system that can meet with only mixed-success. Instead of band-aids, modern regulation requires fundamental reform.” Cass R. Sunstein, *What’s Standing After Lujan? Of Citizen Suits, ‘Injuries,’ and Article III*, 91 MICH. L. REV. 163, 222 (1992).

⁸² *Citizens United v. Federal Election Commission*, Case No. 08-205, 130 S.Ct. 876 (2010), holding unconstitutional a 62-year-old federal statute that prohibited corporations from making direct expenditures to support or oppose candidates in federal elections.

⁸³ See Carl Hulse & David M. Herszenhorn, *Democrats Call Off Climate Bill Effort*, N.Y. TIMES, July 23, 2010, at A15, also available at <http://www.nytimes.com/2010/07/23/us/politics/23cong.html> (accessed July 21, 2011).

⁸⁴ See posting of Daniel Foster to The Corner, Support for Offshore, ANWR Drilling Reaches New Heights, <http://www.nationalreview.com/corner/262094/support-offshore-anwr-drilling-reaches-new-heights-daniel-foster> (Mar. 14, 2011, 2:19 pm).

⁸⁵ Press Release, U.S. Department of the Interior, Salazar Announces Coal Lease Sales in Wyoming, (Mar. 22, 2011), <http://www.doi.gov/news/pressreleases/Salazar-Announces-Coal-Lease-Sales-in-Wyoming.cfm> (accessed July 22, 2011). These sales have prompted three environmental groups to sue the Bureau of Land Management, charging the Bureau with irresponsible stewardship of public land. M.J. Clark, *Coal Lease Sales Lead to Lawsuits*, WYOMING BUSINESS REPORT, Aug. 23, 2011, <http://www.wyomingbusinessreport.com/article.asp?id=59357> (accessed Aug. 23, 2011).

⁸⁶ Lee-Anne Goodman, *State Department's Environmental Analysis Gives Pipeline an Initial Green Light*, WINNIPEG FREE PRESS, The Canadian Press—Online Edition, Aug. 26, 2011, 10:32 AM, <http://www.winnipegfreepress.com/arts-and-life/life/greenpage/state-dept-says-us-canada-oil-pipeline-wont-cause-big-environmental-problems-128464813.html> (accessed Aug. 27, 2011).

⁸⁷ See European Commission, *The Common Fisheries Policy: A User’s Guide* (2008), http://ec.europa.eu/fisheries/documentation/publications/pcp2008_en.pdf (accessed July 22, 2011).

United Nations Framework Convention on Climate Change⁸⁸ and the 1972 Convention on Biological Diversity.⁸⁹ The notoriously failed Fifteenth Meeting of the States Parties to the United Nations Framework Convention on Climate Change held in Copenhagen in December 2009 (COP 15)⁹⁰ never had a real chance of success.⁹¹ Not even the non-binding “Copenhagen Accord” drafted by Brazil, China, India, South Africa, and the United States, though dubbed a “meaningful agreement” by the U.S., was adopted, much less passed unanimously, by the participating States.⁹² Developed countries refused to commit to legally binding emission reductions and to financing and technology for developing country climate mitigation and adaptation needs, and the so-called “Basic Countries” (the rising developing nations bloc of Brazil, China, India, and South Africa) were prepared to block any imposition of binding emissions reductions on them lest this curb their economic growth.⁹³

On final analysis, then, it may just be that, in a highly decentralized and essentially voluntarist international legal order, the bottom-line imperatives of the contemporary global political-economy invariably trump human rights and environmental values. Clearly it is not a system that invites widespread, much less universal, legal recognition and enforcement of a human right to a clean and healthy environment. Incredulous though it may seem, many smart and sophisticated people seem incapable of understanding that our formal/official national and international legal orders are structurally organized to contribute to—and not prevent—the deterioration of the natural world. Elizabeth Kolbert of *The New Yorker* puts it crisply: “It may seem impossible to imagine that a technologically advanced society could choose, in essence, to destroy itself, but that is what we are now in the process of doing.”⁹⁴

What, then, do we conclude from these findings from the formal/official legal world? That the human right to a clean and healthy environment exists in legal as well as moral terms? Yes. That it is juridically most strongly recognized in its derivative versus autonomous form? Yes. That this acceptance is found principally in the developing worlds of Africa, Asia, and Latin America? Yes. That it is recognized also in expanded procedural terms principally in industrialized Europe? Yes.

⁸⁸ Dec. 10, 1997, FCCC/CP/1997/7/Add.1; reprinted in 37 I.L.M. 32 (1998) and V Basic Documents, *supra* note 13, at V.E.20d.

⁸⁹ June 5, 1992, 1760 U.N.T.S. 79; reprinted in 31 I.L.M. 818 (1992) and V BASIC DOCUMENTS, *supra* note 13, at V.H.22.

⁹⁰ The acronym “COP” is shorthand for “Conference of the Parties” to the 1992 Climate Change Convention.

⁹¹ Tom Zeller Jr., *Fault Lines Remain After Climate Talks*, INT’L HERALD TRIBUNE, Jan. 4, 2010, <http://www.nytimes.com/2010/01/04/business/energy-environment/04green.html?ref=unitednationsframeworkconventiononclimatechange> (accessed July 22, 2011).

⁹² For the text of the Copenhagen Accord (Dec. 18, 2009), see U.N. Doc. FCCC/CP/2009/11/Add.1 at 5, <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf> (accessed June 25, 2011).

⁹³ In fairness, it must be noted that this agreement, while initially opposed by many countries and NGOs because it contained no legally binding commitments for reducing CO2 emissions, as many as 141 countries, including the 27-member European Union, have “engaged” or are likely to have “engaged” with the Accord as of June 7, 2011, representing 87.24% of global emissions, according to U.S. Climate Action Network (USCAN), <http://www.usclimate.org/policy/copenhagen-accord-commitments> (accessed June 25, 2011). The central issue is of course the meaning or terms of “engagement.”

⁹⁴ ELIZABETH KOLBERT, *FIELD NOTES FROM A CATASTROPHE: MAN, NATURE AND CLIMATE CHANGE* 189 (2006).

That there exists a growing sentiment, albeit more regional and national than global, favoring an autonomous right to environment? Yes.

But at bottom, it seems, it all comes down to a simple but profound truth: that as long as ecological governance remains in the grip of essentially unregulated (liberal or neoliberal) capitalism—a regime responsible for much if not most of the plunder and theft of our ecological wealth in the last, roughly 150 years—there never will be a human right to environment widely recognized and honored across the globe in any formal/official sense, least of all an autonomous one. This truly is another inconvenient truth.

The roots of this failure to come to terms with humankind's systemic destruction of the environment are deep. They are reinforced, legitimized, and perhaps even sanctified by the Scientific Revolution of the 16th and 17th centuries as embodied in the philosophical views of Copernicus, Bacon, Galileo, Descartes, and Newton. We also are heirs to a religious anthropocentrism born of the Reformation, which encouraged so-called “civilized” humans to see themselves as separate from nature and, indeed, as its master beneficiaries rather than its servant stewards. It has become normal to treat non-human species as *things or objects* to be exploited, not as fellow *beings or subjects* to be respected. So long as this worldview prevails—so long as we continue to insist that humans are outside nature and that nature has no limits—the mainstream economic and political paradigm will not take the right to environment seriously, and it will remain an idiosyncratic influence at best.⁹⁵ It should be added that neither Soviet-based communism nor Chinese-style State capitalism has shown an ability to transcend this way of thinking and governing any more than the capitalist West.

B. Two Attractive Alternatives and Their Complexities

In light of the ever accelerating catastrophe of climate change, species depletion, the exhaustion of vital resources, and overpopulation—all provoking “discomfiting images of a non-future”⁹⁶—two alternative legal approaches to the right to a clean and healthy environment have emerged in recent years, each in its own way seeking to surmount the wall of resistance to the right to environment that, as noted, has kept it largely in check to date. The first approach—intergenerational environmental rights—relies heavily on its ability to appeal to the moral conscience of existing, disaggregated legal processes. The second—nature's environmental rights—chooses instead to alter the procedural playing field altogether. At the same time, they share several features in common: in their legal character they are autonomous or holistic rather than derivative or disaggregate; they partake of both substantive and procedural environmental rights, in the sense that they reformulate and re-conceptualize environmental rights and look to claimant surrogates to enforce them; and they are asserted, to date, at the official national and subnational levels primarily. Politically, both approaches—intergenerational and nature's rights—reflect a deep frustration with the environmental community's conventional terms of advocacy and the formal legal order's deep commitments to a neoliberal political and economic system.

⁹⁵ *Accord*, Alberto Acosta, *Toward a Universal Declaration of Rights of Nature* (article for the AFESE Journal, Aug. 24, 2010), available in unpaginated manuscript form at http://www.e-joussour.net/files/DDNN_ingl.pdf (accessed Aug. 19, 2011); CULLINAN, *supra* note 20, at ch. 2 (“The Illusion of Independence”).

⁹⁶ WESTON & BACH, *supra* note 22, at 60.

1. Intergenerational Environmental Rights

The assertion of intergenerational environmental rights focuses on the ecological rights of future generations. Born in modern times of the pioneering scholarship of Edith Brown Weiss⁹⁷ and continued with others⁹⁸ (including one of us⁹⁹), it is premised on the understanding, first, that “the future” is a temporal space without outer limits (because such matters as the storage of radioactive waste make it unwise, except for cognitive convenience, to define “the future” narrowly¹⁰⁰) and, second, that “future generations” includes all persons under 18 years¹⁰¹ (i.e., children, as defined by Article 1 of the Convention on the Rights of the Child¹⁰²). These rights insist that each generation must receive a “natural and cultural legacy” in legal trust from previous generations; that this legacy, in turn, each generation holds in legal trust for generations in its future; and that this trust relationship grants to future generations a legal right to at least three conditions of ecological and cultural well-being that each living generation is legally obligated to fulfill:

- *conservation of ecological options*—i.e., each living generation shall “conserve the [planet’s] natural and cultural resource base” and thus “not unduly restrict the options available to future generations in solving their problems and satisfying their own values”;¹⁰³
- *conservation of the quality of the planet*—i.e., each living generation shall “maintain the . . . planet so that it is passed on in no worse condition than the present generation received

⁹⁷ See Brown Weiss’s germinal book *IN FAIRNESS TO FUTURE GENERATIONS*, *supra* note 27, at 26. But see also the earlier essay collection *RESPONSIBILITIES TO FUTURE GENERATIONS: ENVIRONMENTAL ETHICS* (Ernest Partridge ed., 1980).

⁹⁸ See, e.g., Tracy Bach, *The Recognition of Intergenerational Rights and Duties in U.S. Law*, in WESTON & BACH, *supra* note 22, Appendix A (CLI Background Paper No. 6); Tracy Bach, *The Recognition of Intergenerational Rights and Duties in Foreign Law*, in WESTON & BACH, *supra* note 22, Appendix A (CLI Background Paper No. 7) (2010); WILFRED BECKERMAN & JOANNA PASEK, *JUSTICE, POSTERITY, AND THE ENVIRONMENT* (2001); *FAIRNESS AND FUTURITY* (Andrew Dobson ed., 1999); *HANDBOOK OF INTERGENERATIONAL JUSTICE* 53 (Jörg Chet Tremmel ed., 2006); RICHARD P. HISKES, *THE HUMAN RIGHT TO A GREEN FUTURE: ENVIRONMENTAL RIGHTS AND INTERGENERATIONAL JUSTICE* (2009); *INTERGENERATIONAL JUSTICE* (Axel Gosseries & Lukas H. Meyer eds., 2009); EDWARD A. PAGE, *CLIMATE CHANGE, JUSTICE AND FUTURE GENERATIONS* (2006) JÖRG CHET TREMMEL, *A THEORY OF INTERGENERATIONAL JUSTICE* (2009); LAURA WESTRA, *ENVIRONMENTAL JUSTICE AND THE RIGHTS OF UNBORN AND FUTURE GENERATIONS: LAW, ENVIRONMENTAL HARM, AND THE RIGHT TO HEALTH* (2006).

⁹⁹ See Burns H. Weston, *The Foundational Theories of Intergenerational Ecological Justice—An Overview*, forthcoming in 34 *HUM. RTS. Q. NO. 1* (Feb. 2012); see also Burns H. Weston, *Climate Change and Intergenerational Justice: Foundational Reflections*, 9 *VT. J. ENVTL. L.* 375 (2008); WESTON & BACH, *supra* note 22, at 17-27.

¹⁰⁰ *Energy Inst., Inc. v. Env’tl. Prot. Agency*, 373 F.3d 1251, 362 U.S. App. D.C. 204 (D.C. Cir. 2004), a case that concerned, *inter alia*, the temporal standard to be applied to activate safely a federal repository for spent nuclear fuel and high-level radioactive waste at Yucca Mountain, Nevada, the time frame contested ranged from between 10,000 to “hundreds of thousands of years after disposal, ‘or even farther into the future.’” However, because it helps bring potentially vague future persons into meaningful focus, and thereby helps to mobilize much needed political energies, we recommend, for this convenience only, a notion of future generations defined by three and a half generations of persons that exist from this day forward, a notion that is derived from the “one hundred year present” of the late sociologist Elise Boulding. See Elise Boulding, *The Dynamics of Imaging Futures*, 12 *WORLD FUTURE SOCIETY BULL.* No. 5, at 7 (Sept-Oct 1978).

¹⁰¹ I.e., children, as defined by Article 1 of the Convention on the Rights of the Child, *supra* note 37.

¹⁰² *Id.*

¹⁰³ BROWN WEISS, *supra* note 27, at 38, elaborated at 40-42.

it,” recognizing that future generations are “entitled to a quality of the planet comparable to the one enjoyed by previous generations”;¹⁰⁴ and

- *conservation of equitable resource access*—i.e., each living generation shall “provide its members with equitable rights of access to the legacy [of resources and benefits received] from past generations . . . and conserve this access for future generations.”¹⁰⁵

Conditions or obligations of intergenerational ecological justice,¹⁰⁶ these three principles facilitate both the right to, and the reality of, a clean and healthy environment for future generations (living and yet to be born) assuming, of course, a received clean and healthy ecological legacy in the first place). They also are widely endorsed in the documentary literature (some of it predating Brown Weiss) and appear now to be increasingly accepted juridically.¹⁰⁷ One may assume this is so if for no other reason than that they comport with both the ethical and pragmatic rationales that give intergenerational justice moral purpose and with the jurisprudential theories of social justice that give

¹⁰⁴ *Id.* at 42-43.

¹⁰⁵ *Id.* at 43-45.

¹⁰⁶ In the literature, the terms “intergenerational justice” and “intergenerational equity” may be understood interchangeably. We prefer “intergenerational justice,” however, because “equity” has lost some of its resonance since equity was combined with law into one cause of action, but more importantly because it evokes the fundamentally relevant sensibility of “social justice.”

¹⁰⁷ See, e.g., Stockholm Declaration, *supra* note 40; Convention for the Protection of the World Cultural and Natural Heritage, Nov. 16, 1972, 1037 U.N.T.S. 151, *reprinted in* 11 I.L.M.1358 (1972) and V BASIC DOCUMENTS, *supra* note 13, at V.B.4; Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Dec. 29, 1972, 1046 U.N.T.S. 120, *reprinted in* 11 I.L.M. 1294 (1972) and V BASIC DOCUMENTS, *supra* note 13, at V.F.14; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Mar. 3, 1973, 993 U.N.T.S. 243, *reprinted in* 12 I.L.M. 1085 and V BASIC DOCUMENTS, *supra* note 13, at V.H.10; Charter of Economic Rights and Duties of States, G.A. Res. 3281, at 50, U.N. GAOR, 29th Sess., Supp. No. 31, U.N. Doc A/9631 (Dec. 12, 1974); *reprinted in* 14 I.L.M. 251 (1975) and IV BASIC DOCUMENTS, *supra* note 13, at IV.F.5; Historical Responsibility of States or the Preservation of Nature for Present and Future Generations, G.A. Res. 35/8, at 15, U.N. GAOR, 35th Sess., Supp. No. 48, U.N. Doc A/35/48 (Oct. 30, 1980); *reprinted in* V BASIC DOCUMENTS, *supra* note 13, at V.B.9; U.N. World Charter for Nature, G.A. Res. 37/7 (Annex), at 17, U.N. GAOR, 37th Sess., Supp. No. 51, U.N. Doc A/37/51 (Oct. 28, 1982); *reprinted in* 22 I.L.M. 455 (1983) and V BASIC DOCUMENTS, *supra* note 13, at V.B.11; the Rio Declaration on Environment and Development, June 13, 1992, U.N. Doc. A/CONF.151/26 (1992), *reprinted in* 31 I.L.M. 874 (1992) and V BASIC DOCUMENTS, *supra* note 13, at V.B.16 (hereinafter “Rio Declaration”); and the Declaration of The Hague, Mar. 11, 1989, U.N. Doc. A/44/340, *reprinted in* 28 I.L.M. 1308 (1989) and V BASIC DOCUMENTS, *supra* note 13, at V.E.13; U.N. Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107, *reprinted in* 31 I.L.M. 849 (1992) and V BASIC DOCUMENTS, *supra* note 13, at V.E.19; Convention on Biological Diversity, *supra* note 89; several regional seas conventions such as the Revised Barcelona Mediterranean Sea Convention, June 10, 1995, U.N. Doc. UNEP (OCA)/MED IG.6 (Annex), *reprinted in* V BASIC DOCUMENTS, *supra* note 13, at V.F.30a-1; UNESCO Declaration on Responsibilities Towards Future Generations, Nov. 12, 1997, <http://unesdoc.unesco.org/images/0011/001102/10220e.pdf#page=75> (accessed June 25, 2011); Aarhus Convention, *supra* note 42; Declaration of Bizkaia on the Right to Environment, United Nations Educational, Scientific and Cultural Organization, Feb. 12, 1999, 30th Sess., Doc. 30C/INF.11 (1999), *reprinted in* III BASIC DOCUMENTS, *supra* note 13, at III.S.5; International Mother Earth Day, G.A. Res. 63/278, at 4, U.N. GAOR, 63d Sess., Supp. No. 49, vol. III, U.N. Doc. A/RES/63/49 (Apr. 22, 2009), *reprinted in* V BASIC DOCUMENTS, *supra* note 13, at V.???.???. Especially noteworthy is the 1998 Aarhus Convention, *supra*, which builds on the “conservation of access” principle in considerable detail. For helpful insight, see Jeremy Wates, *The Aarhus Convention: Promoting Environmental Democracy*, in SUSTAINABLE JUSTICE: RECONCILING ECONOMIC, SOCIAL AND ENVIRONMENTAL LAW 393 (Marie-Claire Cordonier Segger & C.G. Weeramantry eds., 2005).

[them] legal standing,¹⁰⁸ i.e., distributive, reciprocity-based, and respect-based theories of social justice.¹⁰⁹

These theories of intergenerational justice have been voiced in some quarters of everyday law and policy. In the *Bamaca Vélasquez Case* decided by the Inter-American Court of Human Rights in November 2000, for example, Judge Cançado Trindade, in his separate opinion, observed as follows:

Human solidarity manifests not only in a spatial dimension—that is, in the space shared by all peoples of the world—but also in a temporal dimension—that is, among the generations who succeed each other in the time, taking the past, present and future altogether. . . . It is the notion of human solidarity, understood in this wide dimension, and never that of State sovereignty, which lies on [sic] the basis of the whole contemporary thinking on the rights inherent to the human being.¹¹⁰

This kind of thinking, however, has scant support in statist circles internationally—and nationally, for that matter. The far-sighted, eloquent argument famously put forward by the United States in the 1893 *Bering Sea Fur Seals Arbitration*¹¹¹ (U.S. v. Great Britain) in defense of intergenerational environmental rights has not been resurrected in most of contemporary international jurisprudence; and though an impressive array of international instruments express concern for the ecological legacy we leave to future generations,¹¹² either they do not have the force of law or, if considered binding, they lack enforcement procedures adequate to moving from the aspirational to the justiciable.¹¹³

¹⁰⁸ For extensive treatment of the ethical rationales, see *MORAL GROUND: ETHICAL ACTION FOR A PLANET IN PERIL* (Kathleen Dean Moore & Michael P. Nelson eds., 2010); see also Weston (2008), *supra* note 99, at 397-405 (including pragmatic rationales); Weston (2012) *supra* note 99.

¹⁰⁹ The respect-based theory of social justice that we favor builds on two distinct but conceptually related intellectual traditions: the relational metaphysics and “process philosophy” of Alfred North Whitehead, on the one hand, and the values that underlie human rights law and policy, on the other, the core value of which—respect—honors difference, freedom, of choice, equality of opportunity, and aggregate well-being in value processes. For further elaboration and justification, see references cited in note 99, *supra*.

¹¹⁰ Judgment of Nov. 25, 2000, Inter-Am. Ct. H.R. (Ser. C), No. 70 (July 25, 2000), at ¶ 23.

¹¹¹ See IX Fur Seal Arbitration 2-8 (Washington: Government Printing Office 1895). In a passage that could have been written with present-day greenhouse gases and climate change in mind, the U.S. expressed the ideal of intergenerational justice as a Whitehead-informed, respect-based theory would have it:

The earth was designed as the permanent abode of man through ceaseless generations. Each generation, as it appears upon the scene, is entitled only to use the fair inheritance. It is against the law of nature that any waste should be committed to the disadvantage of the succeeding tenants. The title of each generation may be described in a term familiar to English lawyers as limited to an estate for life; or it may with equal propriety be said to be coupled with a trust to transmit the inheritance to those who succeed in at least as good a condition as it was found, reasonable use only excepted. That one generation may not only consume or destroy the annual increase of the products of the earth, but the stock also, thus leaving an inadequate provision for the multitude of successors which it brings into life, is a notion so repugnant to reason as scarcely to need formal refutation.

