

A Law To Protect The Earth: The Tort of Ecological Degradation

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How can we restructure our law to place greater priority on environmental values? We confront this question now with increasing urgency as our growing footprint on the Earth causes mounting ecological degradation. We know the values that a restructured law must promote: maintaining functioning ecological systems, accounting for the effects of our actions on future generations, and taking environmental justice seriously. But we still have not achieved the critical task of reformulating our laws so that they will in fact promote these objectives instead of undermining them.

When environmental interests come into conflict with economic interests, our current property law (by which I mean all laws that govern our effects on the environment, including traditional rules of ownership, the liability rules of the common law, and federal and state environmental statutes) implements a very clear conception of how those conflicts should be resolved. As we shall see, that conception incorporates the goal of promoting economic activity, even where that activity externalizes environmental damage onto society. What we need is a new conception for resolving such conflicts that places a higher priority on environmental preservation, and a corresponding new legal structure that promotes this new balance of interests.

As we think about how our property law should be designed, we should recognize that, in the United States at least, property rights, private as well as public, are solely creatures of law that each generation must structure so as to best further the public welfare. Legal historians have shown that American property rights have never been fixed, but instead have been modified continuously through the centuries as our circumstances and social objectives have changed.

After briefly reviewing the structure of our existing property law and where it came from, this article presents a proposal for a new legal principle designed to preserve functioning ecological systems: a tort of “ecological degradation.”

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A. The Structure of Our Existing Property Law

Throughout most of our history, the common law has been the nation's major source of property laws. Its current structure was created during the nineteenth century by judges seeking to enable the industrialization of the United States. Those judges concluded explicitly that the public welfare was no longer best served by the ancient rule that landowners must "use their own so as not to harm another." They came, instead, to view the public welfare as being served as long as actions have a net benefit even if collateral damage sometimes occurs, and concluded that economic activity generally can claim such a net benefit. Thus, they sought to encourage economic growth by developing new legal rules designed to shield industry from the liability that was imposed by the old rules. As they overthrew the old law and invented the modern liability doctrines of negligence and nuisance, the most important step they took was to change the goal of the law from preventing people from causing harm to preventing only actions that do not produce a net social benefit. They placed the burden of proof onto plaintiffs to demonstrate that defendants' acts are "unreasonable" to make them liable for the damage they cause. Thus, the modern test for liability at common law requires plaintiffs to prove that defendants could have taken steps to prevent damage that were "cost-effective" (meaning steps whose benefits outweigh their costs); otherwise the damage is deemed "reasonable" and allowed to lie where it falls, considered an acceptable by-product of the social benefits of economic activity.

This profound redefinition of property rights, rooted in social policy objectives, effectively unleashed the Industrial Revolution, just as the judges intended. Unfortunately, it has also permitted the ecological destruction we now face. The assumption implicit in the law's current structure is not only that the economy can grow forever, but that the total accompanying cost-benefit-justified damage to the Earth can grow forever as well. Focusing on the cost-benefit justification of individual actions, the law contains no means of constraining the total scale of the ecological damage. It was invented when the world was viewed as an "empty world," with boundless pollution sinks and resources, when the atmosphere seemed infinite and there always was another forest, another river, another fishery that could be sacrificed to obtain the benefits of economic growth.

In the 1970's, the federal government stepped in with modern environmental statutes. However, since these statutes were patterned after the common law, for the most part they unfortunately harbor the common law's core structure. They implicitly adopt the presumption that favors economic activity and then, especially as administered under President Clinton's Executive Order No. 12866, require government to develop regulations that it can prove are "reasonable" (i.e., provide benefits that outweigh costs).¹ Like the common law, these statutes force environmental problems to be addressed medium-by-medium and case-by-case and do not attempt to constrain cumulative ecological damage. We all know that the federal statutes are not going to preserve the Earth, and these are the fundamental reasons why.

To be sure, some federal laws adopt environmental or health objectives, including the wetland protection and water quality goals of the Clean Water Act,² the health-based National Ambient Air Quality Standards of the Clean Air Act³ and provisions of the Food Quality Protection Act⁴ and the Endangered Species Act.⁵ Some states and local communities are going further as well, attempting to ban development in ecologically sensitive areas and adopting new approaches such as the precautionary principle. These and other laws are important steps forward, and the bitter criticism that industry reserves for them reflects their divergence from the balance of interests struck long ago by the common law.

