

Transforming American Law to Promote Preservation of the Earth

*Joseph H. Guth, J.D., Ph.D.**

This is an outline of arguments intended to transform American law, beginning with the common law, so that it will promote preservation of the earth rather than accept environmental destruction as a byproduct of economic growth. These arguments call on the law to bridge the gap between biologists, who see us outgrowing our habitat, and mainstream economists, who foresee a future of unlimited economic growth.

I. How Common Law is Created

The "common law" is the body of law created by judges, as distinguished from law created by other authorities, such as constitutions and statutes. While judges must accept and interpret constitutions and statutes as they find them, judges must develop common law on their own. There was a time when judges believed they developed the common law by "discovering" law or by logically and inevitably deriving it from "first principles." However, since late in the nineteenth century, judges have been understood to resolve common law cases by reference not just to precedents and to logic, but also to the current social environment. This makes the common law a "battleground of social theory" in which judges have the power, indeed the responsibility, to adapt the law to changing circumstances.

II. The Current Common Law

The common law has long been called on to balance economic activity with damage to human health and the environment. Its modern structure was developed during the nineteenth century, as the Industrial Revolution arose as a dominating social force. Historically, the common law had contained two approaches to imposing liability on enterprises. One made defendants strictly liable for the damage they caused regardless of whether they were guilty of any wrongdoing, and the other let the damage lie unless defendants were somehow at fault, that is, in the wrong. But as early nineteenth century judges struggled with these doctrines, it became clear that strict liability threatened the viability of the huge new industrial enterprises that were arising.

In his famous 1881 treatise, *The Common Law*, Oliver Wendell Holmes considered the long history and various justifications for the competing principles of strict liability and

* Legal Director of the Science & Environmental Health Network (www.sehn.org). Contact at joe@sehn.org. This article was previously published as SEHN Networker vol. 11(2) (March 2006) (www.sehn.org), in Rachel's Democracy & Health News # 846 (March 16, 2006) (www.rachel.org), and on the Tomales Bay Institute blog www.onthecommons.org.

fault, and then explained why the law should not hold a "man" strictly liable for all the consequences of his acts:

“A man need not, it is true, do this or that act, -- the term act implies a choice, -- but he must act somehow. Furthermore, the public generally profits by individual activity. As action cannot be avoided, and tends to the public good, there is obviously no policy in throwing the hazard of what is at once desirable and inevitable upon the actor.”¹

Note how concisely Holmes articulates two crucial propositions, one of economics and one of legal theory. Holmes's economic proposition, that human activity generally provides a net benefit to society, was widely accepted, as exuberantly expressed in 1873 by the New York State Supreme Court:

“The general rules that I may have the exclusive and undisturbed use and possession of my real estate, and that I must so use my real estate as not to injure my neighbor, are much modified by the exigencies of the social state. We must have factories, machinery, dams, canals, and railroads. They are demanded by the manifold wants of mankind, and lay at the basis of all our civilization. [The victim] receives his compensation . . . by the general good, in which he shares, and the right which he has to place the same things upon his lands.”²

Holmes's proposition of legal theory is that because human activity is generally desirable, the law should encourage it by shielding it from liability for damage it "inevitably" causes. Well before the end of the nineteenth century, common law judges had accepted this legal theory and implemented it by crafting rules of law that would allow the Industrial Revolution to proceed.

Judges created the legal theory of "negligence" and made it the common law's principal tool for resolving civil claims, including claims grounded in environmental damage. Presuming that economic activity was desirable, they shielded defendants from liability except for any conduct that a plaintiff could prove did not provide a net social benefit. They invented a requirement that, to receive compensation for damage caused by a defendant, a plaintiff must first prove that the defendant could have prevented the damage by taking steps that were reasonable according to a utilitarian calculus. Thus, judges implemented a presumption that damage should lie where it falls and placed a burden on plaintiffs to prove that a defendant's conduct was "negligent," i.e., that the conduct resulted in "unreasonable" risk.³ "Unreasonable" risk "is usually determined upon a risk-benefit form of analysis: by balancing the risk, in the light of the social value of the interest threatened, and the probability and extent of the harm, against the value of the interest which the actor is seeking to protect, and the expedience of the course pursued."⁴ To meet this burden of proof, plaintiffs usually must identify a cost-effective alternative measure that the defendant should have adopted, such as installing a guardrail or scrubbing a waste stream. Moreover, because plaintiffs must prove that particular conduct by particular defendants caused their particular harm, the common law examines

the "reasonableness" of each particular damage-causing conduct independently, one case at a time.

