

45. Environmental Protection

Congress should

- replace the command-and-control regulations imposed by the Clean Air and Clean Water Acts with emissions trading regimes;
- replace the Federal Insecticide, Fungicide, and Rodenticide Act and the Toxic Substances Control Act with a consumer products labeling program under the auspices of the Food and Drug Administration;
- repeal the Comprehensive Environmental Response, Compensation, and Liability Act and privatize the cleanup of Superfund sites;
- replace the Resource Conservation and Recovery Act with minimal standards for discharge into groundwater aquifers;
- privatize federal lands by granting ownership rights to existing users and auctioning off the remaining lands;
- eliminate federal subsidies and programs that exacerbate environmental damage; and
- replace the Endangered Species Act and section 404 of the Clean Water Act with a federal biological trust fund.

Federal environmental policy is horribly off track, and the debate over what to do about it is characterized by a lack of rigorous thinking. Any discussion of how to reform this or that statute must begin with a discussion of why the statute is there in the first place. Only then can an informed discussion begin about the appropriate role of government in environmental protection. The details of that role must, of necessity, come last.

The Theory of Environmental Regulation

Air sheds, watersheds, groundwater, scenic lands, and ecologically important but sensitive ecosystems are widely considered “public goods.”

That is, in an unregulated marketplace, people who pay to “consume” environmental goods and services (say, those who purchase a conservation easement for an ecologically important wetland) are unable to keep those who don’t pay from enjoying the benefits of that purchase. This leads to widespread “free riding” and less-than-efficient investments in environmental goods.

This “market failure” necessitates government intervention. While there are numerous ways that the government could intervene in environmental marketplaces to address market failure, the method employed by the federal government is public ownership of air, water, and subsurface resources as well as of some sensitive ecosystems. Congress exercises its power over those resources by delegating to executive agencies the authority to determine how resources can and can’t be used—that is, by establishing pollution and public land use regulations—usually, but not always, on the basis of assessments of human health risk. The Environmental Protection Agency (EPA) is further empowered to determine the exact manner in which regulated entities are to go about meeting pollution standards—usually, but not always, dictating the installation of particular control devices or technologies.

Accurate, timely, and accessible information about environmental exposures is also considered by some to be a public good. Absent such laws as the Toxic Substances Control Act and the Federal Insecticide, Fungicide, and Rodenticide Act, individuals, some people think, would be unable to effectively police their exposures to dangerous chemicals. A variation of this argument contends that it is so costly and time-consuming for people to gain access to the environmental health information necessary for intelligent decisionmaking that government must act in the individual’s stead and make those decisions for society as a whole.

Debates about the regulation of pollution generally begin with an acceptance of the above claims. The political arguments today are over the details:

- Do concentrations of chemical *x* in the environment truly pose a health risk to the public? If so, we regulate. If not, we don’t.
- Should environmental regulations have to pass a cost/benefit test?
- Should government tell firms exactly how to go about meeting federal environmental standards, or should government simply dictate the permissible concentration of pollutants in a given air shed or watershed and allow firms some degree of flexibility in complying with those standards?

- How stringently should regulations be enforced, and who should do the enforcing—the EPA, state governments, environmental organizations through third-party lawsuits, or some combination of the three?

Debates over public land issues are less complicated but just as heated. Both the political left and the political right accept the idea that public ownership of scenic lands and sensitive ecosystems is necessary to address the inability to fully prevent free riders from enjoying the benefits of the conservation activity of others.

For example, many if not most Americans would pay some money to ensure that the Grand Canyon remains unexploited for commercial purposes. Yet only a subset of those Americans might contribute money for that purpose because they know that others will do so. Environmentalists thus worry that, without public ownership of land, the incentive to free ride on the activism of others will lead to a suboptimal provision of ecological preservation.

The Real Environmental Debate

Although environmental debates sound like they're arguments about science and public health (with a smattering of economics tossed in), they're really debates about preferences and *whose* preferences should be imposed on society. Although participants argue that "sound science" ought to determine whose preferences determine the standards (and that *their* science is better than their opponents'), science cannot referee the debate.

Consider the dispute about the regulation of potentially unhealthy pollutants, the central mission of the EPA. The agency examines toxicological and epidemiological data to ascertain the exposure level at which suspect substances impose measurable human health risks. Even assuming that such analyses are capable of providing the requisite information (a matter, incidentally, that is hotly debated within the scientific and public health community), who is to say whether one risk tolerance is preferable to another?

The amount of resources one is willing to spend on risk avoidance is ultimately subjective. Everyone's risk tolerance is different. Scientists can help inform our decisions, but they cannot point us to the "correct" decision.

Should experts—acting on behalf of regulatory agencies—decide what sort of environmental quality people should or should not have a right to

consume? In no other area of the economy do scientists have the power to rule in such a manner. After all, people are allowed to consume all kinds of things—power crystals, magnets, age-defying vitamins, and organic food—that scientists, doctors, and public health officials think are silly or even potentially counterproductive.

Many people, perhaps even a majority of voting Americans, want to secure cleaner air and cleaner water regardless of whether those improvements significantly reduce human health risks. Under the present political regime, however, no such improvements can occur without some alleged scientific justification. That is why people who wish to improve environmental quality are forced to embrace whatever science they can—no matter how dubious—to get what they want. They should not, however, have to engage in such scientific gymnastics to secure desired goods or services.