Id. at 65–66 (footnotes omitted).

¹¹² See, e.g., all the instruments cited in note 107, *supra*.

¹¹³ For confirmation, see WESTON & BACH, *supra* note 22, at 35-36, 44-45, and 52–53.

There are some notable exceptions that, both explicitly and implicitly, strive to conserve ecological options, maintain ecological quality, and/or provide ecological access to benefit future generations—for example, the 1992 conventions on climate change and biological diversity¹¹⁴ and the 1998 Aarhus Convention.¹¹⁵ But the principal legal recognition of an intergenerational right to the core elements of a clean and healthy environment is found mainly at the national and subnational levels, in constitutions, statutes, regulations, and judicial and other third-party decisions, both explicitly and implicitly.¹¹⁶

For example, an amendment to the Constitution of France (by way of its 2004 Charter for the Environment) provides that “[e]ach person has the right to live in a balanced environment which shows due respect for health”;¹¹⁷ and in the French Civil Code it is made subject to the principle of sustainable development which, the Code states, makes it necessary “[to] protect the health of current generations without compromising the ability of future generations to meet their own needs.”¹¹⁸ The Basic Law of Germany, on the other hand, recognizes the ecological rights of future generations implicitly (dwelling on duty in lieu of right): “Mindful . . . of its responsibility toward future generations, the state shall protect the natural foundations of life and animals . . .”¹¹⁹ Similarly implicit is the Constitution of the Commonwealth of Pennsylvania as amended in 1971 to mark the first Earth Day, proclaiming that “[t]he people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and aesthetic values of the environment” and that these resources “are the common property of all the people, including generations yet to come,” held in trust by the Commonwealth for all their benefit.¹²⁰ Likewise, the Constitution of the State of Montana as amended in 1972, mandates that “the state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.”¹²¹

Also illustrative are such legislative initiatives as Japan’s Basic Environmental Law of 1993 which provides, *inter alia*, that “environmental conservation shall be conducted appropriately to ensure that the present and future generations of human beings can enjoy the blessings of a healthy and productive environment . . .”¹²² New Zealand’s 1996 Resource Management Amendment Act was designed in part to “[s]ustain the potential of natural and physical resources . . . to meet the

¹¹⁴ *Supra* note 107.

¹¹⁵ *Supra* note 42.

¹¹⁶ See WESTON & BACH, *supra* note 22.

¹¹⁷ LA CONSTITUTION FRANÇAISE DU 4 OCTOBRE 1958, Charte de l’environnement de 2004, <http://www.assemblee-nationale.fr/english/8ab.asp> (English transl., accessed June 25, 2011).

¹¹⁸ C. CIV., art. L110-2 (2002), <http://195.83.177.9/code/liste.phtml?lang=uk&c=40> (accessed June 25, 2011).

¹¹⁹ GRUNDGESETZ [GG] [Constitution] art. 20(a), <https://www.btg-bestellservice.de/pdf/80201000.pdf> (English transl., accessed June 25, 2011).

¹²⁰ PA. CONST., art. I, § 27.

¹²¹ MONT. CONST., art. IX, §1.

¹²² Law No. 91 of 1993, ch. 1, art. 3, <http://www.env.go.jp/en/laws/policy/basic/ch1.html> (Japan, accessed June 25, 2011).

reasonably foreseeable needs of future generations.”¹²³ And the U.S. Congress, in enacting the 1994 National Environmental Policy Act (NEPA), declared its intention “[to] create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic and other requirements of present and future generations of Americans,” facilitated in part by mandated environmental impact assessments.¹²⁴

Similar intentions lie behind the establishment in the United States of state public trusts and parks such as the Alaska Permanent Fund (created “to benefit all generations of Alaskans”¹²⁵) and New York State’s Adirondack Park (the largest protected area in the contiguous United States, declared to be “forever wild”¹²⁶). Not to be overlooked either are tribal codes such as those giving voice to the “seventh generation principle,”¹²⁷ extending responsibility for the environment far into the future.¹²⁸ And worldwide, as one should expect, there are favorably disposed administrative directives and regulations, both national and subnational, interpreting and overseeing environmental actions and laws with an eye to the ecological rights of future generations—though, it appears, exceedingly few judicial decisions.¹²⁹

¹²³ Resource Management Act 1991, 1991 S.N.Z. No. 69, §5, <http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html> (New Zealand, accessed June 25, 2011); see also WESTON & BACH, *supra* note 22, at 97 n.115 (listing New Zealand expressly references the environmental rights of future generations).

¹²⁴ 42 USC. §4331(A) (1970).

¹²⁵ ALASKA STAT. §37.13.020 (2004).

¹²⁶ N.Y. CONST., art. XIV; see also Nicholas Robinson, “Forever Wild”: New York’s Constitutional Mandates to Enhance the Forest Preserve, DIGITALCOMMONS@PACE (Feb. 15, 2007), <http://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1283&context=lawfaculty> (accessed June 25, 2011).

¹²⁷ E.g., the Dine Natural Resources Protection Act of 2005, <http://www.sric.org/uranium/DNRPA.pdf> (accessed June 25, 2011).

¹²⁸ See WESTON & BACH, *supra* note 22, at 31 discussing the mission statement of the Great Lakes Indian Fish and Wildlife Commission invoking the “Anishinaabe Way” that embraces the “Seventh Generation” principle in ecosystem management; N. Bruce Duthu, *The Recognition of Intergenerational Ecological Rights and Duties in Native American Law*, a “background paper” in Appendix A of WESTON & BACH, *supra* note 22. See generally BRIAN EDWARD BROWN, RELIGION, LAW AND THE LAND: NATIVE AMERICANS AND THE JUDICIAL INTERPRETATION OF SACRED LAND (1999).

¹²⁹ For six known cases granting intergenerational relief, see *Cape May Count Chapter, Inc., Izaak Walton League of America v. Macchia*, 329 F. Supp. 504 (D.N.J. 1971) (holding that an environmental group had standing to sue in a representative status in a class action suit on behalf of future generations to prevent the dredging and development of an island off the coast of New Jersey); *Concerned About Trident v. Rumsfeld*, 555 F.2d 817 (D.C. Cir. 1976) (holding that the Navy’s environmental impact statement [EIS] was insufficient because it limited the EIS analysis to environmental harms up to a time only seven years away and thus held that the EIS “fail[ed] to ensure that the environment will be preserved and enhanced for the present generation, much less for our descendants”); *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011 (D.C. Cir. 1978) 9 (reasoning that “the health and safety gains that achievement of the [Clean Water] Act’s aspirations would bring to future generations will in some cases outweigh the economic dislocation it causes in the present generation”); *Nat’l Wildlife Fed’n v. Burford*, 835 F.2d 305, 326 (D.C. Cir. 1987) (stating that “denying the motion could ruin some of the country’s great environmental resources—and not just for now but for generations to come”); *Juan Antonio Oposa, et al. vs. Fulgencio S. Factorian, Jr., et al.*, G.R. No. 101083, July 30, 1993, (noting in dicta that minors, their parents, and the Philippine Environmental Network had standing to sue for their own generation and for successive generations based on the concept of intergenerational responsibility and the right to a balanced and healthful ecology), http://www.lawphil.net/judjuris/juri1993/jul1993/gr_101083_1993.html (accessed June 25, 2011); *Gray v. The Minister for Planning*, (2006) NSWLEC 720, ¶ 116 (Australia) (reasoning that environmental impact assessments are key considerations because they include the public interest and they enable the “present generation to meet its obligation of intergenerational equity by ensuring the health, diversity and productivity of the environment is

In sum, as the foregoing illustrations suggest, the intergenerational right to a clean and healthy environment is backed by powerfully persuasive ethical or moral arguments¹³⁰ and is well established in law *as a matter of principle*. Overall, however, legal recognition of intergenerational environmental rights has been hemmed in by doctrines of nonjusticiability and is limited in scope and practice. The right thus must be understood as still emerging. On the other hand, the rights of future generations could plausibly be applied to climate change and other such large-scale hazards.¹³¹

2. Nature's Environmental Rights

On September 28, 2008, the people of Ecuador approved, by a 2 to 1 margin, a new constitution that for the first time in modern history recognizes legally enforceable ecosystem rights. Title II ("Fundamental Rights"), Chapter 7 ("Rights of Nature") of the new constitution¹³² grants Nature "the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes."¹³³ In short, Nature is put on the same legal footing as individuals and governments, corporations, and other legal persons to enforce it. Title II treats the natural world—or "Pacha Mama [Goddess Earth], where life is reproduced and occurs"—as having protective rights of its own; when threatened, they can be adjudicated via human surrogates, thus granting Nature legal standing—potentially even beyond Ecuador, depending on the construct of the dispute. The constitution stipulates that "all persons, communities, peoples and nations" can call upon public authorities to enforce the rights of Nature."¹³⁴ It adds that "Nature has the right to be restored" and that "[t]his restoration shall be apart from the obligation of the State and natural persons or legal entities to compensate individuals and communities that depend on affected natural systems."¹³⁵

This constitutional innovation was inspired by indigenous communities in Ecuador demanding environmental protection of their traditional habitats from exploitation and abuse by large, predominantly corporate interests (as in Texaco's defilement of Ecuador's Oriente rainforest¹³⁶). It must be understood as an historic, audacious lifting of the right to a clean and

maintained and enhanced for the benefit of future generations").

¹³⁰ For such arguments, see references in note 99, *supra*.

¹³¹ See generally, TREMMEL, *supra* note 98.

¹³² To our best knowledge, no official translation of the 2008 Ecuador Constitution has yet been released. For Title II, Chapter Seven, we therefore rely on an English language rendition provided by the Edmund A. Walsh School of Foreign Service at Georgetown University, offering also the original Spanish version of the Constitution. See <http://pdba.georgetown.edu/constitutions/ecuador/ecuador.html> (accessed June 25, 2011). A somewhat different English translation is provided also by the Community Environmental Legal Defense Fund (CELDF), a Pennsylvania-based NGO dedicated to providing legal assistance to governments and community groups working to reconcile human affairs with the natural environment. See <http://celdf.org/rights-of-nature-ecuador-articles-of-the-constitution> (accessed June 25, 2011). CELDF having assisted Ecuador's Constitutional Assembly in the drafting of Title II, Chapter 7, we believe it to be a worthy translation also.

¹³³ Ecuador Constitution of 2008, *supra* note 132, at Title II, Ch. 7, art. 1.

¹³⁴ *Id.*

¹³⁵ *Id.* art. 2.

¹³⁶ See Inter-Am. Comm. H. R., *Report on the Situation of Human Rights in Ecuador*, OEA/Ser.L/V/II.96, doc. 10 rev.1 (1997), ch. VIII. Reporting on the human rights situation of some 500,000 indigenous peoples in Ecuador's interior

healthy environment to a new, higher level of legal recognition and activism. Not only are plaintiffs stripped of the need to prove self-injury to have legal standing—a hallmark of most judicial systems today—the autonomous right *to* a clean and healthy environment is converted into an autonomous right *of* the environment itself to be clean and healthy. “The essence of Nature’s Rights,” affirms former President of Ecuador’s Constituent Assembly Alberto Acosta in a vigorous and eloquent defense of Ecuador’s constitutional daring, “is rescuing the ‘*right to existence*’ of human beings *themselves*. . . . [H]uman beings cannot live apart from Nature.”¹³⁷

This “Rights of Nature” idea is certainly not without its critics and active resisters. Indeed, it faces an uncertain future in Ecuador itself in light of President Rafael Correa’s recent political shift rightward. Still, these “Rights of Nature” provisions have helped set in motion what has come to be called the “Pachamama” or “Earth Jurisprudence” movement, now spreading elsewhere, in sub-Saharan Africa, Australia, Canada, India, the United Kingdom, and even the United States, but most prominently in Bolivia.¹³⁸

In 2008, the President of Bolivia, Aymara Indian Evo Morales, convened and hosted in Cochabamba the People’s Conference on Climate Change and the Rights of Mother Earth,¹³⁹ an achievement that prompted the U.N. General Assembly in 2009 to declare Morales “World Hero of Mother Earth.”¹⁴⁰ The conference, held in the small town home of an historic “water war” that helped sweep Morales into power, resulted in a proposed “Universal Declaration of the Rights of Mother Earth”¹⁴¹ and a “People’s Agreement.”¹⁴² Doubtless energized by the conference, President

(known as the Oriente), the IACHR observed that “severe environmental pollution” resulting from decades of developmental activities, mostly of oil drilling concessionaires (Texaco and Ecuador’s state-run Petroecuador primarily) who dumped close to 16 million gallons of oil and 20 billion gallons of petroleum waste into roughly 17,000 acres of pristine rainforest, had so despoiled the Oriente environment as to threaten the physical and cultural lives of the indigenous inhabitants of the area, in violation of their internationally as well as constitutionally guaranteed rights to life and health. Stated the Commission in its ruling, *id.* at 89:

The Commission recognizes that the right to development implies that each state has the freedom to exploit its natural resources, including through the granting of concessions and acceptance of international investment. However, the Commission considers that the absence of regulation, inappropriate regulation, or a lack of supervision in the application of extant norms may create serious problems with respect to the environment which translate into violations of human rights protected by the * * * American Convention on Human Rights [which] is premised on the principle that rights inhere in the individual simply by virtue of being human. Respect for the inherent dignity of the person is the principle which underlies the fundamental protections of the right to life and to preservation of physical well-being. Conditions of severe environmental pollution which may cause serious physical illness, impairment and suffering on the part of the local populace are inconsistent with the right to be respected as a human being. *See also supra* note 3; Lucy Mayhew, *Rights of Nature*, 253 RESURGENCE MAGAZINE 8 (2009).

¹³⁷ Acosta, *supra* note 95, citing Swiss jurist JÖRG LEIMBACHER, DIE RECHTE DER NATUR 27 (1988).

¹³⁸ For some of the details, see CULLINAN, *supra* note 20, at 178-91.

¹³⁹ World People’s Conference on Climate Change and the Rights of Mother Earth of the People’s World Movement for Mother Earth, at <http://pwccc.wordpress.com> (accessed June 25, 2011) (hereinafter “PWCCC”).

¹⁴⁰ *See* Remarks of H.E. Miguel D’Escoto Brockmann, President of the United Nations General Assembly at the Mother Earth Special Event (New York, Apr. 22, 2009), *transcript available at* www.un.org/esa/socdev/unpfii/documents/MEDSE_PGA_en.doc (accessed June 25, 2011).

¹⁴¹ PWCCC, at <http://pwccc.wordpress.com/2010/02/07/draft-universal-declaration-of-the-rights-of-mother-earth-2> (accessed June 25, 2011). For an updated version, see <http://climateandcapitalism.com/?p=2268> (accessed June 25,

Morales in 2010 succeeded in winning U.N. General Assembly approval of a resolution declaring April 22 International Mother Earth Day.¹⁴³ The resolution expressed the General Assembly's conviction that, to achieve a just balance among the socioeconomic and environmental needs of present and future generations, "it is necessary to promote harmony with nature and the Earth."¹⁴⁴

Significantly, these achievements—and implicitly the Pachamama Movement itself—won further General Assembly support in its February 2010 Resolution 64/196 on "Harmony and Nature," requesting the Secretary-General to submit a report on the same theme,¹⁴⁵ which he did in August 2010.¹⁴⁶ It also is noteworthy that Secretary-General Ban Ki-moon issued a Mother Earth Day 2010 statement declaring that "protecting the Earth must be an integral component of the strategy to achieve the MDGs [Millennium Development Goals¹⁴⁷] . . . that world leaders have pledged to try to achieve by 2015, along with other ambitious targets to halve poverty, hunger and disease."¹⁴⁸ While not legally enforceable, communications such as these can help garner the support that Nature's rights require to win widespread legal recognition.

Especially instructive in this regard is the proposed Universal Declaration of the Rights of Mother Earth that emanated from the People's Conference in Bolivia in 2008, since submitted to the U.N. General Assembly for consideration¹⁴⁹ and prelude to a new Ley de Derechos de La Madre Tierra (Law of Mother Earth) soon to be adopted.¹⁵⁰ Clearly drawing inspiration from, e.g., the 1948 Universal Declaration of Human Rights¹⁵¹ and the 2000 Earth Charter,¹⁵² it begins with an

2011); see also Cormac Cullinan, *The Universal Declaration of the Rights of Mother Earth: An Overview in Does NATURE HAVE RIGHTS? TRANSFORMING GRASSROOTS ORGANIZING TO PROTECT PEOPLE AND THE PLANET* (Council of Canadians, Fundacion Pachamama, and Global Exchange: 2011), available in draft form at <http://canadians.org/rightsofnature> (accessed June 25, 2011).

¹⁴² PWCCC, at <http://pwccc.wordpress.com/support> (accessed June 25, 2011).

¹⁴³ International Mother Earth Day, GA Res. 63/278, at 4, U.N. GAOR, 63d Sess., Supp. No. 49, vol. III, U.N. Doc. A/RES/63/49 (May 1, 2009), reprinted in V BASIC DOCUMENTS, *supra* note 13, at V.???.???

¹⁴⁴ *Id.*, prmb.

¹⁴⁵ Harmony with Nature, GA Res. 64/196, at 267, U.N. GAOR, 64th Sess., Supp. No. 49, vol. I, U.N. Doc. A/RES/64/49 (Feb. 12, 2010), reprinted in V BASIC DOCUMENTS, *supra* note 13, at V.???.???

¹⁴⁶ Report of the Secretary-General, *Harmony and Nature*, U.N. Doc. A/65/314 (Aug. 19, 2010).

¹⁴⁷ See United Nations Millennium Declaration, Sept. 8, 2000, GA Res. 55/2, U.N. GAOR, 55th Sess., Supp. No. 49, at 4, U.N. Doc A/55/49 (2000), reprinted in III BASIC DOCUMENTS, *supra* note 13, at III.V.5.

¹⁴⁸ See U.N. News Centre, *Safeguarding Earth Crucial to Development, Human Well-being, Ban Stresses*, at <http://www.un.org/apps/news/story.asp?NewsID=34445&Cr=&Cr1=> (accessed June 25, 2011).

¹⁴⁹ Submission by the Plurinational State of Bolivia to the AWG-LCA, *Additional views on which the Chair may draw in preparing text to facilitate negotiations among Parties, Submissions from Parties* (Apr. 30, 2010) FCCC/AWG/LCA/2010/MIS.

¹⁵⁰ See *Bolivia's Law Of Mother Earth Would Give Nature And Humans Equal Protection*, HUFFPOST GREEN, http://www.huffingtonpost.com/2011/04/13/bolivias-law-of-mother-earth_n_848966.html (accessed June 25, 2011); see also John Vidal, *Bolivia Enshrines Natural World's Rights with Equal Status for Mother Earth*, GUARDIAN.CO.UK, Sunday, Apr. 10, 2011, <http://www.guardian.co.uk/environment/2011/apr/10/bolivia-enshrines-natural-worlds-rights> (accessed June 25, 2011).

¹⁵¹ Universal Declaration of Human Rights (UDHR), G.A. Res. 217A, at 71, U.N. GAOR, 3d Sess., 1st plen. mtg., U.N. Doc. A/810 (Dec. 10, 1948), reprinted in III BASIC DOCUMENTS, *supra* note 13, at III.A.1.

acknowledgment that “[w]e, the peoples and nations of Earth . . . are all part of Mother Earth, an indivisible, living community of interrelated and interdependent beings with a common destiny.”¹⁵³ Thereafter, in Article 1(1), it asserts that “Mother Earth is a living being,” and in Article 2 specifies the “Inherent Rights of Mother Earth”:

- (1) Mother Earth and all beings of which she is composed have the following inherent rights:
 - (a) the right to life and to exist;
 - (b) the right to be respected;
 - (c) the right to regenerate its bio-capacity and to continue its vital cycles and processes free from human disruptions;
 - (d) the right to maintain its identity and integrity as a distinct, self-regulating and interrelated being;
 - (e) the right to water as a source of life;
 - (f) the right to clean air;
 - (g) the right to integral health;
 - (h) the right to be free from contamination, pollution and toxic or radioactive waste;
 - (i) the right to not have its genetic structure modified or disrupted in a manner that threatens its integrity or vital and healthy functioning;
 - (j) the right to full and prompt restoration of the violation of the rights recognized in this Declaration caused by human activities;
- (2) Each being has the right to a place and to play its role in Mother Earth for her harmonious functioning.
- (3) Every being has the right to wellbeing and to live free from torture or cruel treatment by human beings.

Thus does the Pachamama Movement seek to shift the anthropocentric rights paradigm of environmental protection. However, while its Mother Earth declaration does detail “Obligations of human beings to Mother Earth,”¹⁵⁴ it does not identify—perhaps intentionally—the mechanisms and procedures through which these obligations might be enforced. One can hope that, if the U.N. General Assembly does choose to endorse this revolutionary initiative, it will point the way to practicable, effective legal and social governance mechanisms, and to operational arrangements that may obtain at different levels of social governance.