Common law judges also developed the modern structure of the legal theories of private nuisance (protecting a person's interests in private use and enjoyment of land) and public nuisance (protecting rights common to the general public). As reflected in the 1873 New York State opinion quoted above, judges saw the need to shield enterprises from liability in nuisance rather than follow some of the older cases that were intolerant of industrial invasions of lands and other interests. They came to require plaintiffs to prove, as in negligence, that the damaging conduct was "unreasonable" according to utilitarian principles.

Strict liability has become disfavored in modern common law, though it has not been eliminated. It is now generally confined to a few forms of conduct, including narrowly defined "abnormally dangerous" activities (such as blasting), sale of defective products, and some forms of trespass to land.

Thus, according to the core structure of its predominant doctrines, negligence and nuisance, the common law intentionally presumes that damage to the environment should lie where it falls, without compensation even if the defendant can afford to pay, unless a plaintiff can prove that the defendant's conduct was to society's net detriment (i.e., that the damage was avoidable by cost-effective measures). It is this core structure that presents the greatest barrier to protection of the environment by the common law. This core structure must be changed.

III. The Environmental Statutes Contain the Same Core Structure as Does the Common Law

Some historians argue that the law shifted during the nineteenth century from an earlier grounding in strict liability as one element of a many-faceted transformation in the legal system sought by powerful interests in order to shift wealth and power from weaker elements of society to commercial and entrepreneurial groups.⁵ Indeed, the common law did come to contain many impediments, besides the core structure of its predominant doctrines, to the ability of plaintiffs to obtain compensation for damage caused even by "unreasonable" conduct. These include refusing liability unless defendants are deemed to bear a legal "duty" to plaintiffs, limiting liability for damages to harm deemed to be both "proximately caused" by and "foreseeable" from the defendant's conduct, requiring that damage be "substantial" to be compensable, and many others. More recent impediments include judicial demands for "sound science," secret settlements, and financial influence in science and the judiciary.⁶

Reacting to the obvious limitations in the ability of the common law to protect the environment, the federal government enacted numerous environmental statutes beginning in the late 1960s. These statutes overcame some of the impediments of the common law and have enabled a measure of environmental protection that the common law could not. But, with few exceptions, the environmental statutes embody the same economic and

legal propositions that lie at the core of the common law. Most of these statutes provide the administrative agencies not with plenary authority to protect public health and the environment but with only the authority to take "reasonable" or "cost-justified" protective actions (exceptions include the "fishable" and "swimmable" water quality goals of the Clean Water Act; the health-based standards for specific "criteria" pollutants under the Clean Air Act; and the "reasonable certainty of no harm" standard for pesticide food tolerances under the Food Quality Protection Act). Executive Order 12866 (Clinton, 1993), rigorously enforced by the White House's Office of Management and Budget, requires all regulations promulgated by executive agencies to cost less than the value of the avoided damage, unless a particular statute requires otherwise. Thus, like the common law, the federal environmental statutes generally permit environmental damage unless the government can prove that the damage is avoidable by cost-effective measures.

IV. Environmental Protection Now Turns On Cost-Benefit Calculations

Environmentalists, biologists, and public health advocates can demonstrate many forms of substantial industrial damage to human health and the environment, but this alone does not meet the burdens of proof imposed by the law. Today's legal battles to protect the environment are fought almost entirely on the circumscribed battleground of whether protective steps can be justified by utilitarian cost-benefit calculations. In each calculation, an increment of damage to the environment is monetized and then traded off against other monetized costs and benefits, with no limit on the total amount of damage that can be justified. Environmentalists and industry are in bitter conflict over the value-laden assumptions that underlie these calculations. Industry resists even "cost-effective" regulations because industry bears the direct costs of environmental protection while the benefits accrue to society. Society has little confidence in the regulatory decisions resulting from this system but is so locked into Holmes's two propositions that the case for applying cost-benefit analysis to environmental risks can seem compelling: Why shouldn't we pursue activities that create net benefits, even if they cause some environmental risks or even damage? Why shouldn't we require that regulations be "reasonable"? Why should we worry more about environmental damage than about other types of risk? Wouldn't that cause us to forgo many activities that would have a net social benefit? Overall, isn't it sensible to let economic development proceed while we develop the best possible cost-benefit calculations?

V. Unleashing the Industrial Revolution Onto An Empty World

The core structure of the common law was adopted when the world was viewed as an "empty world," in which the human impact on the environment was small compared to the assimilative capacity of the earth as a whole. Since then, Holmes's propositions have become embedded in our entire political economy. This can be seen in our obsessive commitment to permanent growth in the Gross National Product (GNP), which is grounded in the belief that GNP measures human welfare. Reflecting an abiding faith in the net social benefit of economic activity, GNP measures only the total dollar value of all goods and services produced each year and makes no effort to deduct the accompanying environmental costs. GNP incorporates no deduction for depletion of

natural resources or damage to human health, the environment, or many other components of any true vision of human welfare. It counts liquidation of resource stocks such as oil, forests, and fisheries solely as positive contributions to GNP. Even defensive expenditures such as environmental remediation and medical costs for industrially caused disease are recorded as positive contributions to GNP, with no debit for the underlying damage. By failing to include these losses in our GNP accounting, our commitment to growth in GNP deludes us into accepting losses not just when they appear justified, as they did to Holmes, but also as they continue to mount, no matter how serious they become.

