At least since Rachel Carson’s *Silent Spring*, we have known about humankind’s squandering of nonrenewable resources, its careless disregard of precious life species, and its overall contamination and degradation of delicate ecosystems. In recent decades, these defilements have assumed a systemic dimension. Lately we have come to realize the shocking extent to which our atmospheric emission of carbon dioxide and other greenhouse gases threatens Planet Earth.

If the human species is going to overcome the many interconnected ecological catastrophes now confronting us, this moment in history requires that we entertain some bold modifications of our legal structures and political culture. We must find the means to introduce new ideas for effective and just environmental protection—locally, nationally, regionally, globally and points in between.

We believe that effective and just environmental protection is best secured via *commons-and rights-based ecological governance*, operational from local to global and administered according to principles rooted in respect for nature and fellow human beings. We call it ‘greenkeeping governance’. We also believe that the rigorous application of a reconceptualized human right to a clean and healthy environment (or ‘right to environment’) is the best way actually to promote environmental well-being while meeting everyone’s basic needs.

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, and to develop qualitatively different types of relationships with nature itself and, indeed, with each other. An economics and supporting civic polity that valorizes growth and material development as the precondition for virtually everything else is ultimately a dead end—literally.

Achieving a clean, healthy and ecologically balanced environment requires that we cultivate a practical governance paradigm based on, first, a logic of respect for nature, sufficiency, interdependence, shared responsibility and fairness among all human beings; and, second, an ethic of integrated global and local citizenship that insists upon transparency and accountability in all activities affecting the integrity of the environment.

We believe that commons- and rights-based ecological governance—greenkeeping governance—can fulfill this logic and ethic. Properly done, it can move us beyond the neoliberal State and Market alliance—what we call the ‘State/Market’—which is chiefly responsible for the current, failed paradigm of ecological governance.

The basic problem is that the price system, seen as the ultimate governance mechanism of our polity, falls short in its ability to represent notions of value that are subtle, qualitative, long-term and complicated. These are, however, precisely the attributes of natural systems. The price system 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 the 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. Conversely, anything that does not have a price and exists ‘outside’ the market is regarded (for the purposes of policy-making) as having subordinate or no value.

What is more, it is an open secret that various industry lobbies have captured if not corrupted the legislative process in countries around the world; 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. 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. 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.

Still, it will not be an easy task to make the transition from State/Market ecological governance to commons- and rights-based ecological governance. Greenkeeping governance is, indeed, a daunting proposition. It entails serious reconsideration of some of the most basic premises of our economic, political, and legal orders, and of our cultural orders as well. It requires that we enlarge
our understanding of ‘value’ in economic thought to account for nature and social well-being; that we expand our sense of human rights and how they can serve strategic as well as moral purposes; that we liberate ourselves from the limitations of State-centric models of legal process; and that we honor the power of non-market participation, local context and social diversity in structuring economic activity and addressing environmental problems.

Of course, there is also the deeper issue of whether contemporary civilization can be persuaded to disrupt the status quo to save our ‘lonely planet.’ Much will depend on our ability to articulate and foster a coherent new paradigm of ecological stewardship. Fortunately, there are some very robust, encouraging developments now beginning to flourish on the periphery of the mainstream political economy. These include insurgent schools of thought in economics, ecological management and human rights aided by fledgling grassroots movements (e.g., Occupy Now) and Internet communities. Although disparate and irregularly connected, each seeks in its own way to address the many serious deficiencies of centralized governments (corruption, lack of transparency; rigidity, a marginalized citizenry) and concentrated markets (externalized costs, fraud, the bigger-better-faster ethos of material progress). Taken together, these trends suggest the emergent contours of a new paradigm of ecological governance.

For all their power and potential, however, none of these movements or their visions can prevail without some serious grounding in law. And in this regard we believe the legal and moral claims of human rights can be the kind of powerful, mobilizing discourse that is needed for real change. Human rights can provide a broad, flexible platform and a respected legal framework for asserting the right of everyone to a clean and healthy environment.