It is, in any event, revealing that these developments have received scant attention in the Western media except as passing objects of bemused curiosity, even derision.¹⁵⁵ Perhaps this should

¹⁵² The Earth Charter, adopted at The Hague by the Earth Charter Commission, 29 June 2000. Available from the Earth Charter Commission at <http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html> (accessed June 25 2011).

¹⁵³ Universal Declaration of the Rights of Mother Earth, *supra* note 149, prmb. l.

¹⁵⁴ *Id.* art. 3.

¹⁵⁵ See, e.g., posting of Nita Still to Siskiyou Daily News, *Lies and Deceptions*, http://www.siskiyoudaily.com/opinions/letters_to_the_editor/x121482358/-Lies-and-deceptions (July 19, 2011, 9:01 am PST) (accessed July 22, 2011); Jonathan Wachtel, *U.N. Prepares to Debate Whether ‘Mother Earth’ Deserves Human Rights Status*, FOXNEWS.COM, <http://www.foxnews.com/world/2011/04/18/prepares-debate-rights-mother-earth> (Apr. 18, 2011) (accessed July 22, 2011).

be expected of a movement that seeks to pierce Western anthropocentric conceits of scientism, economics, and law and catalyze a great socioeconomic shift. Such shifts are rarely if ever popular at their outset.

Improbably enough, however, the most memorable modern-day plea for the “rights of Nature” idea came from a U.S. law professor, Christopher Stone of the University of Southern California, when, in 1972, he published his now iconic essay *Should Trees Have Standing?—Toward Legal Rights for Natural Objects*¹⁵⁶ in which he gave legal voice to Aldo Leopold’s “land ethic.”¹⁵⁷ By now, one would think, we should have gotten used to the idea, even engaged with it seriously. Stone pointed out how the law routinely transmutes the fictional into justiciable reality: “We have been making persons out of children although they were not, in law, always so. And we have done the same, albeit imperfectly some would say, with prisoners, aliens, women (especially of the married variety), the insane, Blacks, and Indians.”¹⁵⁸ The U.S. judiciary has even vested corporations with First Amendment rights.¹⁵⁹ Joint ventures, trusts, municipalities, ships, and other inanimate right-holders, too, have been endowed with legal personhood. But until now legal innovation to recognize the interests of Nature has never taken root. As Stone conceded, “[t]hroughout legal history, each successive extension of rights to some new entity has been . . . a bit unthinkable,”¹⁶⁰ adding that “[w]e are inclined to suppose the rightlessness of rightless ‘things’ to be a decree of Nature, not a legal convention acting in support of some status quo.”¹⁶¹

Still, Professor Stone’s idea that natural objects should have rights gave rise to U.S. Justice William O. Douglas’ spirited dissent in *Sierra Club v. Morton*.¹⁶² It also provoked skepticism, even disdain¹⁶³ and antipathy.¹⁶⁴ Today, however, Ecuador’s and Bolivia’s challenges to the world are

¹⁵⁶ 45 S. CAL. L. REV. 450 (1972); see also CHRISTOPHER D. STONE, *SHOULD TREES HAVE STANDING: AND OTHER ESSAYS ON LAW, MORALS AND THE ENVIRONMENT* (2010); Susan Emmenegger & Axel Tschentscher, *Taking Nature’s Rights Seriously: The Long Way to Biocentrism in Environmental Law*, 6 GEO. INT’L ENVTL L. REV. 545 (1994) (22 years after the publication of Stone’s essay).

¹⁵⁷ ALDO LEOPOLD, *A SAND COUNTY ALMANAC* 201-26 (1949/1981). Leopold wrote, at 224-25: “[T]he ‘key-log’ which must be moved to release the evolutionary process [of cultivating a land ethic] is simply this: quit thinking about decent land-use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise....The fallacy the economic determinists have tied around our collective neck, and which we now need to cast off, is the belief that economics determines *all* land use.. This is simply not true.”

¹⁵⁸ Stone, *supra* note 156 at 2.

¹⁵⁹ *Citizens United v. Federal Election Commission*, Case No. 08-205, 130 S.Ct. 876 (2010).

¹⁶⁰ Stone, *supra* note 156, at 2.

¹⁶¹ *Id.*

¹⁶² 405 U.S. 727, 741 (1972).

¹⁶³ See, for example, the derisive verse penned by attorney John M. Naff, Jr. under the title *Reflections on the Dissent of Douglas, J. in Sierra Club v. Morton*, 58 A.B.A.J. 820 (Aug. 1972):

If Justice Douglas has his way –
O Come not that dreadful day –
We’ll be sued by lakes and hills

causing even some well-placed lawyers and policymakers to see merit in Stone's argument. For example, President Obama's top science advisor, John Holdren recently described Stone's arguments as "tightly reasoned."¹⁶⁵ One may reasonably assume that this is due partly to the enormity and urgency of climate change and other large-scale environmental threats. But one can sense also not a little professional frustration with a system of environmental laws and regulations that "don't actually protect the environment" but, "at best . . ., merely slow the rate of its destruction."¹⁶⁶

These words were written by the Associate Director of the Community Environmental Legal Defense Fund (CELDF), a nongovernmental not-for-profit environmental law firm based in south-central Pennsylvania. CELDF has been helping communities across the United States develop and adopt "Rights of Nature" ordinances that put the power of legal protest into the hands of local citizens without their having to prove personal environmental harm to achieve standing.¹⁶⁷ It also has assisted delegates to the Ecuador Constitutional Assembly in re-writing that country's constitution, specifically in the drafting of the "Rights of Nature" language, drawing upon the "Rights of Nature" ordinances CELDF has promoted at home.¹⁶⁸

"[E]nvironmental protection cannot be attained," CELDF asserts on its website, "under a structure of law that treats natural communities and ecosystems as property."¹⁶⁹ This is a crude but

Seeking a redress of ills
 Great Mountain peaks of name prestigious
 Will suddenly become litigious
 Our brooks will babble in the courts,
 Seeking damages for torts
 How can I rest beneath a tree
 If it may soon be suing me?
 Or enjoy the playful porpoise
 While it's seeking habeas Corpus?
 Every beast within his paws
 Will clutch an order to show cause
 The Courts besieged on every hand,
 Will Crowd with suits by chunks of land.
 Ah! But vengeance will be sweet
 Since this must be a two-way street.
 I'll promptly sue my neighbour's tree
 For shedding all its leaves on me.

¹⁶⁴ Persons sympathetic to Stone's thesis, for example, are reported to have been identified as "radical," a McCarthy-style ploy well known to marginalize people and ideas. See, e.g., Christopher Neefus, *Obama's Science Adviser Endorsed Giving Trees Legal Standing to Sue in Court*, CNSNEWS.COM <http://www.cnsnews.com/node/51756>, (July 29, 2009) (accessed June 25, 2011).

¹⁶⁵ As quoted in Neefus, *supra* note 164. According to this source, Holdren supports Professor Stone's thesis and thus also the idea of Rights of Nature.

¹⁶⁶ Mari Margil, *Stories from the Environmental Frontier*, in *WILD LAW: A READER IN EARTH JURISPRUDENCE* (Peter Burdon, ed., forthcoming), as quoted in Peter Burdon, *The Rights of Nature: Reconsidered*, 49 AUSTL. HUMAN. REV. 69, 70 (2010).

¹⁶⁷ See CELDF's website at <http://www.celdf.org>. In particular, see the CELDF's April 2010 Draft Rights of Nature Ordinance at <http://www.celdf.org/-1-6> (each accessed June 25, 2011).

¹⁶⁸ See "Rights of Nature" page on CELDF's website, *supra* note 167.

¹⁶⁹ *Id.* at CELDF's "Rights of Nature," <http://www.celdf.org/rights-of-Nature> (accessed June 25, 2011). Says

essentially accurate judgment. Adds Peter Burdon, paraphrasing the CELDF website: “[B]y every measurable statistic, the environment is in worse condition today than thirty years ago when the first environmental protection law was passed.”¹⁷⁰ The growing appeal of CELDF’s work, nationally and transnationally, suggests a promising new vanguard for environmental advocacy that could ultimately transform environmental law.

Of course, for all the obvious reasons, this sort of initiative, national or international, does not of itself change the economic practices and cultural norms that are primarily to blame for the environmental predicament we are in. Local environmental ordinances are subservient to the “higher” laws of State and constitution, and national and even international environmental priorities are subservient to the “higher” interests of the Market and national security, as we have seen, for example, in the politics of the Kyoto Protocol, the UNFCCC’s COP 15 in Copenhagen, and COP 16 in Cancun.¹⁷¹ As Professor Stone correctly foresaw, the supposed theoretical barriers to change have deeper origins in powerful “psychic and socio-psychic aspects” that are not easily overcome.¹⁷²

3. Four Systemic Complications

Both the intergenerational and Nature’s rights approaches to environmental protection and sustainability have their own complexities, well beyond the psychic and socio-psychic ones. They necessarily raise fundamental questions of economic and political governance and moral philosophy. They also challenge the worldwide corporate-led, bigger-better-more value system within which most of us live (or, in the name of development, seek to live). Finally, society and lawyers have a quite natural tendency to treat the unfamiliar cautiously if not apprehensively.

This is not to say that these new approaches do not have significant issues with which they must contend, born of the official legal systems within which they live. Three procedural issues stand out. So also does a fourth issue, but arguably more substantive than procedural. We advert to questions concerning legal surrogacy, legal standing, uncertainty in determining future damage, and anthropocentrism.

Legal Surrogacy

The intergenerational rights and Nature’s rights approaches share equally unresolved questions concerning the threshold issue of qualified representation. Since each approach requires surrogates to represent their beneficiaries in order to function—future generations in the first instance, Mother Nature in the second—each therefore faces a host of representational issues that appear not to have been thoroughly or widely vetted so far: Should the surrogate be a “guardian” (as

CELDF’s Co-founder and Executive Director Thomas Linzey, quoting an unidentified source, “the only thing that environmental regulations regulate are environmentalists.” *Of Corporations Law, and Democracy: Claiming the Rights of Communities and Nature*, 25th Annual E. F. Schumacher Lecture, October 2005, Stockbridge, MA, <http://neweconomicsinstitute.org/publications/lectures/of-corporations-law-and-democracy> (accessed June 25, 2011).

¹⁷⁰ Burdon, *supra* note 166, at 72.

¹⁷¹ “UNFCCC” is the acronym for “United Nations Framework Convention on Climate Change.” The acronym “COP” is shorthand for “Conference of the Parties” to the 1992 Climate Change Convention.

¹⁷² Stone, *supra* note 156, at 7.

recommended vis-à-vis future generations in preparation for the 1992 UNCED conference in Rio¹⁷³) or would an “ombudsperson” or even an “everyman” model be more appropriate (each of them options under Article 3 of the Universal Declaration of the Rights of Mother Earth¹⁷⁴)? Who, in short, should serve in surrogate capacity? What kind of individual, institution, or agency, and with what geopolitical reach? How should the surrogate be selected? What background, training, and experience should the surrogate have? What obligations should the surrogate be required to fulfill and what functions should he, she, or it be expected to perform? For whom or what, exactly, should the surrogate be authorized to speak? What guidelines or standards of judgment should the surrogate be expected to follow, and who should author them in the first place? To whom should the surrogate account? And so forth.¹⁷⁵

None of these operational questions are easy. But neither are they insurmountable. Every legal system, certainly the most advanced, has had to wrangle with these and related issues every time they have had to deal with the rights and interests of women (alas, still necessary), children, unborn persons, the mentally retarded, and the elderly infirm, for example. The current statist legal framework notwithstanding, it is not unreasonable to believe that the world could handle these issues when its own sustainability is at stake.

Legal Standing

Even if surrogates for future generations and Mother Nature succeed at establishing their credentials, they run up against other, potentially insurmountable threshold criteria of justiciability. Prominent in this regard is the much-litigated doctrine of legal standing or *locus standi*, requiring a personal stake in the outcome of a case to bring suit and common to many legal systems in one form or another.¹⁷⁶ In *Lujan v. Defenders of Wildlife* (1992),¹⁷⁷ the U.S. Supreme Court articulated a highly restrictive three-part test to determine whether the “standing” requirement is met: plaintiffs must prove (a) actual personal injury, (b) fairly traceable to defendants’ alleged harmful acts, and (c) a likelihood of favorable redress—or face dismissal of their claims without consideration of their

¹⁷³ In anticipation of the 1992 U.N. Conference on Environment and Development Earth Summit in Rio (UNCED) and in furtherance of Principle 1 of the 1972 Stockholm Declaration (*supra* note 40) declaiming that “Man . . . has the solemn responsibility to protect and improve the environment for present and future generations,” the Maltese delegation submitted to the Preparatory Committee a proposal to institute a guardian officially to represent the interests of future generations. Except for the earnest musings of scholars, however, little if anything has been done in this regard in the the statist arena vis-à-vis future generations; nor in relation to Nature’s rights, it seems, except in Ecuador. But for scholarly work, see, for example, STONE, *supra* note 156, at ch. 5; see also CULLINAN, *supra* note 20; WESTON & BACH, *supra* note 22; and the scholars cited in notes 97-99, *supra*.

¹⁷⁴ *Supra* note 154. Article 3(2)(h) of the Mother Earth Declaration provides as follows: “Human beings, all States, and all public and private institutions to defend the rights of Mother Earth and of all beings . . .”

¹⁷⁵ For some conscientious answers to these kinds of representational questions, see Recommendation 10 (Adopt a Model Executive Order Establishing an Office of Legal Guardian for Future Generations and Provide for the Training and Certification of Legal Guardians, authored mostly by Carolyn Raffensperger) in WESTON & BACH, *supra* note 22, at 81.

¹⁷⁶ For helpful exploration of this and related doctrines without as well as within the United States, see, for example, CONSTITUTIONAL RIGHTS, *supra* note 47.

¹⁷⁷ 504 U.S. 555 (1992). For helpful elaboration and analysis, see Robin Kundis Craig, *Standing and Environmental Law: An Overview*, available on the Social Science Research Network (SSRN) website at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1536583 (accessed June 25, 2011).

merit.¹⁷⁸ The Nature's rights approach exempts surrogates from such traditional standing requirements because it measures claimed environmental damage not by human loss of use of an ecosystem but by harm done to the ecosystem itself, and thus presupposes or explicitly grants legal standing to those who would defend the environment—e.g., everyman under Ecuador's constitution,¹⁷⁹ generally residents in U.S. municipalities.¹⁸⁰

The intergenerational rights approach, however, does not have the same warrant, especially in free-market economies such as the United States. In the United States, it has much to do with the Article III “cases and controversies” clause of the U.S. Constitution which, over the years, the Supreme Court has interpreted to sharpen the adversarial nature of cases and to define the U.S. judiciary's boundaries within the separation of powers mandated by the Constitution.¹⁸¹ But as, for example, the post-*Lujan* case of *Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.*¹⁸² and the writings of qualified scholars¹⁸³ make clear, the doctrine of legal standing in environmental cases, like all legal norms, is subject to interpretation, and thus open to possible other influencing factors, and whether or not stated. In the intergenerational rights context, it is not unreasonable to wonder if legal standing decisions are not the consequence, at least in part, of an understandable bias favoring the property rights of presently living generations, or of general ignorance or misunderstanding of theories of intergenerational ecological justice¹⁸⁴ (perhaps because of the bias),

¹⁷⁸ Among many critiques of this and like U.S. decisions for being too restrictive, especially in environmental cases, see, for example, Robin Kundis Craig, *Removing the “Cloak of a Standing Inquiry”: Pollution Regulation, Public Health, and Private Risk in the Injury-in-Fact Analysis*, 29 CARDOZO L. REV. 149, 176–83 (2007); Neil Gormley, *Standing in the Way of Cooperation: Citizen Standing and Compliance with Environmental Agreements*, 16 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 397, 398 (2010); Sunstein, *supra* note 81.

¹⁷⁹ See *supra* note 132 and accompanying text.

¹⁸⁰ See, e.g., Section 7 of the April 2010 Draft Rights of Nature Ordinance of the Community Environmental Law Defense Fund (CELDF), *supra* note 167.

¹⁸¹ U.S. CONST., art. III, §2 provides: “The judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority—to all cases affecting ambassadors, other public ministers and consuls;—to all cases of admiralty and maritime jurisdiction;—to controversies to which the United States shall be a party;—to controversies between two or more states;—between a state and citizens of another state;—between citizens of different states;—between citizens of the same state claiming lands under grants of different states, and between a state, or the citizens thereof, and foreign states, citizens or subjects.” Addressing the meaning of “cases” and “controversies,” Chief Justice Earl Warren explained on behalf of the 8-1 majority in *Flast v. Cohen*, 392 U.S. 83, 95 (1968):

In part, those words limit the business of federal courts to questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process. And in part those words define the role assigned to the judiciary in a tripartite allocation of power to assure that the federal courts will not intrude into areas committed to the other branches of government. Justiciability is the term of art employed to give expression to this dual limitation placed upon federal courts by the “case and controversy” doctrine.

¹⁸² 528 U.S. 167 (2000).

¹⁸³ See, e.g., the scholars cited in note 178, *supra*; see also Justin R. Pidot, *Global Warming in the Courts: An Overview of Current Litigation and Common Legal Issues* 3–4 (Georgetown Envtl. Law & Policy Inst. 2006), http://www.law.georgetown.edu/gelpi/current_research/documents/GlobalWarmingLit_CourtsReport.pdf (accessed June 25, 2011); Joseph M. Stancati, *Victims of Climate Change and Their Standing to Sue: Why the Northern District of California Got it Right*, 38 CASE W. RES. J. INT'L L. 687, 704–06 (2006–07).

¹⁸⁴ For an attempt at enlightenment, see Weston (2012), *supra* note 99.

or both—but in either event inviting extra caution. When plaintiffs are members of future generations, the assumed complexities in dealing with an abstract group of individuals (if they be not persons under age 18) make this “standing” hurdle particularly challenging, as the very few known cases granting relief for intergenerational ecological harms would seem to affirm.¹⁸⁵

On the other hand, an alternative, favorable scenario within the formal or official legal framework is possible, even within market economies. “Australia, New Zealand, Germany, Japan, France, Israel, The Philippines, the U.K., and Sweden,” reports Professor Bach, “all provide examples of how different countries, with different legal systems, have inserted the rights of future generations into their governing law.”¹⁸⁶ Not to be overlooked either, although yet to gain real traction, is a “posterity” proposal within the U.S. constitutional system for a new and independent doctrine of “equitable standing” for future generations based on the U.S. Constitution’s Preamble: “We the People of the United States, in Order to form a more perfect Union, . . . to ourselves and our Posterity, do ordain . . .”¹⁸⁷

On final analysis, however, given the worldwide paucity of cases on the ecological rights of future generations, it is not likely that the courts will be proactive in this realm. More likely they will invoke another non-justiciability doctrine known in the United States as the “political question doctrine,” leaving it to the administrative and legislative branches to untangle the legal—and political—complexities involved.¹⁸⁸ And they probably will apply it to Nature’s rights as well, which, under this doctrine, will most likely not be exempted if and when challenged.¹⁸⁹ Still, future generations and Mother Nature are at Law’s gate, hoping that its gatekeepers are listening. At bottom it is a matter of moral/political values and choice.

Uncertainty of Future Damage

Assuming they have avoided or overcome the difficulties of surrogacy and legal standing, claimants espousing the ecological rights of future generations and Nature’s rights must, like all who seek redress for alleged environmental damage, demonstrate environmental loss in fact and extent. Often—in the case of intergenerational rights claims especially—this requires having to estimate and prove the likelihood that future damage will occur, at once or cumulatively over time. And in this setting, decision-makers in the present must account for the probabilistic nature of consequences in the future, which can be especially difficult to establish for events having long-term impact. The likelihood that a given cost or benefit will materialize in the future is affected both by scientific

¹⁸⁵ See cases cited in note 129, *supra*.

¹⁸⁶ Tracy Bach (Background Paper No. 7), *supra* note 98, at 17. For further evidence, see CONSTITUTIONAL RIGHTS, *supra* note 47.

¹⁸⁷ See John Edward Davidson, *Tomorrow’s Standing Today: How the Equitable Jurisdiction Clause of Article III, Section 2 Confers Standing upon Future Generations*, 28 COLUM. J. ENVTL. L. 185 (2003).

¹⁸⁸ See *Baker v. Carr*, 369 U.S. 186 (1962) (outlining the political question doctrine). *But see* James R. May, *Climate Change, Constitutional Consignment, and the Political Question Doctrine*, 85 DENV. U. L. REV. 919 (2008) (arguing that courts often misapply the political question doctrine in the context of environmental litigation).

¹⁸⁹ While legal standing poses an obstacle for the Nature’s Rights approach in the judiciary, it does not create the same difficulty for local legislative initiatives, which are gaining traction in municipalities like Pittsburgh, Pennsylvania, and over two dozen others. Rights of Nature FAQ, Community Environmental Legal Defense Fund, <http://celdf.org/rights-of-nation-faqs> (accessed Aug. 24, 2011).

uncertainty in projecting outcomes and by the possibility of unforeseen external influence. This difficulty is reflected in the aphorism, “a bird in the hand is worth two in the bush,” which economists have taken to heart with the mathematical tool of discounting, the practice of reducing future costs and benefits by a set percentage so that they can be compared with the immediate consequences of a decision.¹⁹⁰

A form of cost-benefit analysis, discounting has the effect of favoring short-term benefits at the expense of long-term costs. Such a trade-off is not only problematic for the future- damaged claimant, it often involves continued and widespread environmental degradation in exchange for temporary economic benefit. Not surprisingly, it works well for those who would champion corporate and state economic interests over individual and community environmental interests.