The free market, the engine of GNP growth, is structured in the same way. If a resource carries a price, the free market can reduce use of that resource once it becomes scarce by causing the price to rise, but the market contains no mechanism for preventing its scarcity. Today's neoclassical economists tell us not to worry about this because they believe, as an article of faith, that we will always be able to overcome resource scarcity by deploying technology and accumulated capital to find substitutes. Perhaps more important, the free market comprises no markets or prices for the clean air, water, or other vital resources of the commons that industry now uses as pollution sinks. Industry pollutes the commons for free, externalizing onto society this cost of industrial production. Because industrial damage to the commons is not reflected in the price of goods and services, the market can only encourage environmental damage and cannot discourage or prevent it. With the law intentionally shielding industry from most liability for this damage, the market drives us without restraint to exhaust the pollution sinks and the resources our economy feeds upon.

This political economy has unleashed astonishing growth in GNP over the first two centuries of the Industrial Revolution. While global population has grown 6-fold since 1800, global GNP has grown even faster, rising 50-fold in the last 180 years.⁷ But this is only the beginning. In the neoclassical economics that dominates public policy today, no theoretical limit exists to the potential size of GNP, and massive further growth is the only accepted solution to global poverty. The world population, most of which is poor, will grow to 8-10 billion by 2050. Economists expect GNP, even in rich countries with stable populations, to continue to grow at about 3% per year (doubling every 25 years). The World Bank projects that world GNP will quadruple by 2050.⁸ Can we expand U.S. and world GNP by 50-fold again (5 to 6 more doublings) in the next 180 years? Our current political economy, driven by an insatiable consumer culture, the desperate needs of the world's poor, and resistance to significant redistribution between rich and poor, is giving us no other option but to try.

VI. Our New Circumstances: The Finite Size of the Earth

Today we can see that we no longer live in an empty world. The biosphere appears now as a shockingly thin film on the surface of the earth, and it is the only habitable place we know in a forbidding universe. It contains only so much air, so much fresh water, so much arable land, so much room for us to share with all the rest of life. The earth and its interdependent ecosystems can assimilate only so much pollution per year, and we see

that the various forms of environmental damage we visit upon the earth do not occur in isolation but form a networked web of assaults, each compounding the effects of the others. Because it is finite, the biosphere can withstand only so much sustained environmental damage before becoming biotically impoverished, with decreased ability to sustain life, including us.

As our GNP grows forever, the accompanying cost-benefit-justified damage to the environment, which also grows forever, will inevitably reach and surpass the rate of environmental damage that the earth can sustainably assimilate. Environmental damage at a rate beyond the earth's assimilative capacity will inexorably diminish and eventually devastate the earth's biosphere. Along this path, we can foresee that the earth's decreasing assimilative capacity, in a vicious feedback loop, will accelerate the biosphere's decline. Many of the losses, such as diminished biodiversity will be unrecoverable in any timeframe relevant to us. Some perceived long ago that we would surpass this assimilative limit. Others, sequestered in privileged refuges, will refuse to see it until the last tree is felled. But the key to protecting the environment from the juggernaut of GNP growth is to accept that a physical, inescapable limit exists to the earth's assimilative capacity for environmental damage, and that this limit is upon us.

The consequences are profound for our economic and legal systems. Beyond the earth's sustainable assimilative limit, each increment of sustained environmental damage will have an adverse effect on the environment and on human welfare that is far greater than the effect it would have in an empty world. Eventually, further GNP growth accompanied by environmental damage that might have been justifiable on an empty- world, cost-benefit basis, must actually become "anti-economic," decreasing rather than increasing human welfare. To prevent both the impoverishment of the earth and anti-economic GNP growth, we must limit our total cumulative scale of environmental damage. This constraint in scale, as explained by former World Bank economist Herman E. Daly, must be imposed from outside the market system because it is determined by the size and nature of the earth itself.⁹ If we accept this constraint, we should still be able to increase economic productivity, though not while mindlessly also increasing the scale of environmental damage. Instead, we would seek perpetually to reduce environmental damage per unit of productivity. We may even be able to increase true human welfare indefinitely, as long as we are inventive enough. Cost-benefit analysis might help us choose among alternatives as we develop a less damaging economy. But we could no longer justify environmental damage by monetizing it and trading it off on an equal footing with other monetized costs and benefits, for this dooms us to limitless environmental destruction in the quest for limitless benefits. Environmental damage must be preferentially avoided because it alone must be capped.

