

### 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 Rights<sup>212</sup> (“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 alliance<sup>213</sup> 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

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<sup>212</sup> UDHR, *supra* note 151 **Error! Main Document Only..**

<sup>213</sup> 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.<sup>214</sup> 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.<sup>215</sup> 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.<sup>216</sup> 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.”<sup>217</sup> 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

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<sup>214</sup> See, e.g., EARTHJUSTICE, HISTORY OF REGULATORY FAILURE (January 2005), available at [http://www.caleleanair.org/2008/files/Report%20HistoryOfDelay\\_Jan05.pdf](http://www.caleleanair.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.

<sup>215</sup> 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).

<sup>216</sup> 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).

<sup>217</sup> 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.<sup>218</sup>

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,

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<sup>218</sup> 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.<sup>219</sup>

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.”<sup>220</sup> People are said to maximize their individual, rational

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<sup>219</sup> 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.

<sup>220</sup> 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.<sup>221</sup> Neither unfettered markets nor the regulatory State has been effective in abating or preventing major ecological disasters and deterioration over the past several generations.<sup>222</sup> 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.<sup>223</sup> 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.<sup>224</sup>

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

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

<sup>222</sup> 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.”

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

<sup>224</sup> *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.”<sup>225</sup> 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.<sup>226</sup> 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.”<sup>227</sup> 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.<sup>228</sup> By the

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

<sup>226</sup> 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.

<sup>227</sup> *Id.* at 1402.

<sup>228</sup> 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.<sup>229</sup> 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.<sup>230</sup> 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.”<sup>231</sup>

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.<sup>232</sup>

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

<sup>229</sup> 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).

<sup>230</sup> 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.”)

<sup>231</sup> 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.”

<sup>232</sup> 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.<sup>233</sup> 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.<sup>234</sup> This helps explain why some xx,000 chemicals are sold on the Market without independent pre-Market testing for health effects;<sup>235</sup> why no regulatory scheme has been devised for nanotechnology despite warnings raised about it;<sup>236</sup> why the regulatory apparatus for deep-water oil drilling remains much the same as before

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<sup>233</sup> *Supra* note 157.

<sup>234</sup> *See, e.g.*, authorities cited in *supra* note 193.

<sup>235</sup> 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.

<sup>236</sup> *See* ETC GROUP, THE BIG DOWNTURN? NANOGEOPOLITICS 16 (Feb. 10, 2011), [http://www.etcgroup.org/upload/publication/pdf\\_file/nano\\_big4web.pdf](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”;<sup>237</sup> and why little action has been taken to address global warming despite scientific warnings raised over three decades ago.<sup>238</sup>

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.<sup>239</sup> 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.<sup>240</sup>

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

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<sup>237</sup> 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.”

<sup>238</sup> 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.”)

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

<sup>240</sup> 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).<sup>241</sup> 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.<sup>242</sup>

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;<sup>243</sup> behavioral economists who study empirical social and personal behaviors;<sup>244</sup> neuroeconomics, which studies how evolution has shaped human propensities to cooperate and compete;<sup>245</sup> the Solidarity Economy movement that is focused on building working projects and policies based on cooperation;<sup>246</sup> the “degrowth” movement that seeks to find the means to arrest

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

<sup>242</sup> 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).

<sup>243</sup> 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).

<sup>244</sup> 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).

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

<sup>246</sup> 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,<sup>247</sup> and a diverse array of ecological economists who are trying to force conventional economics to take account of ecological realities.<sup>248</sup>

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.<sup>249</sup>

## ***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

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<sup>247</sup> 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).

<sup>248</sup> 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).

<sup>249</sup> 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.<sup>250</sup>

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.<sup>251</sup> 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

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<sup>250</sup> 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.

<sup>251</sup> 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.”<sup>252</sup>

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.<sup>253</sup>

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.<sup>254</sup>

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<sup>252</sup> BOLLIER, *supra* note 229, at 142.

<sup>253</sup> 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](http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/The_Future_of_Work.pdf) (accessed July 25, 2011).

<sup>254</sup> Indeed, the rise of network-based social organization—“netarchic,” in Michel Bauwens’ term, at [http://p2pfoundation.net/Netarchical\\_Capitalism](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](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 it<sup>255</sup>) 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.”<sup>256</sup> 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.<sup>257</sup> 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.”<sup>258</sup>

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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>.

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

<sup>256</sup> 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).

<sup>257</sup> 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).

<sup>258</sup> 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.<sup>259</sup> 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.<sup>260</sup>

### *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;

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<sup>259</sup> 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).

<sup>260</sup> *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,<sup>261</sup> and insider critiques of the U.S. environmental movement now find receptive audiences.<sup>262</sup> 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.<sup>263</sup> 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.<sup>264</sup> “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.<sup>265</sup>

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 food systems, building alternative businesses and cooperatives, and re-

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<sup>261</sup> 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.

<sup>262</sup> 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](http://www.thebreakthrough.org/images/Death_of_Environmentalism.pdf) (accessed July 25, 2011).

<sup>263</sup> 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.

<sup>264</sup> *Id.*

<sup>265</sup> 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.<sup>266</sup> 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.<sup>267</sup> Taking action and responsibility also animates the international Slow Food movement, which is trying to re-localize agriculture and food distribution.<sup>268</sup> 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.<sup>269</sup> 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.”<sup>270</sup> 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.<sup>271</sup>

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.