Discounting future environmental consequences has its own practical and moral difficulties.¹⁹¹ Economists often cannot agree on an accurate discount rate for a given problem, and “the precise discount value chosen can result in very different regulatory choices.”¹⁹² In addition, some question how a discount rate could be set to account for projected costs that are “catastrophic” and “irreversible,”¹⁹³ as in the case of climate change, for example. Arguably more important, however, discounting provokes an ethical question of fairness because its cost-benefit tradeoffs privilege present market interests over future nonmarket interests. Both the intergenerational rights claimant and the Nature’s rights claimant are disadvantaged by this supposedly neutral tool. As Cass Sunstein and Arden Rowell note with respect to the intergenerational rights claimant, but applicable to the Nature’s rights claimant as well, “the moral obligations of current generations should be uncoupled from the question of discounting, because neither discounting nor refusing to discount is an effective way of ensuring that those obligations are fulfilled. The moral issues should be investigated directly, and they should be disentangled from the practice of discounting.”¹⁹⁴ Accordingly, it may be argued, discounting is an inherently unsatisfactory tool for addressing the crucial and controversial issue of future damage uncertainty in environmental decision-making.¹⁹⁵

¹⁹⁰ The issue is complicated, as conveniently, briefly explained in WESTON & BACH, *supra* note 22, at 54:

Economists believe that benefits received in the future generally have less value than those received in the present, because people have a “positive pure time preference,” meaning that they prefer to receive benefits now rather than in the future. Economists also believe that because society will continue to become richer and consume more, benefits consumed now have greater marginal utility than those in the future, when any particular cost or benefit will constitute a smaller portion of society’s total wealth. In addition, economists highlight the “opportunity cost” of spending resources now rather than later. The cost of regulatory action now theoretically means forgoing the opportunity to invest the money instead, let it grow in value, and then have greater wealth with which to purchase benefits in the future.

¹⁹¹ See Joseph H. Guth, *Resolving the Paradoxes of Discounting*, in WESTON & BACH, *supra* note 22, Appendix A (CLI Background Paper No. 12).

¹⁹² WESTON & BACH, *supra* note 22, at 55.

¹⁹³ See FRANK ACKERMAN & LISA HEINZERLING, PRICELESS—ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING 185-86 (2004); THOMAS O. MCGARITY, SIDNEY SHAPIRO, & DAVID BOLLIER, SOPHISTICATED SABOTAGE: THE INTELLECTUAL GAMES USED TO SUBVERT RESPONSIBLE REGULATION (2004).

¹⁹⁴ Cass R. Sunstein & Arden Rowell, *On Discounting Regulatory Benefits: Risk, Money, and Intergenerational Equity*, 74 U. CHI. L. REV. 171, 199 (2007).

¹⁹⁵ For detailed overviews of the deficiencies of discounting, see WESTON & BACH, *supra* note 22, at 55-59, and Guth, *supra* note 191; see also ACKERMAN & HEINZERLING, *supra* note 192.

There are, thus, no easy formulae or techniques that will reduce the problem of uncertainty to an unambiguous mathematical calculus. The uncertainty-of-future-damage argument in the cloak of discounting is in reality a methodological subterfuge, a diversionary “straw man.”¹⁹⁶ Decision-makers should rely, rather, on meticulous investigation and analysis of future cost and benefits on a case-by-case basis, and strive to “relate environmental science with social values in the search for rational policies.”¹⁹⁷

Anthropocentrism

Ironically, critics have taken issue with the anthropocentrism that inheres in intergenerational rights and its absence in the case of Nature’s rights. But this is not, as one might therefore think, a “lose-lose” situation.

In the case of the intergenerational rights approach, the fundamental underlying concern is whether *any* human rights approach (intergenerational ecological rights included) can honor sufficiently the interdependence of human and non-human life as well as the importance of natural processes and ecosystems given that all human rights are by definition anthropocentric. This complaint is most commonly made by those who profess “deep ecology,” the philosophical outlook that has greatly influenced many green movements and activist organizations. But the concern is exaggerated, in our view. The anthropocentrism of intergenerational rights is scarcely egoistic at all, or in event far less human-centered than in the traditional human rights-based approach, focused as it largely is on persons unknown in potentially distant futures. Intergenerational rights is, at bottom, another way of thinking, talking, and acting on behalf of Mother Nature. It should not only be retained but, because of its strong moral pull, understood as one of the most conceptually cogent human rights approaches to environmental well-being currently available to us. It takes the long planetary view, not the all-too-familiar myopia of the self-indulgent present that has brought us such major environmental calamities as climate change and drastic species declines.

In the case of Nature’s rights, the fundamental and obvious fact is that it is a *non*-anthropocentric ecological right, not a *human* right. This of course provokes the question whether any human right to a clean and healthy environment (substantive ones in particular) is of any real necessity or utility at all. Does the Nature’s rights approach essentially mean the abandonment of human rights approaches to environmental protection and sustainability altogether? The answer to this question, for the reasons just mentioned, must certainly be “no” when it comes to the intergenerational rights approach. The same must be said of the more traditional derivative, autonomous, and procedural approaches to environmental human rights insofar as they prove ecologically wise and legally feasible. Now is not the time to abandon any human rights strategy that, even if only periodically, can break through the walls of resistance and benefit the environment.

But the answer to the question can also be in the negative when it comes to the Nature’s rights approach, provided that the right to environment in this setting is conceived in procedural terms—that is, as a human right *to represent* Mother Nature in the quest for a clean and healthy environment (not oneself or other members of the human species alone). Such a right is comparable

¹⁹⁶ For more on these issues, see MCGARITY, ET AL., *supra* note 192, especially at 67-102.

¹⁹⁷ BRYAN G. NORTON, SUSTAINABILITY: A PHILOSOPHY OF ADAPTIVE ECOSYSTEM MANAGEMENT xii (2005).

to the procedural environmental rights that people have—access to information, public participation in environmental decision-making, and recourse to just remedies—and that, in recent years, have been much lauded as part of an “expansive right to environment” in recent years.¹⁹⁸ To invoke a procedural human right to represent Mother Nature is not, we hasten to add, mere word play. It gives to the Nature’s rights approach a power that currently is not guaranteed by any legislative, administrative, or judicial modality anywhere, except, as previously noted, in Ecuador where it is enshrined in the country’s new constitution¹⁹⁹ and in Bolivia’s soon to be adopted “Law of Mother Earth”²⁰⁰ (a legislative step not yet taken in Ecuador despite its constitutional amendment²⁰¹). It is thus much needed. Contesting on human rights grounds unleashes the power, in theory at least, to assert maximum claims on society, juridically more elevated than commonplace “standards,” “laws,” or mere “policy choices” which, in contrast to “human rights,” are subject to everyday revision and rescission for lack of such ordination.²⁰²

This truth applies to the intergenerational rights approach as well. Indeed, despite their limitations, it applies to all approaches to the right to a clean and healthy environment, the traditional ones included. For all the hurdles that human rights approach to a clean, healthy, ecologically balanced and sustainable environment must surmount to succeed, it remains a powerful way—arguably *the* most powerful way—to achieve environmental (and social) well-being via legal process, or perhaps in any other way. No other approach challenges the official (public or private) status quo as human rights advocacy does (certainly no other that is readily accessible at the grass roots). And no other approach provides the gateway to a socially constructed paradigm of ecological governance based on principles of respect and collective responsibility, without which Planet Earth cannot survive.²⁰³ Human evolution is determined as much by socio-cultural beliefs and behaviors (memes) as it is of biological factors (genes). The inconvenient truth is that “smart growth, green buildings, hybrid vehicles, lifecycle analysis, internalizing the externalities, a triple bottom-line, [and other so-called] improvements in economic and technological efficiency” are alone insufficient.²⁰⁴ An alternative paradigm that recalibrates the law of humans with the laws of nature is required.

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¹⁹⁸ See *supra* text accompanying notes 58-65.

¹⁹⁹ See *supra* text accompanying notes 132-37.

²⁰⁰ See *supra* note 150.

²⁰¹ *Id.*

²⁰² For further discussion of the advantages of a human rights approach to ecological well-being, see *infra* Section III.C.

²⁰³ For elaboration on these themes, see *infra* Section III.C.3.

²⁰⁴ Paraphrasing and quoting William E. Rees, *Past the Tipping Point? The Coming Post-Sustainability World*, <http://globalecointegrity.net/pdf/samos/Rees.pdf> (accessed June 25, 2011).

C. Toward a “Copernican Revolution” in Ecological Governance

We arrive, then, at the following seven grand conclusions:

- Planet Earth and all who inhabit it are today confronted with a crisis unparalleled since the dinosaurs;
- The dominant economic, political, and legal institutions—and their norms and procedures—are principally responsible for this state of affairs, having not only failed to guard against this crisis, but contributed to it;
- A human rights approach to this dilemma has the potential like no other to help reverse these perilous arrangements in a manner that is beneficial to both nature and humankind;
- All obstacles notwithstanding, all manner of human rights approaches to a clean and healthy environment should therefore be utilized to the extent that the approaches are legally feasible and—especially important—ecologically sound (i.e., do not over-privilege the human as against non-human ecological interests);
- While traditional derivative and autonomous human-rights approaches to the right to environment, and expanded procedural human-rights approaches as well, should be pursued, the intergenerational rights and Nature’s rights approaches may be seen as preferable—provided the former strives to balance the human interest with Nature’s interest and the latter Nature’s interest with the human interest;
- The non-anthropocentric thrust of the intergenerational and Nature’s rights approaches (implicitly and explicitly, respectively) offer the best inherent capacity to ensure the short- and long-term interests of the natural world—and therefore also the best potential to challenge effectively the established governing order;
- This strategy advances an ecological governance framework premised on the belief that human beings are but temporary lessees on our “lonely planet,” therefore are duty-bound to ensure its continued vitality, diversity, and sustainability for the next tenants, and consequently rejects the notion, at every level from local to global, that the State and Market combination responsible for our ecological and consequent social devastation should have a monopoly on such governance.

Of course, barring some game-changing ecological disaster, huge economic and political forces will continue to resist these legal initiatives, especially the most innovative. This opposition is not just political, but historical and philosophical, and therefore has very deep roots.

Famed biologist E.O. Wilson takes a long view: “According to the archeological evidence,” he writes, “we strayed from Nature with the beginning of civilization roughly ten thousand years ago. That quantum leap beguiled us with an illusion of freedom from the world that had given us birth. . . .” He adds: “A wiser intelligence might now truthfully say of us at this point: here is a chimera, a new and very odd species come shambling into our universe, a mix of Stone Age emotion, medieval self-

image, and godlike technology.” He concludes: “The combination makes the species unresponsive to the forces that count most for its own long-term survival.”²⁰⁵

A more prosaic, shorter-range view is more common.²⁰⁶ Since the development of economics as an autonomous discipline in the 18th Century, the dominant wisdom has been that issues of distributive justice, in contrast to commutative justice,²⁰⁷ are not amenable to scientific or empirical measurement and therefore are best left to political, philosophical, and other dominions of values discourse. This credo first emerged, as previously noted, with the reductionist, quantitative, and individualistic thought that marked the Scientific Revolution and Reformation of the 16th and 17th centuries, and these ideas greatly influenced modern Western jurisprudence. To this day, that jurisprudence tends to perceive issues of distributive justice—e.g., socioeconomic and environmental rights—as a matter of politics to be dealt with, *if at all*, by the administrative and legislative institutions of government. This conviction is abundantly evident in the conservative-leaning rulings of the U.S. judiciary in recent years. Observes international and comparative law scholar Ugo Mattei:

The birth of the Welfare State in the early twentieth century was . . . considered as an *exceptional intervention* by regulation (by means of fiscal policy) into the market order, with the specific aim to guarantee some social justice to the weaker members of society. In the West, since then, social justice was never able to capture again the core of rights discourse, and consequently has remained constantly at the mercy of fiscal crisis: no money, no social rights!²⁰⁸

Ecological rights as social rights have befallen the same fate. Add to this environmental ignorance, the bewildering specialization and complexity of the natural sciences, and grossly inadequate science education in crucial societies, and it becomes clear why the task of righting our ecological (and social) wrongs, of ensuring a viable right to environment, and providing a more responsible form of ecological governance, can seem overwhelmingly difficult if not impossible.

But we cannot—must not—falter. It is not an option to blame antiquated forms of economics and ecological misthought (and consequent misdeed) which are perpetuated by the self-interests of the contemporary State and Market. What is needed is “a Copernican revolution in ethics”²⁰⁹—economic, political, legal, and otherwise—and a practical plan to deploy such ideas in the here and now. We are talking, dear reader, about saving the only planetary home we know. And in this regard we are at one with Professor Wilson: “We took a wrong turn when we launched the Neolithic revolution. We have been trying ever since to ascend *from Nature* instead of *to Nature*. It is

²⁰⁵ E. O. Wilson, *The Fate of Creation Is the Fate of Humanity*, in MORAL GROUND, *supra* note 105, at 21.

²⁰⁶ See, e.g., CULLINAN, *supra* note 20, at pt. 2; Ugo Mattei, *The State, the Market, and Some Preliminary Questions about the Commons*, http://works.bepress.com/ugo_mattei/40 (accessed June 25, 2011).

²⁰⁷ I.e., the fundamental fairness that is owed in all private agreements and exchanges between individuals and groups, especially in the conduct of business transactions.

²⁰⁸ Mattei, *supra* note 206, at 1 (English version) (emphasis added).

²⁰⁹ Kate Rawles, *A Copernican Revolution in Ethics*, in MORAL GROUND, *supra* note 108, at 88.

not too late for us to come around, without losing the quality of life already gained, in order to receive the deeply fulfilling beneficence of humanity's natural heritage.”²¹⁰

But there is no time to waste. The ultimate “tipping point,” the overwhelming majority of the climate scientists estimate, is but 40-50 years off—not even a lifetime for the majority of the world's current population. True, we do not know precisely how much and how fast our planet will heat up during this century. It is difficult to make exact predictions about how long greenhouse gas emissions will continue to increase and how exactly Earth's interdependent ecosystems will react to warmer temperatures. However, we do know that Earth's temperature has increased by 6°C in the last 100 years and that, barring major human intervention, it is destined to get dangerously warmer—from 2°C to 6°C—within the coming 50 years. And we know, too, what T. S. Eliot knew as long ago as 1939. “We are being made aware,” he wrote, “that the organization of society on the principle of private profit, as well as public destruction, is leading to both the deformation of humanity by unregulated industrialism, and to the exhaustion of natural resources, and that a good deal of our material progress is a progress for which succeeding generations may have to pay dearly.”²¹¹ It is already 72 years later.

We now turn, therefore, to the necessary task of trying to make up for lost time. In the ensuing sections, we explore several trends that already are pointing to a new paradigm of ecological governance (Section III); the history and rediscovery of the Commons as a compelling governance template (Section IV); and the imagining of a rights-based legal architecture that could support the Commons from the most local to most global precincts (Section V). We close with a Coda (Section VI) that suggests how we might get from “here” to “there.”

²¹⁰ Wilson, *supra* note 205, at 24-25.

²¹¹ T.S. Eliot, *The Idea of a Christian Society* page 62 (1940).

III. Making the Conceptual Transition to a New Paradigm

The future of the human right to a clean and healthy environment—indeed, the future of human rights law generally—cannot be considered in isolation from the larger realities of the contemporary domestic and international markets and public policies that support them. This is a key instruction of Section II. But if the right is to survive and flourish, neither can it be held hostage to the prevailing discourse (the logic and vocabulary we use to identify and analyze problems) that now limits—sometimes visibly but more often invisibly—not only the pathways to change but our very sense of the possible. If, as we urged in Section II, we are to actualize a flourishing right to environment that venerates all life on Earth now and in the future, we must upgrade our mental operating system from Neolithic to Anthropocene and strive imaginatively to re-frame it for a new set of normative and behavioral circumstances. We need to imagine how the right to environment might be re-contextualized in a world order based on the values that underwrite all human rights. Indeed, we need to imagine how we might actually build such an order.

It is our premise that human societies will not succeed in overcoming our myriad eco-crises through better “green” technology or economic reforms alone; we must pioneer new types of governance that allow and encourage people to move from anthropocentrism to biocentrism, to develop qualitatively different types of relationships with nature itself and with each other. An economics and supporting civic polity that valorizes growth and material development as the precondition for virtually everything else is, over the not-so-long run, a dead end—literally. Instead, we must cultivate a practical governance paradigm driven simultaneously by (a) a logic of respect for nature, sufficiency, interdependence, shared responsibility, and fairness; and (b) an ethic of integrated global and local citizenship that insists upon transparency and accountability in all environmental dealings—and for which must be constituted, akin to Article 28 of the Universal Declaration of Human Rights²¹² (“Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized”), an enabling *human right to commons- and rights-based ecological governance* defined by this logic and ethic.

Reframing the goals of contemporary economics and public policy is a good way to begin opening new vistas of possibility. Properly done, it can move us beyond the neoliberal State and Market alliance²¹³ that has shown itself, despite impressive success in boosting material output, incapable of meeting human needs in ecologically responsible, socially equitable ways. It is now clear

²¹² UDHR, *supra* note 151 **Error! Main Document Only..**

²¹³ For syntactical convenience, we oftentimes use the term “State/Market” to refer to the close symbiotic relationship between the State and Market in contemporary global governance. Each serves different roles and is formally separate from the other, but both are deeply committed to a shared political and economic agenda and to collaborating intimately to advance it. We do not mean to suggest that there are not significant variations in how the State and Market interact from one nation to another, but the general alliance between the two in promoting economic growth as an overriding goal is unmistakable.

that the present-day regulatory State cannot be reliably counted upon to halt the abuse of natural resources by markets.²¹⁴ It is an open secret that various industry lobbies have corrupted if not captured the legislative process; and that the regulatory apparatus, for all its necessary functions, is essentially incapable of fulfilling its statutory mandates, let alone pioneering new standards of environmental stewardship.²¹⁵ Further, regulation has become ever more insulated from citizen influence and accountability as scientific expertise and technical proceduralism have come to be more and more the exclusive determinants of who may credibly participate in the process.²¹⁶ Given the parameters of the administrative State and the neoliberal policy consensus, truly we have reached the limits of leadership and innovation within existing institutions and policy structures.

Without purporting to solve such deep structural problems, can we imagine new paradigms of ecological governance that might improve the management of natural systems while simultaneously advancing human rights? This essay seeks to do so with the full realization that many entrenched, unexamined premises about the future must be brought to light and challenged, and that the vision we are proposing is fragile and evolving. In introducing his once novel economic ideas, John Maynard Keynes warned: “The difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds.”²¹⁷ This is precisely the problem we face in overcoming some old and deeply engrained habits of thought and action to entertain a new, unfamiliar paradigm that conjoins a new economics, participatory/networked commons, and human rights—a new worldview whose logic, vocabulary, and inventory of relevant examples are still embryonic.

As it happens, however, a number of powerful trends—in economics, digital technology, and human rights—are converging in ways that can help us address this challenge. They are: (a) a search for new holistic economic frameworks resulting from the failure of neoliberal economics policy and practice to name and manage “value” in its broadest sense, especially ecologically; (b) new types of commons-based governance that are proliferating on the Internet, demonstrating practical

²¹⁴ See, e.g., EARTHJUSTICE, HISTORY OF REGULATORY FAILURE (January 2005), *available at* http://www.calecleanair.org/2008/files/Report%20HistoryOfDelay_Jan05.pdf (accessed May, 17, 2011), a brief timeline documenting the history of regulatory failures under the Clean Air Act since 1990.

²¹⁵ See, e.g., D. J. FIORINO, THE NEW ENVIRONMENTAL REGULATION (2006); Lynda L. Butler, State Environmental Programs: A Study in Political Influence and Regulatory Failure, 31 WM & MARY L. REV. 823 (1990); Howard Latin, Overview and Critique: Regulatory Failure, Administrative Incentives, and the New Clean Air Act, 21 ENVTL. LAW 1647 (1991).

²¹⁶ The regulatory process in this way discriminates against localism because local communities and citizen groups are likely to have few scientific or legal resources at their command. See, e.g., FRANK FISCHER, CITIZENS, EXPERTS AND THE ENVIRONMENT: THE POLITICS OF LOCAL KNOWLEDGE (2000). Fischer calls for “meaningful nonexpert involvement in policymaking” because it “can help solve complex social and environmental problems by contributing local contextual knowledge to the professionals’ expertise.” Among the examples he cites are “popular epidemiology” in the United States, a process in which lay persons gather statistics and other information and curate the knowledge (pp. 151-57); the Danish consensus conference, a “citizen’s tribunal” process that invites direct public participation on policy debates involving technological and environmental risk (pp. 234-41); and “participatory resource mapping” in Kerala, India, which actively enlisted citizens to become involved in local infrastructure planning (pp. 163-66).

²¹⁷ JOHN MAYNARD KEYNES, THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY vii (1935).

ways to honor and manage non-market value, including in environmental contexts; and (c) a re-imagining of human rights as a key dimension of socio-ecological governance and justice.