This shift in focus is happening. Progressive economists are beginning to create measures of human welfare that include the value of resource stocks, human health, the state of the environment, and other factors, and some have concluded that growth in GNP has already become anti-economic.¹⁰ We are fitfully developing systems for imposing caps on emissions of some pollutants, such as sulfur dioxide and carbon dioxide, and for maintaining stocks of resources such as wetlands and fisheries. The precautionary

principle is emerging as a tool for focusing environmental decisions on avoiding unnecessary damage. Alternative, greener technologies are struggling for a place in the market.

VII. The New Structure of the Law

Containing the damage to the earth is the most important task facing humanity. The rules of law spawned by Holmes's two propositions must be overturned to the extent they govern liability for environmental damage. The law must be transformed so that the earth's limited assimilative capacity will operate as a real constraint on our economy. This transformation in the law can begin with common law judges, who are called on now, as they have been for centuries, to adjust the law to changing circumstances.

Now that the limits to the earth's assimilative capacity for environmental damage are upon us and we can foresee anti-economic growth in GNP, judges cannot mindlessly continue to ground our law in a presumption favoring all economic activity. Judges must now presume that we must limit the scale of our environmental destruction by acting to avoid it wherever possible. To accept this new presumption, judges need not first measure precisely the assimilative capacity of the earth or determine exactly when GNP growth becomes anti-economic. Nineteenth century judges needed no mathematical proof that economic growth was desirable before implementing their sweeping rules of law. Today's judges need only comprehend the reality of the limits we face and perceive that the preservation of the earth has become an ethical, moral, and economic imperative. One can imagine such judges, in crafting new rules of law, decrying environmental destruction with the same profound sense of urgency that the New York Supreme Court expressed in embracing economic development in 1873.

To act on this new presumption, it is plain that the law must turn its shield from protecting actors from liability to protecting the environment from destruction. First, judges must now presume that defendants, not plaintiffs, should bear the burden of environmentally damaging conduct. Second, this burden must be sufficient to deter environmental destruction and promote development of less damaging forms of production. Judges have many tools available in crafting such rules of law, and the touchstone for calibrating their proper strength must be whether they are sufficient to protect the earth. Judges can make defendants strictly liable for environmental destruction. They can ensure that the measure of damages is sufficient to drive vigorous development of safer alternatives. They can impose liability if a defendant has failed to employ a less damaging alternative. They can develop legal preferences to further disfavor economic activities that do not materially improve human welfare. While such rules may seem burdensome to defendants, they will build the shield for the environment that we now must have, and they are not unlike the burdens judges placed on plaintiffs long ago when they thought the world was empty.

Environmental laws governed by other authorities, such as statutes and constitutions, must be rewritten as well. Meanwhile, judges should, where reasonable, interpret existing laws in ways that further the new overriding imperative of protecting the earth.

These transformations in the law would cause our market economy to conform to the real, inescapable constraints imposed by the finite capacities of the earth, deter environmental destruction, and motivate a relentless drive to develop less damaging forms of economic production. Under such a political economy, perhaps we could indeed continually increase human welfare and still preserve the earth and all its benefits.

NOTES

¹ Holmes, O.W., *The Common Law*, Lecture III, p. 95 (Dover Publications 1991) (originally published in 1881).

² *Losee v. Buchanan*, 51 N.Y. 476, 484 (1873).

³ *Restatement (Second) of Torts* § 291 (American Law Institute 1979).

⁴ Keeton et al., *Prosser and Keeton on Torts*, § 30 (pp. 164-65), § 31 (p. 173), 5th Edition (West 1984).

⁵ Horowitz, M.J., *The Transformation of American Law 1780-1860*, pp. 63-108 (Harvard University Press 1978).

⁶ Raffensperger, C. and Myers, N., "Detox for Torts: How to Bring Justice Back to the Tort System," SEHN White Paper (2003) (available at www.sehn.org/law.html).

⁷ Angus Maddison, *The World Economy: a Millennial Perspective*; p. 261, Table B-18 (OECD 2001).

⁸ *Responsible Growth for the New Millennium*, pp. 1-3 (World Bank 2004).

⁹ Daly, H.E., *Beyond Growth* (Beacon Press 1996).

¹⁰ "Sustainability Indicators," *Redefining Progress* (available at www.rprogress.org); Daly, H.E. and Farley, J., *Ecological Economics*, pp. 233-44 (Island Press 2004).