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

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

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

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

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

<sup>271</sup> 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”<sup>272</sup>—from the formal or official law (national and international) we call “State Law.”<sup>273</sup> 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.”<sup>274</sup> 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.”<sup>275</sup>

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.<sup>276</sup> 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.<sup>277</sup> At the other extreme, Reisman includes “looking, staring, and glaring,” “standing in line and cutting in,” and “rapping and talking to the boss.”<sup>278</sup> 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

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<sup>272</sup> REISMAN, *supra* note 31.

<sup>273</sup> *See supra* note 31 and accompanying text.

<sup>274</sup> *Id.* at 4

<sup>275</sup> *Id.* (author’s emphasis).

<sup>276</sup> 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.

<sup>277</sup> *See* text accompanying notes 30-31, *supra*.

<sup>278</sup> 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 England<sup>279</sup> 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

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<sup>279</sup> 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.”<sup>280</sup>

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.<sup>281</sup> 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.<sup>282</sup>

As is well known, the Magna Carta underlies many constitutions and statues in the English-speaking world, including in the United States; also, the International Bill of Human Rights<sup>283</sup> and the three regional human rights conventions of Europe, the Americas, and Africa.<sup>284</sup> Subject to minor adjustments, the Charter of the Forests remained in force from 1215 to 1971, when it was superseded by the U.K.’s Wild Creatures and Forest Laws Act of 1971.<sup>285</sup>

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

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

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

<sup>282</sup> 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.

<sup>283</sup> 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.

<sup>284</sup> 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 3 **BASIC DOCUMENTS**, *supra* note 13, at III.B.24; 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.2, III.B.24, and III.B.1, respectively.

<sup>285</sup> Wild Creatures and Forest Laws Act, 1971, 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.”<sup>286</sup>

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. . . .”<sup>287</sup> 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.”<sup>288</sup> As Rose writes, citing *Delaplace v. Crenshaw & Fisher* (1860),<sup>289</sup> “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.”<sup>290</sup>

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,

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<sup>286</sup> 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.

<sup>287</sup> 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).

<sup>288</sup> 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.

<sup>289</sup> 56 Va. (15 Gratt.) 457 (1860).

<sup>290</sup> *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.<sup>291</sup>

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”<sup>292</sup>), 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).”<sup>293</sup> 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.

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<sup>291</sup> Id.

<sup>292</sup> 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.”

<sup>293</sup> 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.<sup>294</sup> 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.

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<sup>294</sup> 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 Rights<sup>295</sup> (“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.<sup>296</sup>

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;<sup>297</sup> 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 Ogoniland<sup>298</sup>—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.<sup>299</sup> By framing perceived environmental

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<sup>295</sup> *Supra* note 151. **Error! Main Document Only.**

<sup>296</sup> *Supra* note 42.

<sup>297</sup> 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).

<sup>298</sup> 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.

<sup>299</sup> 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.”<sup>300</sup>

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.<sup>301</sup>

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.”<sup>302</sup> This notion of public order, encapsulating “the basic policies of an international law of human dignity,”<sup>303</sup> is embedded in the International Bill of Human Rights.<sup>304</sup>

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<sup>300</sup> ALEXANDER KISS & DINAH SHELTON, *GUIDE TO INTERNATIONAL ENVIRONMENTAL LAW* 238 (2007).

<sup>301</sup> 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).

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

<sup>303</sup> 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).

<sup>304</sup> *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.”<sup>305</sup> 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.<sup>306</sup>

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”<sup>307</sup> to measure and curb state behavior. Invoking criteria informed and refined by human rights, including environmental rights, critics question the legitimacy of

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<sup>305</sup> 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.

<sup>306</sup> 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 5 **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](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm) (accessed July 23, 2011).

<sup>307</sup> 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.<sup>308</sup> 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.”<sup>309</sup> 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”<sup>310</sup> — which implies, of course, a duty of satisfaction or redress on the part of the state and other actors

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

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

<sup>310</sup> 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 1 **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*."<sup>311</sup> 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,<sup>312</sup> 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."<sup>313</sup> 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.<sup>314</sup> 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.<sup>315</sup> 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.<sup>316</sup> On occasion, they can be more effective than their more formal legal counterparts in overcoming impunity.<sup>317</sup>

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

<sup>312</sup> *Supra* note 42.

<sup>313</sup> *Id.* art. 1.

<sup>314</sup> 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).

<sup>315</sup> JACK DONNELLY, THE CONCEPT OF HUMAN RIGHTS 1-3 (1985); \_\_\_\_\_ UNIVERSAL HUMAN RIGHTS IN THEORY AND PRACTICE 9-12 (1989).

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

<sup>317</sup> 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.”<sup>318</sup> 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.”<sup>319</sup> 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.<sup>320</sup> 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.”<sup>321</sup> 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.<sup>322</sup> The adoption of new resolutions and treaties, the recommendation of new norms

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<sup>318</sup> Sinden, *supra* note 27, at 264.

<sup>319</sup> *Id.*, at 270.

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

<sup>321</sup> KISS & SHELTON, *supra* note 60, at 238.

<sup>322</sup> 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.”<sup>323</sup> 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 Accords<sup>324</sup>) 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.<sup>325</sup>

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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.

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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.

<sup>323</sup> 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).

<sup>324</sup> *Supra* note 310.

<sup>325</sup> 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. & contribs., 3d ed. 2006).