The divergence between these more progressive steps by government and the lagging common law is, however, corrosive for our system of government through the rule of law. It encourages property owners to view environmental laws as invasions of their common law rights, as efforts by government to take their property and give it to the public. It allows property rights conflicts to be cast as a struggle of private individuals for freedom from a repressive and authoritarian government rather than what they are—a continuing democratic realignment of property rights to promote the public welfare. It fuels reactions like Oregon’s Measure 37⁶ and calls by property owners for legislatures everywhere to adhere to the rights embodied in the common law or else provide compensation.

The Supreme Court stoked these fires with the landmark 1992 takings case of *Lucas v. South Carolina Coastal Council*.⁷ In that case, a landowner claimed that South Carolina worked a taking and owed him compensation when its law to preserve fragile beachfront barred him from building houses on his land. Justice Scalia’s opinion for the 6-3 Court agreed, holding that when legislation denies an owner of “all economically beneficial or productive use of land,” the Fifth Amendment requires compensation if the legislation creates more restrictions than “background principles of the State’s law of property and nuisance already place upon land ownership.”⁸

So it came to be that the current version of the common law, developed a century ago more to promote the Industrial Revolution, has become enshrined as the source of legitimate “background principles” of property rights, the touchstone against which progressive environmental legislation must be measured (at least where it eliminates economic value). One might find dubious, as did the *Lucas* minority, this disfavoring of legislative expressions of the democratic will. After all, the Constitution nowhere defines what is and is not property, and the ultimate source of power to define property rights, including the power to overrule the common law, resides in the people, the democratic polity. But *Lucas* is the law of the land, and those who urge legislatures to adopt more progressive, ecologically-based laws know just how deeply legislatures fear working a takings that their state, like South Carolina, cannot afford.

A recent case shows just how reluctant common law judges have become to accept their historical responsibility for the public welfare. In *California v. General Motors et al.*,⁹ California’s Attorney General sued six automakers for money damages, alleging that the carbon emissions from their cars, which constitute 20 percent of U.S. greenhouse gas

emissions and 30 percent of California emissions, have created a common law nuisance. The case was brought in federal court because it implicates pollution emanating from other states, and therefore raises an issue of federal rather than state common law. It squarely charges automakers with substantial liability for the impacts of global warming on California; there could hardly be a more important social issue today.

On September 17, 2007, District Judge Martin Jenkins took his first major step in handling this important common law matter: he dismissed it. He accepted the automakers' unlikely argument that the court should not get involved in global warming because it raises "political questions" that the Constitution assigns exclusively to the political branches of government. He wrote that adjudication of California's claim would require him to balance environmental destruction with the interest in advancing industrial development, and that such balancing of competing interests is the job of the political branches of government, not courts.

This decision duplicated the 2005 dismissal by the Southern District of New York of another global warming case, *Connecticut v. American Electric Power Co.*,¹⁰ a federal common law nuisance action in which six states sued electric utilities seeking a phased abatement of their ongoing carbon emissions. These two cases, both now on appeal, harken back to the famous 1970 decision *Boomer v. Atlantic Cement Co.*,¹¹ in which the high court of the State of New York asserted that controlling air pollution is the responsibility of legislatures and not courts at common law.

Our fundamental problem is that twenty-first century realities have outrun the nineteenth century view of the world that gave rise to our current legal structure. The "empty" world assumptions of the nineteenth century are not valid in today's world, when the total cumulative impact of environmental damage is exceeding the Earth's ability to assimilate it. Each incremental impact, if taken alone, might have caused little or even no harm at all in an empty world. But under conditions of ecological overshoot each increment of damage contributes to an immeasurable, indeed infinite, loss. The loss is infinite because we need functioning ecological systems to survive on Earth, and dare not destroy them hoping we can somehow live without them, on a barren planet. This infinite cost cannot be meaningfully allocated among the various increments of damage. Cost-benefit analysis cannot be used as an analytic tool once a finite footprint has an infinite cost. Once we are degrading the environment at an unsustainable rate, attempting to justify increments of damage using cost-benefit principles is profoundly misguided and profoundly incompatible with the biological realities of life on Earth.