The Human Right to a Clean and Healthy Environment

Human rights signal a public order of human dignity, for which environmental well-being is essential. They consequently challenge and make demands upon State sovereignty and upon the parochial agendas of private elites as well. They trump most other legal obligations, being juridically more elevated than common-place ‘standards,’ ‘laws,’ or mere policy choices. And they carry with them a sense of entitlement on the part of the rights-holder, and thus facilitate legal and political empowerment.

For these and other reasons, we believe that the human right to a clean and healthy environment can be a powerful tool for imagining and securing a system of ecological governance in the common interest. But there are skeptics who say that the right does not exist except in moral terms, that it lacks the elements of authority and/or control requisite to making it count as law. Are they right? The answer is both ‘yes’ and ‘no.’

According to the law of the State system, there are at least three ways in which the human right to environment is today officially recognized juridically:

• As an entitlement derived from other recognized rights, centering primarily on the substantive rights to life, to health, and to respect for private and family life, but embracing occasionally other perceived surrogate rights as well—e.g., habitat, property, livelihood, culture, dignity, equality or nondiscrimination, and sleep;

• As an entitlement autonomous unto itself, dependent on no

more than its own recognition and increasingly favored over the derivative approach insofar as national constitutional and regional treaty prescriptions proclaiming such a right are evidence;

• As a cluster of procedural entitlements generated from a ‘re-formulation and expansion of existing human rights and duties’ (akin to the derivative substantive rights noted first above and commonly referred to as ‘procedural environmental rights’, i.e., the right to environmental information, to participation in decision-making, and to administrative and judicial recourse).

A careful review of each of these official manifestations of the right to environment around the world reveals that, however robust in their particularized applications, they are essentially limited in their legal recognition and jurisdictional reach. It also shows that, as part of our legal as well as moral inheritance, the right to environment needs to be taken extra seriously. For this to happen—indeed, for Earth itself to survive hospitably to life upon it—the right must be reimagined and reinvigorated, and as soon as possible.

Juridically, this right is most strongly recognized in its derivative form (i.e., derived from other recognized legal rights) rather than in its autonomous form (i.e., legally recognized in its own right). When framed autonomously, interestingly, the right is found to exist principally—indeed, almost exclusively—in the developing worlds of Africa, Asia and Latin America. There also is a growing sentiment (primarily at the regional level so far) to recognize procedural environmental rights.

But at bottom, it seems that as long as ecological governance remains in the grip of essentially unregulated (liberal or neoliberal) capitalism, there never will be a human right to environment—certainly not an autonomous one—widely recognized and honored across the globe in any formal or official sense.

In recent years, however, two attractive alternative approaches have emerged. The first approach (intergenerational environmental rights), though firm in legal theory, relies heavily on its ability to appeal to the moral conscience. The second (nature’s environmental rights), pioneered by the governments of Ecuador and Bolivia, chooses to alter the procedural playing field altogether. These nations assert that nature has legal rights of its own that must be defended by human surrogates.

Both these approaches go beyond the narrow anthropocentrism of existing law. In their legal character they bespeak autonomous rights rather than derivative rights. They look to claimant surrogates to enforce the rights. And they are asserted primarily at the official national and subnational levels. Politically, both approaches reflect a deep frustration with the environmental community’s conventional terms of advocacy and with the formal legal order’s deep commitments to neoliberalism.

However, barring some game-changing ecological disaster, huge economic and political forces will continue to resist these innovative legal gambits, for reasons that are both historical and philosophical. Greenkeeping governance that looks to the Commons points toward a different approach for securing a right to a clean and healthy environment. It calls for the establishment of a new procedural environmental right, the human right to commons- and rights-based ecological governance.
The Commons as a Model for Ecological Governance

A commons is a regime for managing common-pool resources that eschews individual property rights and State control. It relies instead on common property arrangements that tend to be self-organized and enforced in complex, idiosyncratic social ways. A commons is generally governed by what we call Vernacular Law—the ‘unofficial’ norms, institutions and procedures that a peer community devises to manage community resources on its own and typically democratically. State Law and action may set the parameters within which Vernacular Law operates, but it does not directly control how a given commons is organized and managed.