We believe that a new paradigm of *commons- and rights-based ecological governance* can build on the momentum of these secular trends. The separate strands of discourse that we now designate “the State,” “the economy,” “the environment,” and “human rights” usually in isolation from one another, beg to be reconstituted—remixed and reframed—into a new synthesis, a new integrated worldview and cultural ethic. A new paradigm of ecological governance—commons- and rights-based—that reconstitutes people’s relations with nature, introduces new types of property rights, and draws support from a new Commons sector (a constellation of commons in various realms) that shares governance with the State and Market on a peer-to-peer basis can do just that.²¹⁸

The rationale for State support of individual commons and the Commons sector is easily understood. Commons perform qualitatively different functions than either the State or Market, generating and managing value in different and important ways. They have special advantages in advancing ecological sustainability because they typically limit exploitation of finite natural resources, leverage local knowledge in managing them, and honor the intrinsic value and intergenerational sanctity of natural resources. Additionally, commons foster democratic participation, temper inequality, and, by reducing dependence on markets, help to meet basic human needs—core goals of any human rights agenda. By establishing the right infrastructure of policy and support, the State can partner with individual commons and the Commons sector to elicit considerable bottom-up creativity and energy at the local or cellular level while fostering greater moral and social legitimacy in governance.

Our basic argument is, thus, that commons governance or governance according to commons principles can do more for the well-being of ecosystems and the natural resources within them than can the State and Market alone—sometimes in ways that complement the State and Market, sometimes in ways that constructively displace them. On their own individually or as part of a new Commons sector, commons or commons-styled governance, can, with proper design and support, empower commoners (the general public or distinct communities) to manage ecological systems and resources themselves, in more decentralized, sustainable ways than can the regulatory State solely, and with a greater assurance than the Market provides that fundamental human rights and needs will be fulfilled. It also can help to sidestep the growth imperatives of capital- and debt-driven markets that are fueling so much ecological destruction. Because commons typically function at a more appropriate scale and location than centralized government, and therefore draw upon local knowledge, participation, and innovation they offer a more credible platform for advancing a clean,

²¹⁸ As we explain in Section V, *infra*, such a constellation, functioning in mutually supportive ways, could organize human energies and governance to serve different ends and check the excesses of both the State and Market. We call this the “Commons sector,” operating alongside the Public (State) and Private (Market) sectors. Social entrepreneur/businessman Peter Barnes was an early proponent of this concept. See PETER BARNES, WHO OWNS THE SKY? 125–32 (2002).

healthy, ecologically balanced, and sustainable environment and its attendant human rights than does the dominant neoliberal consensus.

The burden of this Section III is to begin this paradigm-shifting journey first by clarifying the “backstory” of the emerging trends in economics, digital technologies, and human rights that make a new commons/rights-based framework logically compelling and its timing propitious; second by explaining how the Vernacular Law of ecological commons can and must be seen as a serious instrument of progressive change in ecological governance; and third by proposing that all efforts to achieve a transformation in ecological governance for a planet and civilization desperately in need have the greatest chance of succeeding if they are understood and acted upon holistically, as part of a human rights strategy overall. We leave to Sections IV and V a full exposition of what, in a generic sense, a commons governance model or template could entail and what principles of law, institutional design, and social practice it would embody. In a concluding Section VI—a coda—we suggest how we might begin to actualize this vision via human rights advocacy.

A. Accelerating Trends that Point Toward a New Synthesis

1. The Search for Alternatives to Failed Neoliberal Economics and Policy

Neoliberal economics and policy merits our attention because this system, dedicated to the private capture of commodified value, is largely indifferent to non-market value except insofar as it may “blow back” to affect markets. Toxic spills become serious when they ruin someone else’s market, such as fisheries or tourism; or when a company’s negligent environmental performance spurs the public to criticize the corporate identity and brand, leading to lower sales and stock prices. But companies and markets, focused as they are on *exchange value*, have trouble recognizing *intrinsic value*, a fact that had a lot to do with the financial crisis of 2008 and that persists to this day.²¹⁹

It is a truism in our market-oriented society that price is the best indicator of value and that the free play of the Market provides the fairest way to maximize societal wealth and efficiently allocate it. Because the Market is presumed to be more efficient and fair than government, the default strategy for managing natural resources is to privatize and marketize them. Government steps in only when a demonstrable market failure is said to occur, and that is nearly always a politically contested issue. Price, moreover, is said to result from individuals freely determining what is valuable, not governments or other collective institutions. As Margaret Thatcher famously declared: “There is no such thing as society.”²²⁰ People are said to maximize their individual, rational

²¹⁹ Economic observer Yves Smith describes the fallacies of free-market theory; the embedded deceptions in “risk/return tradeoffs” used in assembling “efficient portfolios” of stocks; the investor predation caused by deregulation of financial markets; and the inevitable bubbles caused by willful miscalculations of risk. See YVES SMITH, *ECONNED: HOW UNENLIGHTENED SELF INTEREST UNDERMINED DEMOCRACY AND CORRUPTED CAPITALISM* (2010); see also GRETCHEN MORTENSEN & JOSHUA ROSNER, *RECKLESS ENDANGERMENT: HOW OUTSIZED AMBITION, GREED AND CORRUPTION LED TO ECONOMIC ARMAGEDDON* (2011), offering an authoritative account of the financial crisis.

²²⁰ Interview by Douglas Keay with Margaret Thatcher, former Prime Minister of the United Kingdom, in London, U.K. (Sept. 23, 1987), <http://www.margaretthatcher.org/document/106689> (accessed Aug. 1, 2011).

self-interests through the price system and market exchange; the collective good then naturally manifests itself through the Invisible Hand.

Guardians of the dominant economic order—politicians, policy elites, corporate leaders, bankers, investors—concede the periodic shortcomings of this governance template as executive misjudgments, scandals, scientific failures, and other shortcomings occur. But they nonetheless generally aver that the prevailing neoliberal system, if not the best achievable system, is “good enough,” particularly when compared to the alternatives of communism, socialism, or authoritarian rule.

And yet this system of market-based governance has proven catastrophic and clearly is unsustainable in an ecological sense.²²¹ Neither unfettered markets nor the regulatory State has been effective in abating or preventing major ecological disasters and deterioration over the past several generations.²²² The structural imperatives of economic growth are, in the meantime, testing the ecological limits of the planet’s ecosystems, as seen most vividly in the intensifying global warming crisis. The environmental transformations now occurring on Earth are unprecedented in geological history.²²³ The pervasive, systemic environmental harms will not be solved over the long term through “green technologies” and similar palliatives, if only because the socio-economic imperatives that are driving economic growth and the aggressive exploitation of nature will remain unchecked.²²⁴

To enhance the prospects for a truly viable right to environment, our challenge is to develop a worldview and governance system with a richer conception of value than that afforded by the neoliberal market narrative. The idea that private property rights, technological innovation, and market activity are the inexorable engines of progress and human development needs to be re-examined and re-contextualized. John Ruskin famously called the unmeasured, unintended harms

²²¹ Notable critiques include GÉRARD DUMÉNIL & DOMINIQUE LÉVY, *THE CRISIS OF NEOLIBERALISM* (2011); SMITH, *supra* note 219; DAVID HARVEY, *A BRIEF HISTORY OF NEOLIBERALISM* (2005).

²²² Accord, ORR, *supra* note 19; SPETH, *supra* note 18; *see also* Mary Cristina Wood, *Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part I): Ecological Realism and the Need for a Paradigm Shift*, 39 ENVTL LAW No. 1, at 43, §III (“The Failed Paradigm of Environmental Law”) (2009). Writes Wood, at 55: “The Modern environmental administrative state is geared almost entirely to the legalization of natural resource damage. In nearly every statutory scheme, the implementing agency has the authority—or discretion—to permit the very pollution or land destruction that the statutes were designed to prevent. Rather than using their delegated authority to protect crucial resources, nearly all agencies use their statutes as tools to affirmatively sanction destruction of resources by private interests. For example, two-thirds of the greenhouse gas pollution emitted in this country is pursuant to government-issued permits.”

²²³ J.R. MCNEILL, *SOMETHING NEW UNDER THE SUN: AN ENVIRONMENTAL HISTORY OF THE TWENTIETH-CENTURY WORLD* (2000); MCKIBBEN, *supra* note 8.

²²⁴ *See* Tadzion Mueller & Freider Otto Wolf, *Green New Deal: Dead End or Pathway Beyond Capitalism?*, 5 TURBULENCE 12, 12 (2010), *also available at* <http://turbulence.org.uk/turbulence-5/green-new-deal/> (accessed Aug. 1, 2011) (“the point about any kind of ‘green capitalism,’ Green New Deal or not, is that it does not resolve th[e] antagonism [between capitalism’s need for infinite growth and the planet’s finite resources].”)

caused by markets “illth.”²²⁵ In our times, markets are producing as much illth as wealth, yet the governance systems for anticipating and minimizing the creation of illth are clearly deficient.

One can analyze this problem from many perspectives, but at the most basic level we point to the inadequacies of the price system as an indicator of value. Although crudely functional in indicating scarcity value, price as a numerical information signal cannot communicate situational, qualitative knowledge that may be significant to human and ecological well-being.²²⁶ Price may not represent actual scarcity in instances where it is applied to “natural capital” because ecosystems behave in highly complex, dynamic and non-linear ways that are not fully understood. Price is an inadequate guide to the scarcity, also because it may be applied to ecosystem structures that behave over time spans that exceed normal human perception (not to mention that of public policy institutions!) and from which people cannot be easily excluded (such as the atmosphere or oceans). “If people cannot be prevented from using a resource,” writes ecological economist Joshua Farley, “they are unlikely to pay for its use, and the market will fail to produce or preserve appropriate amounts Markets systematically favor the conversion of ecosystem structure to economic production rather than its conservation for the provision of ecosystem services, even when the nonmonetary benefits of conservation outweigh the monetary benefits of conversion. Those who convert gain all the benefits of conversion but share the costs with the rest of the world.”²²⁷ This might be called the “tragedy of the market.” The price of honey does not reflect the value of complex interdependencies in ecosystems that support honeybees, for example, nor do prices communicate the actual value of lower-order organisms and natural dynamics that are essential to the vitality of a fishery or forest.

Price has trouble representing notions of value that are subtle, qualitative, long-term and complicated—which are precisely the attributes of natural systems. It has trouble taking account of *qualitatively different types of value on their own terms*, most notably the “carrying capacity” of natural systems and their inherent usage limits. Exchange value is the primary if not exclusive concern. This, in fact, is the grand narrative of conventional economics. Gross Domestic Product represents the sum total of all market activity, whether that activity is truly beneficial to society or not.²²⁸ By the

²²⁵ JOHN RUSKIN, UNTO THIS LAST: FOUR ESSAY ON THE FIRST PRINCIPLES OF POLITICAL ECONOMY 105 (1860).

²²⁶ Ecological economist Joshua Farley writes: “The classic example of this phenomenon is the diamond-water paradox—diamonds contribute little to human welfare, but are very expensive, whereas water is essential to life but is generally very inexpensive.” *The Role of Prices in Conserving Critical Natural Capital*, 22 CONSERVATION BIOLOGY, No. 6, 1399 (2008). For example, industrial agriculture has promoted vast monocultures of crops in near-disregard of the local ecosystem, thanks to the generous use of synthetic fertilizers, pesticides, herbicides, and genetically modified seeds, often made possible by governmental subsidy. The transformation of farming practices to suit investment objectives, however, has degraded the long-term natural abundance of ecosystems and boosted the prevalence of pests, weeds, and pathogens.

²²⁷ *Id.* at 1402.

²²⁸ Clifford Cobb, et al., *If the GDP is Up, Why is America So Down?* THE ATLANTIC MONTHLY, 59 (Oct. 1995), also available at <http://www.theatlantic.com/past/politics/ecbig/gdp.htm> (accessed Aug. 1, 2011). In recent years, a growing recognition of the inadequacies of GNP as an index of “progress” has stimulated such initiatives as Bhutan’s Gross National Happiness (GNH) Index at <http://www.grossnationalhappiness.com> (accessed July 22, 2011); the German Bundestag Commission on “Growth, Prosperity, Quality of Life”; and French President Nicolas Sarkozy’s Commission

terms of “the economy,” the disasters of the Gulf of Mexico oil spill and the Fukushima nuclear disaster may actually turn out to be “good” because they unexpectedly end up stimulating economic activity.

Conversely, anything that does not have a price and exists “outside” the market is regarded as without value. In copyright law, for example, anything in the public domain is seen by copyright lawyers as essentially worthless. If a work in the public domain were so valuable, it would have a price, after all.²²⁹ To imperial nations, lands occupied by natives traditionally have been seen as *res nullius*—ownerless spaces that remain barren until the alchemy of the Market and “Development” create value.²³⁰ By this same reasoning, an ecological resource such as the earth’s atmosphere, wetlands in their original state, and even human and non-human genes (i.e., without assigned property rights or market price) are regarded as “not valuable”—or “free for the taking.”²³¹

It should not be surprising, then, that normal Market activity frequently rides roughshod over ecological values. The resulting harm usually is presumed to be modest or tolerable, or at least not the direct concern of business. Indeed, economists consider the unintended by-products of Market activity to be “externalities,” as if they were a peripheral concern or afterthought. And in truth, it is easy to overlook externalities because they tend to be diffused among many people and large geographic areas, and to lurk on the frontiers of scientific knowledge.

Externalities are marginalized, as well, because the consensus mission of government in any case is to promote “development” through constant economic growth. Conscientious and aggressive government attempts to minimize externalities are seen as interfering with this goal.²³²

on the Measurement of Economic Performance and Social Progress. For details, see Eyal Press, *Beyond GDP*, THE NATION, May 2, 2011, at 24-26.

²²⁹ See DAVID BOLLIER, *VIRAL SPIRAL: HOW THE COMMONERS BUILT A DIGITAL REPUBLIC OF THEIR OWN* ch. 2 (“The Discovery of the Public Domain”) (2009); see also David Lange, *Recognizing the Public Domain*, L. & CONTEMP. PROBS. 44 (Autumn 1981).

²³⁰ See, e.g., JOHN LOCKE, *SECOND TREATISE OF GOVERNMENT*, reprinted in *THE SELECTED POLITICAL WRITINGS OF JOHN LOCKE* 32 (Paul E. Sigmund ed., 2005) (“let [man] plant in some inland, vacant places of America, we shall find that the possessions he could make himself, upon the measures we have given, would not . . . prejudice the rest of mankind.”)

²³¹ The lack of formal property rights, and the failure to recognize customary lands as commons, is a major reason why “people’s common lands are frequently deemed to be unowned or unownable, vacant, or unutilized, and therefore available for reallocation,” writes Liz Alden Wily, a specialist in land tenure policies and author of the report, *The Tragedy of Public Lands: The Fate of the Commons Under Global Commercial Pressure* viii (Int’l Land Coalition, Jan. 2011). Wily also notes, at vii: “While all 8.54 billion hectares of commons around the world may be presumed to be the property of rural communities under customary norms, this is not endorsed in national statutory laws.”

²³² See, e.g., MILTON FRIEDMAN & ROSE FRIEDMAN, *FREE TO CHOOSE* 54–55 (1980) (“Wherever the state undertakes to control in detail the economic activities of its citizens, wherever, that is, detailed central economic planning reigns, there ordinary citizens are in political fetters, have a low standard of living, and have little power to control their own destiny.”). Keeping externalities to some minimally acceptable level is necessary also to assure trust and stability in markets over the long term, which is an investor priority. In practice, however, business interests tend to focus on short-term priorities over such long-term speculative risks whose potential costs they would not likely bear.

Nature, labor, knowledge, and time are not accorded independent, intrinsic value but, rather, are regarded as raw inputs for the vast societal apparatus known as “the economy,” whose primary engine today is the corporation. This is the essence of conventional governance, a system oriented toward fostering private property rights, technological innovation, and market exchange as the primary basis for solving myriad societal issues while enriching investors.

In the pantheon of economics and public policy, then, non-market value tends to recede into the shadows. Such realms as ecosystems, community, and culture are essentially *res nullius* from the value orientation of markets because they are not encased in property rights and traded in the market. They are therefore to be ministered to through ingenious extensions of market activity, the better to confer value . . . but they have relatively modest standing on their own as repositories of value. Enterprising social scientists, mindful of the esteemed categories of Market discourse, have tried to ameliorate this situation by recasting social communities as “social capital” and ecosystems as “natural capital.” Current crusades for “green technologies” and a “green economy,” too, in effect subordinate nature as a realm of intrinsic value so that it can be incorporated into the existing Market economy and its growth imperatives.

This has been a recurrent problem of the environmental movement: how to foster and institutionalize the “land ethic” that Aldo Leopold famously wrote about in 1949.²³³ So long as the intrinsic value of nature is not recognized, ecological harm is likely to fester until the harms metastasize and become utterly undeniable, or until victims or environmentalists succeed in elevating them into political or legal controversies. Government has shown a limited capacity to anticipate and intervene to prevent future harms. And where federal regulators may have the statutory authority, they are less likely to have the political clout to displease Congress and “interfere” with markets, whose decisions are seen presumptively as legitimate.²³⁴ This helps explain why some xx,000 chemicals are sold on the Market without independent pre-Market testing for health effects;²³⁵ why no regulatory scheme has been devised for nanotechnology despite warnings raised about it;²³⁶ why the regulatory apparatus for deep-water oil drilling remains much the same as before

²³³ *Supra* note 157.

²³⁴ *See, e.g.*, authorities cited in *supra* note 193.

²³⁵ Mark Schaefer, *Children and Toxic Substances: Confronting a Major Public Health Challenge*, 102 ENVTL HEALTH PERSP. SUPP. 2, 155, 155 (June 1994): “Today, there are more than 70,000 chemicals in commerce in the United States, and little is known about their toxicological properties, despite the availability of high-quality, well-validated, toxicological testing methodologies.” Over 1000 new chemicals are introduced into the market each year, and information on the toxicological properties of all but a few of them is minimal or nonexistent. *Id.* at 156.

²³⁶ *See* ETC GROUP, THE BIG DOWNTURN? NANOGEOPOLITICS 16 (Feb. 10, 2011), http://www.etcgroup.org/upload/publication/pdf_file/nano_big4web.pdf (accessed Aug. 14, 2011); Rick Weiss, *Nanotechnology Regulation Needed, Critics Say*, WASHINGTONPOST.COM, Dec. 5, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/12/04/AR2005120400729.html> (accessed Aug. 14, 2011).

the BP Gulf of Mexico oil “spill”;²³⁷ and why little action has been taken to address global warming despite scientific warnings raised over three decades ago.²³⁸

The point is that the Market fundamentalism of our time is about enacting a distinct cultural episteme. It is an intellectual worldview that promises to generate wealth and progress by assigning private property rights to nature, culture, and life itself. The problem with this default mode of governance is not just its selective priorities, but its totalizing tendencies. It is incapable of imposing limits on its own logic. The results can be seen in the patenting of genes, seeds, and other lifeforms; the trademarking of sounds, smells and common words; and the selling of corporate “naming rights” to sports arenas, subway stations, and other civic facilities. Everything is for sale, little remains inalienable.

As such examples suggest, the Market ethic of modern industrial societies rarely stays confined to the marketplace; it permeates other realms of life and institutions as a cultural force in its own right, crowding out other forms of value-creation. A body of social psychology experiments has shown, for example, that people who are paid to perform certain tasks tend to do only minimally acceptable jobs, especially if they perceive the pay to be inadequate— compared to those who are offered no money and then proceed to “do their best” and help each other.²³⁹ Individuals cast in social isolation are likely to place a different value on goods than individuals who see themselves as part of a larger group.²⁴⁰

This paradox has also been demonstrated by British sociologist Richard Titmuss who documented that blood banks that buy blood (often from alcoholics and drug users) tend to acquire lower-quality supplies than blood banks that solicit from volunteers (who are more likely to have

²³⁷ See Jason Leopold, *BP Still Being Awarded Lucrative Contracts*, TRUTHOUT.ORG, Apr. 20, 2011, <http://www.truthout.org/bp-still-being-awarded-lucrative-government-contracts> (accessed July 22, 2011). Writes Leopold: “BP continues to receive tens of millions of dollars in government contracts, despite the fact that the British oil company is under federal criminal investigation over the disaster in the Gulf of Mexico and twice violated its probation late last year.”

²³⁸ See Bill McKibben, *The Race Against Warming*, WASHINGTONPOST.COM, Sept. 29, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/09/28/AR2007092801400.html?sub=AR> (accessed Aug. 20, 2011); ———, *Climate of Denial*, MOTHER JONES, May/June 2005, also available at <http://motherjones.com/politics/2005/05/climate-denial> (Aug. 1, 2011) (accessed Aug. 20, 2011) (“The rest of the developed world took Kyoto seriously; in the eight years since then, the Europeans and the Japanese have begun to lay the foundation for rapid and genuine progress toward the initial treaty goal of cutting carbon emissions to a level 5 to 10 percent below what it was in 1990. . . . In Washington, however, the [industry] lobbyists did get things ‘under control.’ Eight years after Kyoto, Big Oil and Big Coal remain in complete and unchallenged power. Around the country, according to industry analysts, 68 new coal-fired power plants are in various stages of planning. Detroit makes cars that burn more fuel, on average, than at any time in the last two decades.”)

²³⁹ K.D. Vohs, et al., *The Psychological Consequences of Money*, 314 SCIENCE 1154 (2006).