In *California v. General Motors et al.*, Judge Jenkins implicitly recognized that the allegations before him highlighted the limitations in the common law. He wrote that he had no guidance as to how to determine what was an unreasonable contribution to global warming or how to apportion costs among multiple sources of damage.

The solution to this problem is to alter the common law to suit our current circumstances. The rules of the common law are not inevitable, required by logic or somehow fixed for all time. Indeed, the job of judges is not to adhere to existing legal doctrine, but to

develop rules that promote the public welfare and adapt the law as necessary to reflect current circumstances. We need judges to invent new rules that respond to the central fact of humanity's modern circumstances: the Earth has a finite and limited capacity to sustain ecological damage, and to exceed this ecologically sustainable limit is to diminish the public welfare. Let us examine what such new rules might look like.

B. The Tort of Ecological Degradation

In this section, I propose a new tort of ecological degradation. This new rule of law is designed to redefine how we resolve conflicts between environmental and other interests in view of our current circumstances. It is intended to recognize that we must learn to live within the ecological constraints of the Earth, and that exceeding those constraints is to the long-term detriment of the public welfare, especially that of future generations. I focus here by way of example on the common law, but this same legal principle should be incorporated into all our law.

Ecological Degradation

Sec. 1. A person is subject to liability for ecological degradation if his or her conduct is a legal cause of an unreasonable ecological threat.

Sec. 2. An ecological threat is any effect on the natural world that may contribute to ecological degradation.

Sec. 3. An ecological threat is unreasonable unless the person whose conduct is a legal cause of the threat demonstrates by a preponderance of evidence that the threat does not contribute to ecological degradation.

Sec. 4. A person whose conduct is a legal cause of an unreasonable ecological threat may be relieved of some or all liability for ecological degradation if the person demonstrates by a preponderance of the evidence that:

(a) The person has no feasible alternative to the conduct that is likely to contribute less to ecological degradation;
and

(b) The person is conducting a vigorous program to develop such a feasible alternative.

Sec. 5. Any member of a community that may be affected by an ecological threat may bring an action for ecological degradation.

Numerous issues are raised by this proposal. I briefly discuss three of these below, but refer the reader to my article entitled *Law for the Ecological Age* for a more complete discussion of this new tort.¹²

1. Defining “Unreasonable” Acts

Perhaps the most significant issue is the definition of the acts that the law should now define as “unreasonable” and seek to prevent. One idea would be simply to expand the application of strict liability and impose it on all environmental impacts. But such a rule, if literally implemented, would make it impossible for people to live on the Earth, for we cannot exist without having some effect on the world around us. We therefore should tie potential liability more closely and specifically to what is damaging the public welfare and thereby incorporate a balancing of human interests. What we must prevent is “ecological degradation,” the biotic impoverishment and decline in the self-sustaining and self-renewing capacity of the land.

This tort recognizes that ecological degradation results often from the cumulative effect of many smaller impacts that would not cause ecological degradation by themselves. There is but one way to respond to this reality: when ecological degradation is threatened or actually occurring, all of us must be responsible for each of our acts that contributes to ecological degradation.

Thus, under this proposed law, any effect on the natural world that contributes to ecological degradation is subject to liability.

2. Allocating the Burden of Proof

A second important issue is the allocation of the burden of proof. This allocation defines the condition that the law prefers, the condition that it protects in cases of doubt. Environmental claims have become especially hard to prove, and may become even harder as ecological degradation mounts and attribution of damage to particular causes becomes more complex and difficult. Because the legal system must decide cases even when the facts are inconclusive, it is not a question of whether the law should prefer one interest or another in cases of doubt, but which interest. The law must decide what it values most in cases of doubt. Under our current circumstances, in cases involving conflicts between economic and ecological interests, the law should prioritize the ecological health of the biosphere over unimpeded economic activity.

In this proposed new tort, therefore, the burden of proof is placed on defendants whenever their conduct is the legal cause of an “ecological threat,” which is in turn defined as “any effect on the natural world that may contribute to ecological degradation.” For a defendant’s conduct to be subject to potential liability under this tort, plaintiffs must demonstrate that it causes an effect on the natural world and must adduce some body of evidence rising above the level of pure speculation that the effect may contribute to ecological degradation. On such showings, the ultimate burden of proof

would then shift to defendants to show that the effect is not likely to contribute to ecological degradation.