In this way, the Commons operates in a quasi-sovereign manner, similar to the Market but largely escaping the centralized mandates of the State and the logic of Market exchange while mobilizing decentralized participation ‘on the ground.’ In its broadest sense, the Commons could become an important vehicle for assuring a right to environment at local, regional, national and global levels. But this role will require innovative legal and policy norms, institutions and procedures to recognize and support Commons as a matter of law.

The Commons represents an advance over existing governance because it gives us practical ways of naming and protecting value that the market is incapable of doing, and, as already noted, in an essentially democratic manner. For example, the Commons gives us a vocabulary for talking about the proper limits of Market activity—and for enforcing those limits. Commons discourse helps force a conversation about the ‘market externalities’ that often are shunted to the periphery of economic theory, politics and policy-making. It asks questions such as: How can appropriate limits be set on the market exploitation of nature? What legal principles, institutions and procedures can help manage a shared resource fairly and sustainably over time, sensitive to the ecological rights of future as well as present generations?

The paradigm of greenkeeping governance is compelling because it comprises at once a basis in rich legal tradition that extends back centuries, an attractive cultural discourse that can organize and personally energize people, and a widespread participatory social practice that, at this very moment, is producing practical results in projects big and small, local and transnational.

The history of legal recognition of the Commons, and thus the commoners’ right to the environment, goes back centuries and even millennia. There were forestry conservation laws in effect as early as 1700 B.C. Pharaoh Akhenaten established nature reserves in Egypt in 1370 B.C. Hugo Grotius, often called the father of international law, argued in his famous treatise *Mare Liberum* (1609) that the seas must be free for navigation and fishing because the law of nature prohibits ownership of things that appear ‘to have been created by nature for commons things.’ Antarctica has been managed as a stable, durable inter-governmental commons since the ratification of the Antarctic Treaty in 1959, enabling international scientists to cooperate in major research projects without the threat of military conflict over territorial claims. The Outer Space Treaty of 1967 declares outer space, the moon, and other celestial bodies to be the ‘province of all mankind’ and ‘not subject to national appropriation….’

Commons have been a durable transcultural institution for assuring that people can have direct access to, and use of, natural resources, or that government can act as a formal trustee on behalf of the public interest—what we call ‘State trustee commons.’ The regimes have acted as a kind of counterpoint to the dominant systems of power because, though the structures of State power have varied over the centuries (tribes, monarchies, feudal estates, republics), managing a forest, fishery, or marshland as a commons addresses certain ontological human wants and needs that endure: the need to meet one’s subsistence needs through cooperative uses of shared resources; the expectation of basic fairness and
respectful treatment; and the right to a clean, healthy environment. In this sense, the various historical fragments of what may be called ‘commons law’ (not to be confused with the common law) constitute a legal tradition that can advance human and environmental rights. These regimes speak to the elemental moral consensus that all the creations of nature and society that we inherit from previous generations should be protected and held in trust for future generations.

In our time, the State and Market are seen as the only credible or significant forces for governance. But in fact the Commons is an eminently practical and versatile mode of governance for ecological resources, among many other forms of shared wealth. The viability of the Commons has been overlooked not just because of the persistence of the Hardin ‘tragedy’ parable and the overwhelming power of the State/Market, but because the Commons exists in so many forms and is managed by so many different types of commoners.