²⁴⁰ See MARK SAGOFF, *THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT* (1988); see also M.A. Wilson & R.B. Howarth, *Discourse-based Valuation of Ecosystem Services: Establishing Fair Outcomes Through Group Deliberation*, 41 ECOLOGICAL ECON. 431 (2002).

high-minded motives).²⁴¹ The introduction of money and market exchange can skew an individual's perceptions of the operative social order and how he or she chooses to relate to it. As we will see in Section V, this has significant implications for the governance frames that may best deal with managing nature. While there certainly may be a role for market-oriented solutions, governance institutions must somehow promote an ethic that honors non-market engagement and ideals as well (e.g., vernacular deliberation, voluntary social collaboration, long-term stewardship). In their current incarnation, however, our neoliberal Market regime and its partner, the State, are ill-equipped to foster these values.

That is why economists and others are now questioning neoliberal capitalism anew, and why we argue for envisioning a different system of governance, one that enshrines a more benign, richer, and constructive notion of *value*, especially as it pertains to the environment. The standard Market narrative for how value is generated and diffused (rational, self-interested individuals making free exchanges in free markets, ineluctably yielding the public good) fails to take account of other animating realities of life: the rich spectrum of human motivations and behaviors that lie beyond *homo economicus*; the influential role of cooperation in generating value; and the many moral, social, cultural and environmental factors that are necessary to generate wealth. It is a narrative of value that is epistemologically and functionally deficient. It needs to be re-imagined.²⁴²

A positive development since the financial crisis in 2008 has been the surge of many innovative schools of economic thought seeking to expand basic notions of “the economy” and “value.” These new approaches include complexity theory economics, especially as set forth by the Santa Fe Institute;²⁴³ behavioral economists who study empirical social and personal behaviors;²⁴⁴ neuroeconomics, which studies how evolution has shaped human propensities to cooperate and compete;²⁴⁵ the Solidarity Economy movement that is focused on building working projects and policies based on cooperation;²⁴⁶ the “degrowth” movement that seeks to find the means to arrest

²⁴¹ RICHARD M. TITMUS, *THE GIFT RELATIONSHIP: FROM HUMAN BLOOD TO SOCIAL POLICY* (1971).

²⁴² For an insightful overview of the impressive literature on cooperation and altruism—as studied by economists, social scientists, evolutionary scientists, and others—and the lessons being taught by Internet-based commons, see YOCHAI BENKLER, *THE PENGUIN AND THE LEVIATHAN: HOW COOPERATION TRIUMPHS OVER SELF-INTEREST* (2011). Another important recent account of cooperation, by a leading expert on evolution and game theory, is MARTIN A. NOWAK, *SUPER COOPERATORS: ALTRUISM, EVOLUTION AND WHY WE NEED EACH OTHER TO SUCCEED* (2010).

²⁴³ See Santa Fe Institute, <http://www.santafe.edu> (accessed Aug. 2, 2011); ERIC D. BEINHOCKER, *THE ORIGIN OF WEALTH: EVOLUTION, COMPLEXITY AND THE RADICAL REMAKING OF ECONOMICS* (2006); JOHN H. MILLER, *COMPLEX ADAPTATIVE SYSTEMS: AN INTRODUCTION TO COMPUTATIONAL MODELS OF SOCIAL LIFE* (2007).

²⁴⁴ Behavioral economics examines the role of irrationality, cognitive biases, and other emotional filters that complicate or refute the classical paradigm of rational individuals seeking maximum economic utility through Market transactions. See generally Colin F. Camerer & George Loewenstein, *Behavioral Economics: Past, Present, and Future*, in *ADVANCES IN BEHAVIORAL ECONOMICS* 3 (Colin F. Camerer et al. eds., 2004).

²⁴⁵ See, e.g., *Neuroeconomics*, <https://secure.wikimedia.org/wikipedia/en/wiki/Neuroeconomics> (accessed July 22, 2011).

²⁴⁶ See JENNA ALLARD, ET AL., *SOLIDARITY ECONOMY: BUILDING ALTERNATIVES FOR PEOPLE AND PLANET: PAPERS AND REPORTS FROM THE U.S. SOCIAL FORUM 2007* (2008).

heedless economic growth,²⁴⁷ and a diverse array of ecological economists who are trying to force conventional economics to take account of ecological realities.²⁴⁸

Although their approaches vary a great deal, most of these schools of thought or political movements want to change the scope and character of property rights; re-think the economic and social institutions and policies for managing resources; leverage local knowledge and participation in the stewardship of resources; and make more holistic, long-term cost-accounting of our uses of nature. In their different ways, these venturesome thinkers and activists are struggling to escape the gravitational pull of an economic paradigm based on the social norms, political frameworks and scientific metaphysics of the 18th Century.

At this writing, we have neither the space nor time to probe more deeply into these insurgent approaches to economics and governance. But it is worth noting that many of them seek to understand the premises and logic of human social structures and economic behaviors at a very basic level. They question, for example, the validity of certain binary oppositions such as “self interest” versus “altruism,” and “private interests” versus “public interest.” They point out that such dualisms tend to lock us into prescriptive frameworks for understanding how institutions and policies can address problems. If we can escape these rigid axes of thought, and consider a different framework—one that sanctions new ways of seeing, being, and knowing—we might begin to get beyond the dominant knowledge system and its taxonomy of order. We just might be able to imagine a fresh synthesis for ecological governance.²⁴⁹

2. New Governance Models on the Internet

As it happens, new types of self-organized, distributed intelligence on the Internet offer some highly suggestive if not practical governance models that can guide our explorations. Open digital platforms are providing new ways of seeing, being, and producing. They are leveraging people’s natural social inclinations to create, share, and collaborate, resulting in new sorts of collective, non-monetized cultural, intangible wealth. Many of these models are based on the

²⁴⁷ See Conference Proceedings, Second International Conference on Economic Degrowth for Ecological Sustainability and Social Equity, Barcelona, Spain, March 26-29, 2010, <http://www.degrowth.org/Proceedings-new.122.0.html> (accessed July 25, 2011); see also RICHARD HEINBERG, *THE END OF GROWTH: ADAPTING TO OUR NEW ECONOMIC REALITY* (2011).

²⁴⁸ See, e.g., MICHAEL COMMON & SIGRID STAGL, *ECOLOGICAL ECONOMICS: AN INTRODUCTION* (2005); ROBERT COSTANZA ET AL., *AN INTRODUCTION TO ECOLOGICAL ECONOMICS* (1997); NATURE’S SERVICES: SOCIETAL DEPENDENCE ON NATURAL ECOSYSTEMS (Gretchen C. Daly ed., 1997).

²⁴⁹ See Marianne Maeckelbergh, *The Practice of Unknowing*, STIR (U.K.), Mar. 27, 2011, <https://stirtoaction.wordpress.com/2011/03/27/the-practice-of-unknowing> (accessed July 22, 2011). Maeckelbergh surveys “alternative approaches to ‘knowing’ that I have encountered through activism and anthropological fieldwork within the alterglobalization movement.” She concludes that the movements challenging multilateral organizations such as the WTO, the WB/IMF, and the G8/G20, are essentially challenging a “monoculture of knowledge” that de-legitimizes other ways of knowing and being. These alternative ways of knowing are based on the conviction that “knowledge is collectively constructed”; that “knowledge is context specific, partial and provisional”; and that “a distinction must be made between knowing something and knowing better. . . . At heart of the struggle for self-determination, then, ‘is a micro-politics for the production of local knowledge . . . This micro-politics consists of practices of mixing, re-using, and re-combining of knowledge and information.’”

commons paradigm, meaning that members of a commons sustainably manage a shared resource for the equitable benefit of their collectivity. Commons models generally embody a different type of social order than those fostered by property rights and market exchange. i.e., impersonal, transactional, self-servingly rational, money-based. They instead foster modes of social interaction and production that are more personal, relational, group-oriented, and value-based (i.e., non-monetary). The community itself negotiates (and sometimes fights over) both the “constitutional rules” of the community as well as the operational rules governing access, use and oversight of a resource. Notable examples in the digital realm include free and open source software communities such as GNU/Linux, wikis such as Wikipedia and its scores of cousins (i.e., server software programs that allow users to create and edit shared web pages freely), thousands of open-access scholarly journals, and the many open educational resource peer-production communities.²⁵⁰

We will explore a fuller range of commons in Section IV, but here we wish to call attention to the ways in which the Internet is incubating a very different type of economics and governance, one that recognizes the human propensity to cooperate and the right of everyone to participate in managing shared resources.²⁵¹ The “social Web,” often known as Web 2.0, is starting to surmount the deficiencies of the price system. It is doing so by lowering the coordination and transaction costs among people, such that social communities can interact in ways that markets would not find profitable. “Precisely because a commons is open and not organized to maximize profit, its members are often willing to experiment and innovate,” writes David Bollier in his book *Viral Spiral*: “New ideas can emerge from the periphery. Value is created through a process that honors individual self-selection for tasks, passionate engagement, serendipitous discovery, experimental creativity and peer-based recognition of achievement A commons based on relationships of

²⁵⁰ There is a large literature on these different types of digital commons, but some landmark examples include YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* (2006); SAMIR CHOPRA & SCOTT D. DEXTER, *DECODING LIBERATION: THE PROMISE OF FREE AND OPEN SOURCE SOFTWARE* (2008); CHRISTOPHER M. KELTY, *TWO BITS: THE CULTURAL SIGNIFICANCE OF FREE SOFTWARE* (2008); MATHIEU O’NEIL, *CYBER CHIEFS: AUTONOMY AND AUTHORITY IN ONLINE TRIBES* (2009); JOHN WILLINSKY, *THE ACCESS PRINCIPLE: THE CASE FOR OPEN ACCESS TO RESEARCH AND SCHOLARSHIP* (2006); and JONATHAN ZITTRAIN, *THE FUTURE OF THE INTERNET AND HOW TO STOP IT* (2008), especially ch. 6 (“The Lessons of Wikipedia”), at 127.

²⁵¹ A skeptic might say that the new digital commons can flourish only because the resources they manage are non-rivalrous, infinite resources like knowledge and culture. They therefore don’t “run out” in the way that forests or fisheries do, and so the political conflicts over limited resources do not exist, or only in different ways. Digital commons are also easier to establish because they do not need to displace entrenched “legacy institutions” that already manage the resources—which is the norm in most instances of managing ecological resources. In short, the politics and management challenges of digital commons are arguably easier than those of natural resource commons.

Notwithstanding these differences, it is becoming clear that the commons represents a compelling template of governance. And while there is a tendency to segregate “commons of nature” from “digital commons,” in truth the story is more complicated. The governance of code and information in “virtual spaces” is not disconnected from the “real world,” as many people presume. In fact, Internet-based software platforms are increasingly being used by self-organized communities to influence or manage physical resources and social behavior in the “real world.” Network-enabled governance models that honor participation, transparency, meritocratic leadership and accountability are blending the digital and physical worlds together. Online platforms are spurring major shifts in people’s attitudes toward “group process,” property rights and resource management

trust and reciprocity can undertake actions that a business organization requiring extreme control and predictable performance cannot.”²⁵²

As a socially based, distributed network (rather than a centrally controlled, market-driven network), the Internet makes it relatively easy for self-organized “peer production” to occur. On open Web platforms, people can enter into transactions based on a much richer universe of relational information than price alone. Indeed, their “transactions” need not be based on eking the maximum economic value from the other party. Profit need not be the prerequisite for a relationship or transaction. Two parties—or thousands!—can come together for casual and social reasons, and go on to self-organize enabling collaborative projects based on personal values and preferences, social reputation and affinities, geo-location and other contextual factors. Seller-driven, centrally organized markets, by contrast, would find it prohibitively expensive and cumbersome to identify, organize, and exploit such myriad, on-the-ground attributes: evidence of the structural limitations of conventional (pre-Internet) markets.²⁵³

However, for self-selecting individuals coming together on open platforms equipped with various software tools (reputation systems, information meta-tagging tools, etc.), it can be fairly easy to establish a rudimentary commons or peer production community. By aggregating and organizing vast quantities of personal and social data, Internet users can collectively develop new types of social organization and governance from the bottom up, as it were. The protesters in Egypt and other Middle Eastern countries, the “flash mobs” in South Korea who used mobile phones to organize demonstrations and Twitter users in Iran who did the same, the thousands of volunteers who have created Wikipedia—these are but a few examples of how vernacular participation and culture are giving rise to new types of social institutions that are more transparent and responsive than traditional institutions. Conventional markets often find themselves unable to compete with self-organized online social networks, or must somehow build business models “on top of” them.²⁵⁴

²⁵² BOLLIER, *supra* note 229, at 142.

²⁵³ There are many examples of self-organized markets that converge rapidly through online platforms. SourceForge is a website for programmers to affiliate with free software projects, some of which may involve payment; InnoCentive is an open “crowdsourcing” platform for soliciting and hiring experts for businesses that have specific research needs; Meetup.com is a platform for organizing in-person gatherings of people with shared interests. The point is that open network platforms can radically reduce the transaction costs of coordinating market-activity, which means that people do not necessarily have to work through organizational hierarchies in order to achieve important goals. Indeed, self-organized commons with lower coordination and transaction costs (and greater social appeal) often outperform conventional markets. For more, see DON TAPSCOTT AND ANTHONY D. WILLIAMS, *WIKINOMICS: HOW MASS COLLABORATION CHANGES EVERYTHING* (2006); David Bollier, *The Future of Work: What It Means for Individuals, Businesses and Governments* (Aspen Institute, 2011), http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/The_Future_of_Work.pdf (accessed July 25, 2011).

²⁵⁴ Indeed, the rise of network-based social organization—“netarchic,” in Michel Bauwens’ term, at http://p2pfoundation.net/Netarchical_Capitalism (accessed July 25, 2011)—poses a serious challenge for the “capitalist monetary economy,” writes sociologist Adam Arvidsson, because the latter cannot develop reliable ways of measuring and thereby controlling the value generated by the “ethical economy”—the social realm “coordinated by respect, peer-status, networks, friends and other forms of inter-personal recognition.” *Crisis of Value and the Ethical Economy*, http://p2pfoundation.net/Crisis_of_Value_and_the_Ethical_Economy (accessed July 22, 2011). There is a growing literature on “open business models.” Prominent examples include HENRY CHESBOROUGH, *OPEN BUSINESS*

Needless to say, this is a very different “social physics” (as tech analyst John Clippinger calls it²⁵⁵) than that of 20th Century institutional governance as embodied in centralized corporate and governmental bureaucracies. It is a type of bottom-up, participatory governance that devises its own institutional structures that are compatible with both the resources to be shared and the social norms of the collectivity.

The transformational potential of the Web 2.0 paradigm for “distributed governance” may be seen in the emerging field of digital currencies. Although we generally regard existing monetary systems administered by national governments and banks (“fiat currencies”) as natural facts of life, in fact they are political creations that determine how value is recognized and developed. Monopoly fiat currencies naturally flow among favored circuits of what constitutes value—e.g., activities that generate market profits—at the expense of communities of interest that have less access to the fiat currency. “The fundamental problem with our current monetary system,” writes currency expert Bernard Litaer, is that it is not sufficiently diverse, and as a result it dams and bottlenecks our creative energies, and keeps us trapped in a world of scarcity and suffering when we actually have the capacity to create a different reality by enabling our energies to move freely where they are most needed.”²⁵⁶ The Internet is helping address this problem by becoming a rich hosting environment for hundreds of global complementary currencies, business-to-business currencies, and community currencies. These money systems are diversifying and decentralizing the medium of money, and, in so doing, making it easier for communities to carry out economic exchanges that are important to them and form new sorts of social enterprises based on the currencies.²⁵⁷ Alternative money systems, writes Adam Arvidsson (a sociologist of networked culture), “can accomplish the coordination of scarce resources by means of media that are both disconnected from the global capitalist economy and thus oriented to alternative value flows, and that provide different protocols for action.”²⁵⁸

MODELS: HOW TO THRIVE IN THE NEW INNOVATION LANDSCAPE (2006); JOHN HAGEL III, ET AL., THE POWER OF PULL: HOW SMALL MOVES, SMARTLY MADE, CAN SET BIG THINGS IN MOTION (2010); ERIC VON HIPPEL, DEMOCRATIZING INNOVATION (2005), *also available at* <http://web.mit.edu/evhippel/www/democ1.htm> (accessed July 25, 2011); _____ THE COLLECTED PAPERS OF ERIC VON HIPPEL (2011), *also available at* <http://web.mit.edu/evhippel/www/papers.htm>.

²⁵⁵ See John Henry Clippinger, *Social Physics*, <http://www.jclippinger.com/social-physics> (accessed Aug. 28, 2011).

²⁵⁶ Bernard Litaer, *Currency Solutions for a Wiser World: Bird's Eye View*, <http://www.litaer.com/birdseyeview> (accessed Aug. 30, 2011). Litaer is a leading expert on alternative currencies, and is most noted for his book THE FUTURE OF MONEY: CREATING NEW WEALTH, WORK AND A WISER WORLD (2001).

²⁵⁷ Some of the more prominent alternative currencies include Bitcoin, Flattr, Ithaca Hours, Local Exchange Trading Systems, Metacurrency, Open Bank Project, and Time Banking. A chart comparing these and other alternative currencies can be seen at <http://socialcompare.com/en/comparison/alternative-currencies-monetary-systems> (accessed Aug. 30, 2011). For more on Bitcoin, arguably the most widely circulated digital currency today, see <http://www.bitcoin.org>, and Babbage blog, *Bits and Bob*, THE ECONOMIST, <http://www.economist.com/blogs/babbage/2011/06/virtual-currency> (accessed Aug. 30, 2011).

²⁵⁸ Arvidsson, *supra* note 254. Adam Arvidsson.

Our chief point here is to emphasize that the new ways of naming and managing value are enabling functional new forms of social organization and governance. This trend will intensify as more varieties of economic and social activity migrate online. One can easily imagine a new breed of institutional forms that blend digital and ecological concerns—i.e., the social and the biophysical—in more constructive ways. One can imagine collective decision-making that is more open, participatory, and transparent. One can imagine management that is more efficient and responsive because knowledge is more easily aggregated and made public, and therefore is subject to criticism and improvement (a less politically corruptible feedback loop than the back-corridors of legislatures). Governance that is more transparent and results-driven is also more likely to challenge the ideological posturing and “kabuki democracy” that now prevails in Washington, for example, further calling into question the latter’s moral and political legitimacy.

To be sure, human conflict and ideology are not going to disappear. We are not suggesting that complex choices will be resolvable through plebiscites, or that institutional leadership and resources are no longer needed. Many online commons have their own vexing “constitutional problems” and conflicts.²⁵⁹ The governance models of digital spaces are still very much a work-in-progress. Our knowledge about human beings and social structures, our economic institutions and technologies, and our very sense of identity and worldview, have changed profoundly over time. Suffice it to say that the new digital commons point to a new episteme of value and the prospect of building institutional structures that can identify with, and protect, a wide spectrum of non-market values.²⁶⁰

3. The Dawning Realization: That Ecological (and Human) Well-Being Requires Going Beyond State/Market Governance

Forward-looking segments of the environmental movement and its allies are coming to the stark realization that it is fruitless to expect that the State will provide the necessary leadership to save the planet. It is too indentured to Market interests and too institutionally incompetent to deal with the magnitude of so many distributed ecological problems. Evidence of this governance failure can be seen in the rapid decline of so many different ecosystem elements (atmosphere, biodiversity, desertification, glaciers, inland waterways and wetlands, oceans, coral reefs, etc.).

But what next, then? The regulatory State will continue to be the dominant governance system, of course, but for those willing to look in the right places—on the edges of mainstream environmental advocacy—seeds of the future are starting to sprout. An emerging universe of eclectic, innovative players are pioneering new sorts of direct-action, post-neoliberal environmental approaches. They have not reached a critical mass yet, nor even coalesced into new united fronts;

²⁵⁹ The governance difficulties of Wikipedia have been much-studied. *See, e.g.,* ANDREW LIH, *THE WIKIPEDIA REVOLUTION* (2009); ZITTRAIN, *supra* note 250; Mayo Fuster Morrel, *Governance of Online Creation Communities: Provision of Platforms of Participation for the Building of Digital Commons, Self-Provision Model: Social Forums Case Study*, Paper presented at CPR General Conference, Potsdam, Oct. 21, 2009, <http://internet-politics.cies.iscte.pt/IMG/pdf/ECPRPotsdamFuster.pdf> (accessed July 28, 2011). An overview of different governance regimes for digital communities can be seen in MATHIEU O’NEIL, *CYBER CHIEFS: AUTONOMY AND AUTHORITY IN ONLINE TRIBES* (2009).

²⁶⁰ *See* ZITTRAIN, *supra* note 250, which extensively discusses the “generativity” of online communities.

they have many different attitudes toward politics and policy; and many of them are culturally marginalized or ridiculed (as Rachel Carson was initially, in 1962). Yet the sheer size and diversity of new environmental advocacy, ranging well beyond traditional institutional advocacy and “green technology,” are impressive.

This much is certain: the current governance system for environmental issues is profoundly broken. There is an entire genre of books these days that can be characterized as “collapse” books,²⁶¹ and insider critiques of the U.S. environmental movement now find receptive audiences.²⁶² When environmental catastrophes such as the BP oil spill and the Fukushima nuclear plant disasters result in few significant changes in public policy, but a greater deal of PR spin, the public can be excused for regarding the State with cynicism. Substantive solutions seem more remote than ever.