3. Affirmative Defense to Liability

A third issue is raised by Sec. 4 of this proposal, which provides an affirmative defense to liability. This defense recognizes the social importance of existing property rights and the need for the legal system to provide transition phases for significant new rules of law. It also recognizes that the key to reducing environmental impacts until we learn to live within the ecological limits of the Earth is for society to embark on the course of continually searching for and adopting alternative, less damaging practices. This would place our economy on the path of continuing to develop while staying within the ecological capacities of the Earth.

Accordingly, this affirmative defense focuses on whether a defendant has taken his or her stewardship obligations seriously by actively seeking less damaging alternatives. Under Sec. 4, to gain relief from liability for causing an unreasonable ecological threat, a defendant would have to prove that he or she (a) has no feasible alternative to the conduct that is likely to contribute less to ecological degradation; and (b) is conducting a vigorous program to develop such a feasible alternative. Relief could be tailored to the particular circumstances, and could include contingent injunctions, reduced damages or contingent damages.

C. Conclusion

Many issues are raised by my proposal for a common law rule imposing liability for contributing to ecological degradation, including the precise definition of key terms (e.g., “ecological degradation,” “contribute,” “legal cause,” “feasible alternative,” “vigorous program”); the standard of proof that the defendant must carry (“preponderance of the evidence,” “clear and convincing evidence,” or some other standard); whether the affirmative defense of Sec. 4 should comprise other elements; and the scope of standing to sue under this tort. Indeed, to fully implement a new tort of this nature, an entire body of law will have to be developed.

Yet, we should recall that today’s property law is the result of a long-term, comprehensive effort by the common law to define unreasonable acts in terms designed to promote economic growth in an “empty” world. We owe ourselves, and future generations, no less an effort to define unreasonable acts in terms suitable to our new circumstances, terms that will allow us to live within the ecological reality of the Earth. While the common law took well over a century to develop the modern rules of negligence and nuisance, it need not move so slowly. Although judges in a democracy cannot diverge too far from the will of the democracy, they can move quickly and even lead society once new social norms begin to arise.

The federal common law global warming cases now on appeal in the Second Circuit and Ninth Circuit constitute profound efforts to prompt common law judges to grapple with

global warming both on its own merits and as a paradigm for responding to the problem of cumulative ecological impacts writ large. All of us, future generations especially, need common law judges to use these and similar cases to move toward a rule of liability that deems it unreasonable to contribute to ecological degradation, a rule much like the proposed tort of ecological degradation.

¹ See Exec. Order No. 12866, 58 Fed. Reg. 51735 (Sept. 30, 1993), available at <http://www.archives.gov/federal-register/executive-orders/pdf/12866.pdf> (requiring each agency to “propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs”). See generally Office of Mgmt. & Budget, Circular A–4, Circular To The Heads of Executive Agencies and Establishments (2003) (providing detailed guidance on conduct of regulatory cost-benefit analysis under E.O. 12866), available at <http://www.whitehouse.gov/omb/circulars/a004/a-4.pdf>.

² 33 U.S.C. §§ 1251-1387 (2000).

³ Pub. L. No. 101-549, 104 Stat. 2399 (1990).

⁴ Pub. L. No. 104-170, 110 Stat. 1489 (codified as amended in scattered sections of 7 U.S.C. and 21 U.S.C.).

⁵ 16 U.S.C. §§ 1531-1544.

⁶ Or. Rev. Stat. Ann. § 197.352 (West 2005) (amended 2007).

⁷ Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992).

⁸ *Id.* at 1029.

⁹ California v. Gen. Motors Corp., No. C06-05755 (MJJ), 2007 U.S. Dist. LEXIS 68547, at 46 (N.D. Cal. 2007).

¹⁰ California v. Gen. Motors Corp., No. C06-05755 (MJJ), 2007 U.S. Dist. LEXIS 68547, at 46 (N.D. Cal. 2007).

¹¹ Boomer v. Atlantic Cement Co., 257 N.E.2d 870, 871, (N.Y. 1970).

¹² See *supra*, p. 1 footnote *.