Imagining a New Architecture of Law and Policy to Support the Ecological Commons

For a shift to this paradigm to take place, State law and public policy must formally recognize and support the countless commons that now exist and the new ones that must be created. By such means, the State, working with civil society, can facilitate the rise of a Commons Sector, an eclectic array of commons-based institutions, projects, social practices and values that advance the policy of collective action. Extending to the Commons the legal recognition and generous backing the ‘free state’ and ‘free market’ have enjoyed for generations would unleash tremendous energy and creativity needed to provide better institutional stewardship of our planet. Such recognition of Commons could also help transform the State and Market in many positive ways, not least by checking the cronyism, corruption and secrecy that currently mark each.

If the Commons is going to achieve its promise as a governance template, however, there must be a suitable architecture of law and public policy to support it. We believe that innovations in law and policy are needed in three distinct fields:

1. General internal governance principles and policies that can guide the development and management of commons;
2. Macro-principles and policies—laws, institutions and procedures—that the State/Market can embrace to develop commons and ‘peer governance;’ and
3. Catalytic legal strategies that commoners (civil society and distinct communities), the State, and international intergovernmental bodies can pursue to validate, protect, and support ecological commons thus defined.

**General internal governance principles and policies.** Ostrom’s eight core design principles, first published in 1990, remain the most solid foundation for understanding the internal governance of commons as a general paradigm. In a book-length study published in 2010, Poteete, Janssen, and Ostrom summarize and elaborate on the key factors enabling self-organized groups to develop collective solutions to common-pool resource problems at small to medium scales. Among the most important are the following:

1. Reliable information is available about the immediate and long-term costs and benefits of actions;
2. The individuals involved see the resources as important for their own achievements and have a long-term time horizon;
3. Gaining a reputation for being a trustworthy reciprocator is important to those involved;
4. Individuals can communicate with at least some of the others involved;
5. Informal monitoring and sanctioning is feasible and considered appropriate; and
6. Social capital and leadership exist, related to previous successes in solving joint problems.

Ostrom notes that "extensive empirical research on collective action . . . has repeatedly identified a necessary central core of trust and reciprocity among those involved that is associated with successful levels of collective action." In addition, "when participants fear they are being 'suckers' for taking costly actions while others enjoy a free ride," it enhances the need for monitoring to root out deception and fraud.

If any commons is to cultivate trust and reciprocity and therefore enhance its chances of stable collective management, however, its operational and constitutional rules must be seen as fair and respectful. To this end, ecological commons must embody the values of human dignity as expressed in, optimally, the Universal Declaration of Human Rights and nine core international human rights conventions that have evolved from it or those of them as may be applicable. As this suggests, both human rights and nature's rights are implicit in ecological commons governance.

**Macro-Principles and Policies.** For larger-scale commons-pool resources—national, regional, global—the State must play a more active role in establishing and overseeing commons. The State may have an indispensable role to play in instances where a resource cannot be easily divided into parcels (the atmosphere, oceanic fisheries) or where the resource generates large rents relative to the surrounding economy (e.g., petroleum). In such cases, it makes sense for the State to intervene and devise appropriate management systems. *State trustee commons* typically manage hard and soft minerals, timber and other natural resources on public lands, national parks and wilderness areas, rivers, lakes and other bodies of water, State-sponsored research and civil infrastructure, among other things.

In such circumstances, however, there is a structural tension between commoners and the State/Market because the State has strong economic incentives to forge deep political alliances with the Market and thus promote an agenda of privatization, commoditization and globalization despite the adverse consequences for ecosystems and commoners. Any successful regime of commons law must therefore recognize this reality and take aggressive action to ensure that the State/Market does not betray its trust obligations, particularly by colluding with market players in acts of enclosure. The overall goal must be to re-conceptualize the neoliberal State/Market as a 'triarchy' with the Commons—the *State/Market/Commons*—to realign authority and provisioning in new, more beneficial ways. The State would maintain its commitments to representative governance and management of public property just as private enterprise would continue to own capital to produce saleable goods and services in the Market sector. But the State must shift its focus to become a 'Partner State,' as Michel Bauwens puts it, not just of the Market sector but also of the Commons sector.
Catalytic Legal Strategies. Perhaps the most significant challenge in advancing commons governance is the liberal polity’s indifference or hostility to most collectives (corporations excepted). Accordingly, commoners must use ingenious innovations to make their commons legally cognizable and protected. Since legal regimes vary immensely around the world, our proposals should be understood as general approaches that obviously will require modification and refinement for any given jurisdiction. Still, there are a number of legal and activist interventions that could help advance commons governance in select areas.