It is significant that the European Commission, the Organization for Economic Cooperation and Development (OECD), and several national governments have implicitly admitted that the prevailing paradigm of economics and public policy is limited, if not flawed.²⁶³ Following the pioneering leadership of the Bhutan Government from the 1990s, Europeans have launched new projects to develop new measures of wealth and progress that go beyond Gross Domestic Product.²⁶⁴ “Beyond GDP” is a clearly a rear-guard action at this moment in history, however, as a number of cultural and environmental visionaries try to get beyond consumerism itself. Such critics as Diane Coyle, John de Graff, Stephanie Kaza, Thomas Princen, and Juliet Schor are staking out the ground for a new economics that does not rely upon goods and services as a proxy for happiness, and that entail different relationships with nature and social identities.²⁶⁵

Move beyond mainstream environmentalism and one can quickly find a wide range of thoughtful initiatives and experiments dedicated to rethinking economics, revitalizing local economies, rebuilding foods systems, building alternative businesses and cooperatives, and re-

²⁶¹ See, e.g., LESTER R. BROWN, *WORLD ON THE EDGE: HOW TO PREVENT ENVIRONMENTAL AND ECONOMIC COLLAPSE* (2011); DIAMOND, *supra* note 20; HANSEN, *supra* note 9; LOVELOCK, *supra* note 8; ROBERT L. NADEAU, *THE ENVIRONMENTAL ENDGAME: MAINSTREAM ECONOMICS, ECOLOGICAL DISASTER, AND HUMAN SURVIVAL* (2006); MCKIBBEN, *supra* note 8; ORR, *supra* note 19; SPETH, *supra* note 18.

²⁶² MICHAEL SHELLENBERGER & TED NORDHAUS, *THE DEATH OF ENVIRONMENTALISM: GLOBAL WARMING POLITICS IN A POST-ENVIRONMENTAL WORLD* (2004), also available at http://www.thebreakthrough.org/images/Death_of_Environmentalism.pdf (accessed July 25, 2011).

²⁶³ See *Beyond GDP* website at <http://www.beyond-gdp.eu> (accessed July 27, 2011), an initiative of the European Commission and several partners. The project acknowledges the need for non-market metrics of value because “investments only to a limited extent account for the gains and losses in natural, economic and social assets—which are important aspects from a *long-term* sustainable development perspective.” See also the authorities cited in *supra* note 228.

²⁶⁴ *Id.*

²⁶⁵ See DIANE COYLE, *THE ECONOMICS OF ENOUGH: HOW TO RUN THE ECONOMY AS IF THE FUTURE MATTERS* (2011); JOHN DE GRAFF, *AFFLUENZA: THE ALL-CONSUMING EPIDEMIC* (2005); STEPHANIE KAZA, *BUDDHIST WRITINGS ON GREED, DESIRE AND THE URGE TO CONSUME* (2005); THOMAS PRINCEN, *THE LOGIC OF SUFFICIENCY* (2005); JULIET SCHOR, *PLENTITUDE THE NEW ECONOMICS OF TRUE WEALTH* (2010).

imagining environmental advocacy. What most of these projects share is a conviction that any serious solutions must address the pathologies of the “growth economy.”

We already have mentioned, in Section II, efforts to secure legal standing for the ecological rights of future generations and to win recognition for “Nature’s rights,” even to the point of winning United Nations approval and potential endorsement. These initiatives advance the struggle for a new international consensus that will recognize substantive, ecologically sound principles of law and commercial practices. Such frame-shattering approaches are shared by the burgeoning alter-globalization movement, which has flourished following the Seattle protests of 1999. It has become a large transnational movement that challenges the basic logic of global capitalism and its inevitable market enclosures.²⁶⁶ The movement gained new adherents during the debt crises in Greece, Ireland, and Spain in 2011 when it became increasingly clear that the State/Market system was committed to salvaging itself at the expense of commoners.

Meanwhile, convinced that governments will fail to deal with the consequences of Peak Oil and climate change, scores of community groups in Canada, Ireland, the United Kingdom, and the United States, among other countries, have independently joined the “transition towns” movement. Their goal is to make their localities more economically self-sufficient and ecologically benign as inevitable economic and environmental calamities arrive.²⁶⁷ Taking action and responsibility also animates the international Slow Food movement, which is trying to re-localize agriculture and food distribution.²⁶⁸ The international Solidarity Economy movement, too, which is especially active in Europe and Brazil, is developing practical alternatives to global commerce that seek to empower local communities.²⁶⁹ The World Social Forum is a prominent venue for discussions about getting “beyond growth,” reflected most recently in its 2009 manifesto to “reclaim the commons.”²⁷⁰ This list could be supplemented by the many eco-digital commons movements, such as Open Source Ecology and Open Source Hardware, described in Section IV below.²⁷¹

Much more could be said about attempts by homegrown movements to get beyond regulatory politics and the corrupted State/Market. What is significant for our purposes is the desire of so many independent movements to re-invent democratic practice and develop new ways to integrate economic self-provisioning with environmental sensitivity and social justice. Although still protean and evolving, these movements suggest a receptivity to a new paradigm that can get beyond our “stuckness” in a framework of law and policy that can neither reform itself nor usher in a new universe of possibilities.

²⁶⁶ See MARIANNE MAECKELBERGH, *THE WILL OF THE MANY: HOW THE ALTERGLOBALISATION MOVEMENT IS CHANGING THE FACE OF DEMOCRACY* (2009).

²⁶⁷ See ROB HOPKINS, *THE TRANSITION HANDBOOK: FROM OIL DEPENDENCY TO LOCAL RESILIENCE* (2008).

²⁶⁸ See Slow Food International website at <http://www.slowfood.com> (accessed July 28, 2011).

²⁶⁹ See Solidarity Economy website at <http://www.solidarityeconomy.net> (accessed July 28, 2011).

²⁷⁰ See <http://bienscommuns.org/signature/appel/?lang=en> (accessed July 28, 2011).

²⁷¹ See *infra* notes 458 & 459.

B. Vernacular Law as an Instrument of Change

“Vernacular Law,” it will be recalled, is the term we use to distinguish informal or unofficial law—what Michael Reisman calls “microlaw”²⁷²—from the formal or official law (national and international) we call “State Law.”²⁷³ But why do we give it special attention?

The reasons are many. A useful starting point is Reisman’s observation that “[w]hen assessments [of formally organized legal systems] yield discrepancies between what people want and what they can expect to achieve, macrolegal changes may not be effective. Microlegal adjustments may be the necessary instrument of change.”²⁷⁴ He continues: “In everyone’s life, microlaw has not only *not* been superseded by state law but remains . . . the most important and continuous normative experience.”²⁷⁵

Reisman is addressing Vernacular Law, i.e., those sensibilities or expectations of “right” and “wrong,” of “practical” and “ineffective,” that emerge from the everyday lives of “ordinary” people. They may be self-conscious or unself-conscious, but the social protocols that people develop over time in a given societal setting constitute an undeniable form of law. There are, as one might expect, many variants.²⁷⁶ In Section II we identified three relatively conspicuous examples: the canons of the church, the rules of the sporting field, the codes of social etiquette.²⁷⁷ At the other extreme, Reisman includes “looking, staring, and glaring,” “standing in line and cutting in,” and “rapping and talking to the boss.”²⁷⁸ And somewhere in between there exists a seemingly inexhaustible number and variety of Vernacular Law systems, each with its own protocols for what is acceptable and unacceptable, what constitutes a sanction, and other rules for negotiating relationships—e.g., in the management of indigenous communities, peasant collectives, farmers’ markets, businesses and factories, inter-business dealings (e.g., “gentlemen’s agreements”), specialized trades (e.g., magician’s secrets, baker’s recipes), labor unions, academic institutions and classrooms, hospitals and wards, civil society organizations (NGOs), neighborhood associations, fraternal and sororal orders, social clubs, the family, and, obviously not to be overlooked, the commercial market—and at all levels. Such State Law that may govern any of these domains has an informal complement—socially negotiated, based on practical experience, and sometimes tacit—that acts in concert with State Law. The fugue of State and Vernacular law may be subtle, but Vernacular Law is an important process

²⁷² REISMAN, *supra* note 31.

²⁷³ See *supra* note 31 and accompanying text.

²⁷⁴ *Id.* at 4

²⁷⁵ *Id.* (author’s emphasis).

²⁷⁶ As Reisman puts it: “That legal systems, like Mariushka dolls, occur within legal systems within legal systems is hardly rare. Legal anthropologists have demonstrated the prevalence, within the apparently unitary nation-state, of groups with effective political and legal organizations that are independent of and substantively different from those of the state.” REISMAN, *supra* note 31, at 149.

²⁷⁷ See text accompanying notes 30-31, *supra*.

²⁷⁸ REISMAN, *supra* note 31, at chs. 1, 2, & 3.

for establishing the legitimacy of State Law and adapting it to new human and ecological circumstances as necessary.

Vernacular Law is of great interest to us because commons governance depends critically upon the informal, socially negotiated values, principles, and rules that a given community develops. It constitutes a form of “cultural ballast” that give a commons stability and self-confidence, even in the absence of formal law. Perhaps the most salient arena of Vernacular Law today is the Internet, which acts as a great hosting infrastructure for countless digital commons. As the Internet has exploded in scope and become a pervasive cultural force around the world, so Vernacular Law—self-organized, self-policing community governance—has become a default system of law in many virtual spaces (notwithstanding the lurking presence of State or corporate-crafted law that may enframe these commons). For millions of “digital natives” born into a highly networked cultural environment, Vernacular Law is a familiar mode of governance, and the legacy institutions of the “real world” such as the U.S. Congress, courts and large corporations are seen as unresponsive, archaic and/or corrupt.

As one might expect, it cannot be said that these or other examples of Vernacular Law systems are pure in the sense that they are completely off the grid of State Law. The very idea of the uninvolved, non-interfering State in itself communicates an implicit if not explicit policy of official deference and tolerance—a stance that is desirable if not indispensable for the effective governance of modern heterogeneous societies. Clearly there are times when even the tolerant State will intervene if events within these systems are perceived to compromise the policies or existence of the dominant order. But a due regard for the opinions of “the street,” as worked out through Vernacular Law, is essential to any system of formal law.

It must be said that not all Vernacular Law systems are virtuous in the sense of working for the well-being of their constituents and possibly even the wider society beyond. In point: black markets, inner-city gang operations, Internet pirates, and other “criminal” arrangements (from the vantage point of State Law at least). And yet these more problematic forms of Vernacular Law cannot be summarily dismissed as per se criminal; their very existence points to the failures of State Law to meet needs that may be entirely legitimate.

But what is key for present purposes is not the number or varieties of Vernacular Law systems that can be identified; rather, it is that, from time to time, when the State and/or State Law fails to meet the needs, wants, and expectations of the peoples whom they are supposed to serve, then—in Reisman’s words—“microlegal adjustments [i.e., assertions of Vernacular Law] may be the necessary instrument of change.”

No more appropriate demonstration of this truth is to be found than at Runnymede in 1215 when King John of England²⁷⁹ was forced to make concessions to his feudal baron subjects in revolt against his ruinous foreign policy and arbitrary rule. The resulting “peace treaty,” the Great Charter or Magna Carta, restricted the King’s absolute power and settled a number of long-standing disputes

²⁷⁹ Son of Richard the Lionhearted, but not his equal.

in English society in the 13th Century. The document established new terms of agreement to resolve seven conflicts, writes historian Peter Linebaugh, “between church and monarchy, between individual and the state, between husband and wife, between Jew and Christian, between king and baron, between merchant and consumer, between commoner and privatizer.”²⁸⁰

The conflict that most concerns us is this last conflict, the terms of peace of which were spelled out in a companion document, the Charter of the Forest, adopted by King Henry III, son and successor of King John (1166-1216), in 1217. The Charter of the Forest formally recognized the Vernacular Law of the English commoners, that is, their traditional rights of access to, and use of, royal lands and forests. The rights were essentially rights of subsistence, because the commoners depended upon the forests for food, fuel, and economic security through their traditional rights of pannage (pasture for their pigs), estover (collecting firewood), agistment (grazing), and turbary (cutting of turf for fuel), among other practices.²⁸¹ Recognition of these rights also amounted to a form of protection against State terror, which the sheriff had inflicted upon commoners for using the King’s forests. The Charter of the Forest was later incorporated into the Magna Carta and considered an integral part of it.²⁸²

As is well known, the Magna Carta underlies many constitutions and statutes in the English-speaking world, including in the United States; also, the International Bill of Human Rights²⁸³ and the three regional human rights conventions of Europe, the Americas, and Africa.²⁸⁴ Subject to minor adjustments, the Charter of the Forests remained in force from 1215 to 1711, when it was superseded by the U.K.’s Wild Creatures and Forest Laws Act of 1711.²⁸⁵

But what is most notable about this early history of Anglo-American law is its frank recognition of Vernacular Law as an instrument to help State Law make restorative “macrolegal” adjustments. In modern parlance, we might say that Vernacular Law provided the “building blocks” and “feedback loops” to inform the State Law enforced by the sovereign. The social practices and

²⁸⁰ PETER LINEBAUGH, *THE MAGNA CARTA MANIFESTO: LIBERTIES AND COMMONS FOR ALL* 45 (2008).

²⁸¹ For brilliant insight into these historic events and their influence upon contemporary thought and practice, see *id.*

²⁸² Linebaugh writes: “The two charters were reissued together in 1225. McKechnie states, ‘it marked the final form assumed by Magna Carta.’ Subsequently, the two were confirmed together. By 1297 Edward I directed that the two charters become the common law of the land. After a law of Edward III in 1369, the two were treated as a single statute. Both charters were printed together at the commencement of the English *Statutes-at-Large*.” *Id.* at 39.

²⁸³ I.e., the UDHR, *supra* note 151; the International Covenant on Economic and Social Rights (ICESR), Dec. 16, 1966, 993 UNTS 3, art. 12(1); International Covenant on Civil and Political Rights (ICCPR), Dec. 16, 1966, 993 UNTS 171. Each of these core human rights instruments is reprinted in Title III of BASIC DOCUMENTS, *supra* note 13, at III.A.1, III.A.2, and III.A.3, respectively.

²⁸⁴ See ECHR *supra* note 43; American Convention Human Rights, Nov. 22, 1969, 1144 UNTS 123, O.A.S.T.S. 36, OAS Off. Rec. OEA/Ser.L/V/II.23, Doc. 21, Rev. 6, *reprinted in* 9 I.L.M. 99 (1970) and III BASIC DOCUMENTS, *supra* note 13, at III.B.32; Banjul Charter *supra* note 42. Each of these fundamental human rights instruments is reprinted in Title III of BASIC DOCUMENTS, *supra* note 13, at III.B.8, III.B.32, and III.B.1, respectively.

²⁸⁵ Wild Creatures and Forest Laws Act, 1711, c. 47 (Eng.).

traditions of commoners shape normative expectations that, if generally complied with, constitute law, albeit of a sort that usually differs from State Law in purpose and substance. As Linebaugh puts it, “[c]ommoners think first not of title deeds, but of human deeds: How will this land be tilled? Does it require manuring? What grows there? They begin to explore. You might call it a natural attitude.”²⁸⁶

In her study of the history of property law, Yale law professor Carol Rose notes that custom is “a medium through which a seemingly ‘unorganized’ public may organize itself and act, and in a sense even ‘speak’ with the force of law. . . . Over time, communities may develop strong emotional attachments to particular places and staging particular events in those places. . . .”²⁸⁷ Medieval courts were known to elevate custom over other claims, as when they upheld the right of commoners to stage maypole dance celebrations on the medieval manor grounds even after they had been expelled from tenancy.

Courts were and are generally hostile toward claims of traditional rights (or in our terms, rights based on Vernacular Law) because, as one court put it, they are “forms of community unknown in this state.”²⁸⁸ As Rose writes, citing *Delaplace v. Crenshaw & Fisher* (1860),²⁸⁹ “a claim based on custom would permit a ‘comparatively. . . few individuals’ to make a law binding on the public at large, contrary to the rights of the people to be bound only by laws passed by their own ‘proper representatives.’” Indeed, if the customary acts of an unorganized community could vest some form of property rights in that community, then custom could displace orderly government.”²⁹⁰

Courts have been uneasy with the idea of informal communities as a source of law because they are not formally organized or sanctioned by the State, and courts are, generally, creatures of the State after all. But, as Rose notes, this is precisely why such law is so compelling and authoritative a substitute for government-made law; it reflects the people’s will in direct, unmediated ways:

It was a commonplace among British jurists that a general custom, the “custom of the country,” is none other than the common law itself. Looked at from this perspective,

²⁸⁶ LINEBAUGH, *supra* note 280, at 45. Linebaugh continues: “Second, commoning is embedded in a labor process; it inheres in a particular praxis of field, upland, forest, marsh, coast. Common rights are entered into by labor. Third, commoning is collective. Fourth, being independent of the state, commoning is independent also of the temporality of the law and state. Magna Carta does not list rights; it grants perpetuities. It goes deep into human history.” *Id.* at 45.

²⁸⁷ Carol M. Rose, *Comedy of the Commons: Custom, Commerce and Inherently Public Property*, in CAROL M. ROSE, *PROPERTY AND PERSUASION: ESSAYS ON THE HISTORY, THEORY AND RHETORIC OF OWNERSHIP* 134 (1994).

²⁸⁸ As quoted in Rose, *supra* note 287, at 157. Rose comments: “Certainly this remark reflected the general American hostility to the feudal and manorial basis of customary claims. But it also focused precisely on the informal character of the ‘community’ claiming the right; the remark suggested that if a community were going to make claims in a corporate capacity, then the residents would have to organize themselves in a way legally authorized by the state.” *Id.* at 123-24.

²⁸⁹ 56 Va. (15 Gratt.) 457 (1860).

²⁹⁰ *Id.* at 124.

custom is the means by which an otherwise unorganized public can order its affairs, and even do so authoritatively.

Custom thus suggests a route by which a “commons” may be managed—a means different from ownership either by individuals or by organized governments. The intriguing aspect of customary rights is that they vest property rights in groups that are indefinite and informal yet nevertheless capable of self-management. Custom can be the medium through which such an informal group acts; indeed the community claiming customary rights was in some senses not an ‘unorganized’ public at all, even if it was not a formal government either.²⁹¹

In Section IV, where we discuss some of the virtues of commons as a governance solution, we return to Rose’s idea that the Commons can result in a comedy—i.e., greater value-creation through participation—not a tragedy.

For now, the point we wish to emphasize is that the Vernacular Law praxis called the Commons, particularly that of the ecological Commons (what some call “wild law”²⁹²), is a “necessary instrument of change” for a State/Market world order that both contributes to, and fails to prevent, the devastation of Planet Earth’s natural heritage. Vernacular Law in ecological and other commons is simultaneously an institution and process that safeguards holistically the common-pool ecosystems or resources around which it is organized while providing for an equitable distribution of the fruits borne of them. In its broad architecture, the Commons is a paradigm of beneficent ecological governance because it can help restructure humankind’s relationship to the environment in a way that is sustainable and just for present and future generations, and respectful of Mother Nature herself. Unlike the dominant State Law system, thus, the Vernacular Law of the ecological commons is, if properly conceived and structured, inherently predisposed to welcome and support a human right to a clean and healthy environment. As Professor Ugo Mattei observes, “commons are an ecological-qualitative category based on inclusion and access” and thus create “an institutional setting reflecting long term sustainability and full inclusion of all the global commoners, including the poorest and most vulnerable (human and non-human).”²⁹³ By contrast, the dominant State/Market order is an economic-quantitative paradigm of unrelenting territorial sovereignty and competitive privatism in property ownership that “produces scarcity” by fostering exclusion and concentration of power in a few hands.

²⁹¹ Id.

²⁹² See, e.g., CULLINAN, *supra* note 20, at 30, where the author writes: “[T]he term ‘wild law’ cannot easily be snared within the strictures of a conventional legal definition. It is perhaps better understood as an approach to human governance, rather than a branch of law or a collection of laws. It is more about ways of being and doing than the right thing to do.” We hasten to add, however, that, while we agree with Cullinan’s existential sentiments, we do not agree with his jurisprudential outlook, too tied as it is, we believe, to a kind of Austinian positivism that insists that law, to be law, requires the apparatus of the state, everything else being “positive morality.”

²⁹³ Mattei, *supra* note 206, at 5 (English version).

We clarify and expand upon these and other virtues of commons governance in forthcoming Sections IV and V. Suffice it to say for present purposes that the primary task of the ecological commons is not to do battle with the State or Market. It is, rather, to establish or restore effective control over ecological resources at the appropriate scale via all diplomatic means available and through delegation of control as necessary. It also is necessary for ecological commons to be assertive agents of normative, institutional, and procedural change, alone and in cooperation with the State and Market. The goal always should be to advance the logic of respect for nature, sufficiency, interdependence, shared responsibility, and fairness, to the maximum extent possible. The ethic should foster an integrated global and local citizenship that insists upon transparency and accountability in all environmental dealings. Additionally, commons governance should strive to ensure *internally* that the substance and practice of human rights values and principles are honored, based on the presumption that human rights and effective ecological governance go hand in hand.

We of course do not contend that any of these tasks are anything but extremely difficult. To say that it will take incredible fortitude and patience to achieve these outcomes is but to state the obvious. At this conceptual (and operational) juncture, indeed, comes the greatest challenge of all, as it does for all who seek to shift psychological and behavioral paradigms—to wit, the burden of persuading the dominant State/Market order, nationally and internationally, to recognize and cooperate in making the shift. To this end must be brought to bear all the wiles and skills and tools known to effective persuasion, a process of “interaction, interpretation, and internalization,” not unlike that described by Harold Koh relative to the domestic or national enforcement of international human rights law.²⁹⁴ Of course, despite the many procedural roadblocks that can easily discourage the faint of heart, one must engage all the formal processes that national and international legal systems have to offer, especially if they are potentially receptive. At the same time, indispensable though such processes can be in many instances, a healthy realism will appreciate that they are not likely to yield swift progress when faced with the enormous task of altering our individual and societal DNAs to win acceptance of a different way of thinking and doing. Furthermore, formal legal strategies tend frequently to be “top-down” or “elitist,” and therefore suspect because they are inclined either to overlook disparities in power between the “haves” and “have nots”—especially at points of conflict—or to co-opt the quest for change itself.