- Devising ingenious adaptations of private contract and property law is a potentially fruitful way to protect commons. The basic idea is to use conventional bodies of law serving private property interests, but invert their purposes to serve collective rather than individual interests. The most famous example may be the General Public License, or GPL, which copyright owners can attach to software in order to assure that the code and any subsequent modifications of it will be forever accessible to anyone to use. The GPL was a seminal legal innovation in helping to establish commons for software code.

- A number of examples of eco-minded trusts serving the interests of indigenous peoples and poorer countries could emulate private-law work-arounds to property and contract law in order to create new commons. One example is the Global Innovation Commons, a massive international database of lapsed patents that enables anyone to manufacture, modify and share ecologically significant technologies.

- The ‘stakeholder trust’ could be used to manage and lease ecological resources on behalf of commoners, with revenues being distributed directly to commoners. This model is based on the Alaska Permanent Fund, which collects oil royalties from state lands on behalf of the state’s households. Some activists have proposed an Earth Atmospheric Trust to achieve similar results from the auctioning of rights to emit carbon emissions.

- Some of the most innovative work in developing ecological commons (and knowledge commons that work in synergy with them) is emerging in local and regional circumstances. The reason is simple: the scale of such commons makes participation more feasible and the rewards more evident. Salient examples are being pioneered by the ‘re-localization movement’ in the US and UK, and by the Transition Town movement in more than 300 towns worldwide.

- Federal and provincial governments have a role to play in supporting commons formation and expansion. State and national governments usually have commerce departments that host conferences, assist small businesses, promote exports and so on. Why not analogous support for commons? Governments could also help build trans-local structures that could facilitate local and subnational commons, such as Community Supported Agriculture and the Slow Food movement, and thereby amplify their impact.

- The public trust doctrine of environmental law can and should be expanded to apply to a far broader array of natural resources, including protection of the Earth’s atmosphere. This would be an important way to ensure that States act as conscientious trustees of our common ecological wealth.

- Various digital networking technologies now make it possible to reinvent the administrative process to be more transparent, participatory and accountable—or indeed, managed as commons. For example, government wikis and ‘crowd-sourcing’ platforms could help enlist citizen-experts to participate in policy-making and enforcement. ‘Participatory sensing’ of water quality and other environmental factors could be decentralized to citizens with a stake in those resources.

Moving Forward

It might be claimed that greenkeeping governance is a utopian enterprise. But the reality is that it is the neoliberal project of ever-expanding consumption on a global scale that is the utopian, totalitarian dream. It manifestly cannot fulfill its mythological vision of human progress through ubiquitous market activity. It simply demands more than nature can deliver, and it inflicts too much social inequity and disruption in the process. The first step toward sanity requires that we recognize our myriad ecological crises as symptoms of an unsustainable cultural, socioeconomic and political worldview.

Moving to greenkeeping governance will entail many novel complexities and imponderable challenges. Yet there is little doubt that we must re-imagine the role of the State and Market, and imagine alternative futures that fortify the Commons Sector. We must gird ourselves for the ambitious task of mobilizing new energies and commitments, deconstructing archaic institutions while building new ones, devising new public policies and legal initiatives, and cultivating new understandings of the environment, economics, human rights, governance and commons.

Note. This essay is derived from a longer treatise available at The Commons Law Project at http://www.commonslawproject.org.

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