It is our perception, in other words, that, together with appropriate “top-down” initiatives, it is largely “bottom-up” or “grass roots” approaches that must be pursued, and in as inclusive and comprehensive a manner as possible. No function of effective policy- and decision-making (information retrieval and dissemination, promotion and advocacy, prescription, invocation, application and enforcement, termination, and appraisal and recommendation) can be overlooked, and no element of society (individuals, families, communities, academic institutions, trade unions, business enterprises, faith-based groups, NGOs and associations, government agencies, intergovernmental organizations) can or should be considered exempt. It also is our perception that all efforts to achieve the ecological governance paradigm shift that is so desperately needed at this historical moment will have the greatest chance of succeeding if they are part of an holistic human rights strategy, both conceptually and operationally.

²⁹⁴ See Harold Hongju Koh, *How Is International Human Rights Law Enforced?*, 74 IND. L.J. 1397 (1999).

C. Shifting the Ecological Governance Paradigm via Human Rights

We have now sketched the ways in which the standard economic narrative is crumbling in the face of new realities, giving way to new frameworks for understanding value; how new types of self-organization and collaboration on the Internet are pointing toward new governance possibilities; and how new initiatives seek to move human rights advocacy beyond the neoliberal policy framework. In this dynamically different landscape, we believe that there are new opportunities to change and enlarge human rights advocacy on behalf of a clean and healthy environment. Working side by side with the standard right-to-environment approaches, as well as the emerging intergenerational and Nature's rights approaches, it is timely as well as necessary, we believe, to re-imagine the right to a clean and healthy environment in the form of a new procedural environmental right, namely, the human right to commons- and rights-based ecological governance. Such an approach would embody the spirit of Article 28 of the Universal Declaration of Human Rights²⁹⁵ ("Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized") as well as the procedural tradition of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters.²⁹⁶

Why do we believe these things? Why do we believe that applying human rights law to commons-based ecological governance is essential?

We start with the fact that the enforcement procedures of human rights law are more advanced than those of international environmental law (which is not to say that they are advanced enough). Beyond this, our reasons are four, each of them informed by such brutal injustices as the 1988 murder of Chico Mendes in Brazil because of his efforts to protect the rain forests against the interests of ranchers and others closely tied to government officials;²⁹⁷ by the 1995 hanging of Ken Saro- Wiwa of Nigeria for protesting the disastrous oil drilling operations of the government junta and its corporate cronies in his native Ogoniland²⁹⁸—and, indeed, by the terror inflicted by the King's sheriff on 13th Century commoners for trying to continue their customary use of forests for their subsistence.

1. Human Rights as "Trumps"

In his germinal book, *Taking Rights Seriously*, legal philosopher Ronald Dworkin asserts unequivocally—and correctly—that when a claimed value or good is categorized as a "right" it "trumps" most if not all other claimed values or goods.²⁹⁹ By framing perceived environmental

²⁹⁵ *Supra* note 151. **Error! Main Document Only.**

²⁹⁶ *Supra* note 42.

²⁹⁷ See, e.g., ALEX SHOUMATOFF, *THE WORLD IS BURNING: MURDER IN THE RAIN FOREST* (1991); ANDREW REVKIN, *THE BURNING SEASON: THE MURDER OF CHICO MENDES AND THE FIGHT FOR THE AMAZON RAIN FOREST* (2004).

²⁹⁸ See, e.g., CRAIG W. MCLUCKIE & AUBREY MCPHAIL, *KEN SARO WIWA: WRITER AND POLITICAL ACTIVIST* (2000). See also Addendum, *supra* note 28, at text accompanying notes 49-56.

²⁹⁹ RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 91-93, 189-91, 269 (1977).

entitlements as human rights, rights holders can assert maximum claims on society, juridically more elevated than commonplace “standards,” “laws,” or mere policy choices which, in contrast to “human rights,” are subject to everyday revision and rescission for lack of such ordination. A proximate analogy is the distinction between a contractual or statutory claim and a constitutional one. Write Kiss and Shelton, “[r]ights are inherent attributes of human beings that must be respected in any well-ordered society. The moral weight this concept affords exercises an important compliance pull.”³⁰⁰

Thus, when human abuse or degradation of a natural resource or ecosystem is designated the wronging of a right, or when an aspiration for a new right to rights/commons-based ecological governance is authoritatively recognized as a right, there results an opportunity for empowerment and mobilization that otherwise is lacking. A human right is not merely a regulatory prohibition that can be changed or discarded at will. A rights-based approach to ecological governance enhances the status of the environmental interests of human beings and other living things when balanced against competing objectives, granting such interests formal legal and political legitimacy.³⁰¹

In sum, rights are not matters of charity, a question of favor or kindness to be bestowed or taken away at pleasure. They are high-level public order values or goods at the apex of public policy. They carry with them a sense of entitlement on the part of the rights-holder and obligatory implementation on the part of the rights-protector—intergovernmental institutions, the state, society, the family. They are values or goods deemed fundamental and universal; and while not absolute, they nonetheless are judged superior to other claimed values or goods. To assert a right to be free of degrading and otherwise abusive environmental behavior, is, thus, to strengthen the possibility for a life of dignity and well-being. It bespeaks duty, not optional benevolence.

2. Human Rights as Interdependent Agents of Human Dignity

Central to the concept of human rights, as just intimated, is the notion of a “public order of human dignity,” an *ordre publique* “in which values are shaped and shared more by persuasion than by coercion, and which seeks to promote the greatest production and widest possible sharing, without discriminations irrelevant of merit, of all values among all human beings.”³⁰² This notion of public order, encapsulating “the basic policies of an international law of human dignity,”³⁰³ is embedded in the International Bill of Human Rights.³⁰⁴

³⁰⁰ ALEXANDER KISS & DINAH SHELTON, GUIDE TO INTERNATIONAL ENVIRONMENTAL LAW 238 (2007).

³⁰¹ See PATRICIA W. BIRNIE, ALAN E. BOYLE, & CATHERINE REDGWELL, INTERNATIONAL LAW AND THE ENVIRONMENT 255 (3d ed. 2009) (citing the arguments advanced by the U.N. Sub-Commission on the Prevention of Discrimination and Protection of Minorities for adopting its proposed Declaration of Principles on Human Rights and the Environment in 1994).

³⁰² MYRES S. MCDUGAL, *Perspectives for an International Law of Human Dignity*, in MYRES S. MCDUGAL ET AL., STUDIES IN WORLD PUBLIC ORDER 987 (1987).

³⁰³ MYRES S. MCDUGAL, HAROLD D. LASSWELL & LUNG-CHU CHEN, HUMAN RIGHTS AND WORLD PUBLIC ORDER: THE BASIC POLICIES OF AN INTERNATIONAL LAW OF HUMAN DIGNITY iv (1980).

³⁰⁴ *Supra* note 283.

In the struggle for a clean and healthy environment, a human rights approach to ecological governance thus signals more than environmental protection per se. It signals also that norms of nondiscrimination, justice, and dignity must be central in all aspects of ecological governance, including in the manner in which environmental grievances are processed and resolved. The human right to a clean and healthy environment is part of a complex web of interdependent rights that extends protection beyond one domain to many others. Most if not all human rights depend on the satisfaction of other human rights for their fulfillment.

Treating freedom from abusive environmental practices as a human right thus raises the stakes against those who would damage our natural world. It transforms the struggle for ecological governance in the common interest into a struggle for human dignity and ecological well-being. It recognizes, write international environmental law scholars Birnie, Boyle, and Redgwell, the “vital character of the environment as a basic condition of life, indispensable to the promotion of human dignity and welfare, and to the fulfillment of other human rights.”³⁰⁵ It thus better captures responsible attention and heightened pressure in the search for enduring solutions.

3. Human Rights as a Mobilizing Challenge to Statist and Elitist Agendas

As a marker of preeminent societal values and agents of human dignity, human rights challenge and make demands upon state sovereignty, a point that bears special notice when it comes to imagining a new human right to rights/commons-based ecological governance. Scores of human rights conventions entered into force since World War II require states to cede bits of sovereignty in the name of human dignity. Legal obligations of great solemnity, many environmental treaties and declarations may be counted among them. They include the 1972 Stockholm Declaration on the Human Environment, the 1982 World Charter for Nature, the 1986 Legal Principles for Environmental Protection and Sustainable Development adopted by the Experts Group on Environmental Law of the World Commission on Environment and Development (WCED), the 1992 Rio Declaration on Environment and Development, and the 2002 Johannesburg Declaration on Sustainable Development.³⁰⁶

Proof that human rights challenge and make demands upon state sovereignty is found, too, in the many occasions in which states, intergovernmental institutions, NGOs, professional associations, corporations, trade unions, faith-based groups, and others have relied successfully on this “corpus juris of social justice”³⁰⁷ to measure and curb state behavior. Invoking criteria informed and refined by human rights, including environmental rights, critics question the legitimacy of

³⁰⁵ BIRNIE ET AL., *supra* note 301, at 278-79; *see also* Boyle (2008), *supra* note 27, at 483; Boyle (2009), *supra* note 27, at 1-13.

³⁰⁶ Stockholm Declaration, *supra* note 40; WCED Expert Group on Environmental Law, *Environmental Protection and Sustainable Development: Legal Principles and Recommendations*, U.N. Doc. WCED/86/23/Add.1 (1986), *reprinted in* V BASIC DOCUMENTS, *supra* note 13, at V.B.12; the Rio Declaration, *supra* note 107; Johannesburg Declaration on Sustainable Development, *available at* http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm (accessed July 23, 2011).

³⁰⁷ C. Van Boven, *Survey of the Positive Law of Human Rights*, in *THE INTERNATIONAL DIMENSIONS OF HUMAN RIGHTS*, vol. 1, at 87, 88 (Karl Vasak ed., revised and edited for the English transl. by Philip Alston, 1982).

political regimes, and hence their capacity to govern non-coercively or at all. In short, the worldwide recognition of human rights as both a moral and legal beacon for assessing the actual behaviors of governments can be powerfully influential—a dynamic now seen in political and market players vying to claim a “green” public image and reputation.

All of this is well known. To be sure, there is considerable posturing and gaming of perceptions to try to claim unwarranted moral standing. However, most states are keenly aware of their interdependencies. They know that, however much they may resist human rights pressures from within and without, their national interests and desired self-image depend on their willingness to play by the rules or to be perceived as doing so, especially when those rules weigh heavily on the scales of social and political morality. Even the most powerful states are vulnerable to what has come to be called “the mobilization of shame” in defense of human rights.³⁰⁸ There is no principled reason why states that encourage or tolerate release of greenhouse gases into the atmosphere—or other abusive, degrading, or hazardous environmental practices—cannot or should not be targeted and shamed.

But not only states. Human rights challenge and make demands upon the particularist agendas of private elites as well. Why? Because human rights have as their core value that of respect, an entitlement of equality and non-discriminatory treatment that belongs to all human beings everywhere. “Equality or non-discrimination,” wrote the late Virginia Leary, “is a leitmotif running through all of international human rights law.”³⁰⁹ There is no question that these principles are often disregarded, much as law itself is often violated. Still, the widespread recognition of human rights across space and time places a significant moral burden, and often a political and legal one as well, on those who treat other human beings in disrespectful, discriminatory ways; and it is increasingly a burden, too, upon those who treat the natural environment in such ways. The potential of human rights norms to dislodge or seriously burden private exclusive interests that commit and perpetuate environmental abuse is thus likewise manifest.

4. Human Rights as Legal and Political Empowerments

As noted, human rights carry with them a sense of entitlement on the part of the rights-holder. They embrace also a corollary “right of the individual to know and act upon his rights”³¹⁰ — which implies, of course, a duty of satisfaction or redress on the part of the state and other actors

³⁰⁸ See, e.g., ROBERT F. DRINAN, S.J., *THE MOBILIZATION OF SHAME* (2001).

³⁰⁹ Virginia A. Leary, *The Right to Health in International Human Rights Law*, 1 HEALTH & HUM. RTS. No. 1, at 26, 37 (1994).

³¹⁰ This quotation is from Paragraph 7 of the 1975 Helsinki Accords, officially known as the *Final Act of the Conference on Security and Co-operation in Europe: Declaration on Principles Guiding Relations between Participating States, Respect for Human Rights and Fundamental Freedoms, Including the Freedom of Thought, Conscience, and Religion or Belief*, Aug 1, 1975, reprinted in 14 ILM 1292 (1975) and I BASIC DOCUMENTS, *supra* note 13, at I.D.10. We choose to distance ourselves, however, from its “man-made” syntax, as we do, indeed with all other uses of official and unofficial language that imply that only men are international lawyers, judges, politicians, or other actors in international law and affairs. It is important to appreciate that international law and relations discourse has developed in a lop-sided, gendered way, and we hope that any sexist language we quote hereinafter, which we leave unamended so as not to hinder ease of reading, will nonetheless strike the reader as inappropriate.

who must respond to right-to-know requests. The essence of rights discourse (or human rights law) is that, in Michael Freeman's pointed alert, "if you have a right to x, and you do not get x, this is not only a wrong, but it is a wrong against *you*."³¹¹ This extends inexorably to environmental rights-holders, both living and unborn, principal or surrogate. The 1998 Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters,³¹² for example, states clearly its "objective" that "to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each [State] Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention."³¹³ Though regional in intent, the Convention's impact has been to serve also as a model for environmental procedure everywhere.

At least five specific ways may be identified by which human rights accomplish this empowerment.³¹⁴ Each bears obvious relevance to environmental protection.

First, human rights provide a level of accountability that transcends that of other legal obligations. Like those obligations, human rights provide victims of rights violations with the authority to hold violators accountable, even to the point of criminal liability. However, because human rights entail fundamental values of "superior" legal and moral order, their violation correspondingly entails greater moral condemnation than other wrongs. This is what distinguishes "rights" from "benefits" or from being the beneficiary of another's obligation.³¹⁵ It is what makes possible, for example, "the mobilization of shame" and the condemnation of the international community, commonly without even having to go to formal court. The "truth and reconciliation" processes of Argentina, Chile, El Salvador, Ghana, Guatemala, Haiti, Malawi, Nepal, Nigeria, The Philippines, Serbia and Montenegro, South Africa, South Korea, and elsewhere are proof enough.³¹⁶ On occasion, they can be more effective than their more formal legal counterparts in overcoming impunity.³¹⁷

³¹¹ MICHAEL D.A. FREEMAN, HUMAN RIGHTS: AN INTERDISCIPLINARY APPROACH 61 (2002).

³¹² *Supra* note 42.

³¹³ *Id.* art. 1.

³¹⁴ For much of what follows in this subsection, we are indebted to Ronald C. Slye, *International Human Rights Law in Practice: International Law, Human Rights Beneficiaries, and South Africa: Some Thoughts on the Utility of International Human Rights Law*, 2 CHI. J. INT'L L., 59, 73-76 (2001).

³¹⁵ JACK DONNELLY, THE CONCEPT OF HUMAN RIGHTS 1-3 (1985); _____ UNIVERSAL HUMAN RIGHTS IN THEORY AND PRACTICE 9-12 (1989).

³¹⁶ *See, e.g.*, the website of the United States Institute of Peace, at <http://www.usip.org/library/truth.html> (accessed July 1, 2011).

³¹⁷ *See* TRUTH AND JUSTICE: THE MORALITY OF TRUTH COMMISSIONS (Robert I. Rotberg, & Dennis Thompson eds., 2000); *see also* MARTHA MINOW, BETWEEN VENGEANCE AND FORGIVENESS: FACING HISTORY AFTER GENOCIDE AND MASS VIOLENCE (1999); John Dugard, *Reconciliation and Justice: The South African Experience*, in THE FUTURE OF INTERNATIONAL HUMAN RIGHTS 399 (Burns H. Weston & Stephen P. Marks eds., 1999) (hereinafter "WESTON & MARKS").

Second, though closely related, human rights, by virtue of their superior legal and moral standing, help shift legal/moral burdens to redistribute power. This attribute is particularly helpful when victims of harm seek to hold powerful economic and political forces accountable, typically the case in large-scale environmental crises. Addressing climate change, in particular, requires that we address the problem of power imbalance “between the interests that stand to gain from climate change regulation and those that stand—in the short run at least—to lose.”³¹⁸ Framing climate change as a human rights problem helps to empower politically weaker interests with serious substantive and/or procedural claims in their struggles against the powerful—as could be the case, for example, in seeking recognition of a right to rights/commons-based ecological governance. “By acting as ‘trumps,’” Professor Amy Sinden writes, “human rights effectively put a thumb on the scale in favor of the weaker party in order to correct for the distorting effects of power.”³¹⁹ Imagine British Petroleum’s Deepwater Horizon disaster approached in this light.

Third, human rights provide access to international institutions dedicated specifically to their promotion and vindication, including the widely accepted (though dubiously effective) human rights state-to-state and individual petition mechanisms of the United Nations, the regional human rights regimes of Europe, the Americas, and Africa, and specialized treaty bodies. The effectiveness of these institutions as enforcement mechanisms is not consistent and often cumbersome and time-consuming, particularly at the global level. Nevertheless, they confirm that human suffering is and can be taken seriously, providing formal legal tools to remedy or otherwise mitigate abuses and thereby help to prevent future abuse.³²⁰ As international environmental law scholars Kiss and Shelton note, there is now an “extensive jurisprudence in which the specific obligations of states to protect and preserve the environment are detailed.”³²¹ Both these formal legal tools and less formal techniques, such as civil society mobilization of shame, can deter violations of individual and group environmental rights.

Fourth, as human rights entail greater moral force than ordinary legal obligations, they generate legal grounds for political activity and expression. This is abundantly seen in the many global and regional conferences and other gatherings commonly called under the auspices of the United Nations and such regional organizations as the Council of Europe, the Organization of American States, and the African Union, each providing a forum in which the voices of human rights victims and advocates can be heard. The history of the anti-apartheid movement is replete with examples.³²² The adoption of new resolutions and treaties, the recommendation of new norms

³¹⁸ Sinden, *supra* note 27, at 264.

³¹⁹ *Id.*, at 270.

³²⁰ *See generally*, GUIDE TO INTERNATIONAL HUMAN RIGHTS PRACTICE (Hurst Hannum ed., 4th ed. 2004).

³²¹ KISS & SHELTON, *supra* note 60, at 238.

³²² Also illustrative, particularly when they find the strength to function independently of their state clients, are the conferences and high-level meetings of the U.N.’s specialized agencies and programs that commonly deal with environmental or environmentally-related issues, often of large scale—e.g., the Food and Agriculture Organization (FAO), the International Maritime Organization (IMO), the World Health organization (WHO), the U.N. Development Programme (UNDP), the U.N. Environmental Programme (UNEP), the U.N. Human Settlements Programme (UN-

and mechanisms, the reinterpretation of existing international and domestic norms and procedures—these and other such activities contribute to legal and political empowerment because “[t]he more fortunate are called upon to assist the less fortunate as an internationally recognized responsibility.”³²³ The authority of the sponsoring organizations and participants, and the resulting rights vocabulary and action plans, help to fortify all varieties of human rights projects.

Finally, human rights discourse and strategy encourage the creation of initiatives both within and beyond civil society that are designed to facilitate the meeting of “basic needs.” For many years, Cold War rivalries stifled any such efforts (except for the 1975 Helsinki Accords³²⁴) until the fall of the Berlin Wall in 1989. But since 1989, they have proliferated, especially in the human rights advocacy and scholarly communities. This is of profound importance because such initiatives foster the provision of basic needs, including, obviously, a clean and healthy environment. Assuring people that they have the material basis to act on their rights is the very definition of empowerment.³²⁵

Of course, no defense of a rights-based strategy for achieving a fundamental shift in the normative, institutional, and procedural ways we go about governing the natural environment can be considered complete without also addressing the likely objections. We do so in Section VI (Coda) where, we believe, this discussion is best suited to serve the overall purposes of this essay. At the same time, as a first step in the human rights strategy we advocate to actualize our paradigm-shifting vision, we recommend for adoption by the United Nations General Assembly several key declarations, in particular a declaration recognizing a procedural human right to commons- and rights-based ecological governance.

HABITAT), the Office of the U.N. High Commissioner for Human Rights (OHCHR), and the U.N. High Commissioner for Refugees (UNHCR) as well as other intergovernmental organizations.

³²³ Mary Robinson, *Foreword to Marta Santos Pais, A Human Rights Conceptual Framework for UNICEF* v (Innocenti Essay No. 9, Florence: UNICEF International Child Development Centre, May 1999), available at <http://www.unicef.org/cfc/essay-0.pdf> (accessed July 1, 2011).

³²⁴ *Supra* note 310.

³²⁵ See, e.g., Richard Pierre Claude, *What Do Human Rights NGOs Do?*, in HUMAN RIGHTS IN THE WORLD COMMUNITY: ISSUES AND ACTION 424 (Richard Pierre Claude & Burns H. Weston, eds. & contris., 3d ed. 2006).