The debate over public land use is likewise garbed in the dubious cloth of science. How do we know whether public lands are more “valuable” if left wild than if developed in some way? While there are methods, such as contingent valuation surveys, to measure the “existence value” of any particular parcel of land, they yield highly dubious information for the simple reason that what people *say* they’re willing to pay in surveys rarely comports with their actual behavior in the marketplace.

Likewise, there’s no objectively correct way to measure the economic benefits provided by certain ecological services (such as water filtration services provided by wetlands) because so many of the resources affected are, at the moment, outside the marketplace. The debate, again, is more a battle of subjective preferences than a battle of ecological economics simply because the information necessary to inform the latter is unobtainable by government.

The Case for Preference Neutrality

A government that is fully respectful of the rights of individuals to live their lives as they wish (as long as they respect the rights of others to do likewise) would be neutral regarding the subjective preferences of citizens. People who are more risk tolerant than others should have a right to exercise their preferences, and those who are less risk tolerant than others should have that same right. This reasonable premise has some striking policy implications because the present order is most definitely *not* neutral regarding environmental preferences.

Preference neutrality works well when it comes to the consumption of private goods, such as those regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). It does not work well, however, when it comes to the consumption of public environmental goods, which pose a far more difficult problem. Within the same city, for instance, one person cannot exercise his preference for cleaner air without infringing upon another's preference for air quality as it is at present. After all, nothing is free, and people vary (legitimately) in their willingness to trade off environmental goods and services for other goods and services.

A policy founded on preference neutrality requires that we do as little violence to minority preferences as possible. Since some majority will, of necessity, be imposing its preferences on some minority, the only way to provide safeguards for minority preferences is to require some sort of supermajority consensus before decisions about public goods are made.

Reform the Clean Air and Clean Water Acts

As noted earlier, within limits, there are no right or wrong air or water quality standards. Political leaders need not constantly war over those issues. Accepting public preferences for cleaner air and water—even without sufficient scientific justification—still leaves a great amount of room for productive reform.

End Command-and-Control Regulation

There is little reason for government to prescribe exactly how firms are to go about complying with pollution standards. Command-and-control regulations, which require regulators to determine exactly which technologies and what manufacturing methods are to be adopted for pollution control in every single facility in the nation, place on public officials informational requirements that are impossible to meet in the real world. This task is complicated by the fact that every air shed and watershed has different carrying capacities for different pollutants.

Individual plant managers have better incentives to discover the most efficient ways to control pollution at their facilities than do EPA technicians and consultants. That is the case, not only because those managers have more direct knowledge of their facilities and the technology of production, but because competition forces cost minimization, and even the most

dedicated EPA official isn't going to lie awake nights searching for new solutions to pollution control problems.

Economist Tom Tietenberg reports that empirical studies show that “performance-based” standards—those that require regulators simply to decide how much pollution can be allowed from a facility and leave it to the facility to meet that standard in whatever way it desires—result in uniformly lower control costs. A 1990 joint Amoco-EPA study of a Yorktown, Virginia, oil refinery, for instance, found that federal environmental standards could be met at 20 percent of current costs if the refinery were allowed to adopt alternatives to EPA mandates.

The only real objection to performance-based regulation is that policing compliance is problematic. That's because regulatory flexibility requires credible monitoring data to ensure compliance. Yet comprehensive monitoring produces reams of data that are difficult for regulators to thoroughly assess. Monitoring can also be extremely expensive, which gives firms an additional incentive to circumvent the law. Environmentalists support the present command-and-control regime because technology-based standards are easier to police than are actual emissions.

Still, the excessive regulatory costs associated with technology-based standards and the rent-seeking mischief that naturally results from such regimes have persuaded most environmental economists that the economic gains promised by regulatory flexibility more than offset the increased difficulty of policing compliance. Experiments with such market-oriented reforms—for example, the sulfur emissions trading program instituted by the 1990 Clean Air Act amendments to address acid rain—have not resulted in any increase in regulatory noncompliance. The cost of beefing up the EPA compliance office is tiny compared with the gains produced by regulatory flexibility.

Establish Air and Water Emission Trading Regimes

Most economists agree that allowing polluters (and other interested parties, such as environmentalists) to buy and sell emissions credits is the best mechanism for efficiently instituting performance-based regulation. For each currently regulated pollution shed, government would initially grant emissions credits to each polluter on the basis of that firm's present discharge rates or, alternatively, would auction off a volume of emissions credits reflecting present gross discharges. After those initial emissions credits were distributed, anyone could buy or sell them. People who wished to reduce environmental pollution could purchase emissions credits from

polluters and “retire” them from the market. Businesses that wished to increase emissions could purchase additional credits from existing credit holders.

The standard objection to emissions trading is that it gives polluters the “right” to pollute. But polluters already have the “right” to pollute under the present system so long as the pollution is below the permissible threshold. It should make little difference to environmentalists whether plant A, B, or C is increasing or decreasing emissions as long as the gross amount of pollution within a particular pollution shed is below a specified level.

Governmental bodies, of course, would retain the right to either add to or subtract from the number of emissions credits in the market in order to compensate for changing economic or environmental conditions. If the former were necessary (because of, say, a monopolist hoarding credits to prevent competitors from entering the market), new emissions credits could be printed and auctioned off to the highest bidder. If the latter were necessary (because of, say, increased public support for a cleaner environment), existing credits would be purchased from private holders with tax money.

Repeal FIFRA and TSCA

A policy of preference neutrality would be most easily applicable to consumer preferences that do not directly affect the rights of others to exercise alternative preferences (so-called private goods). TSCA and FIFRA impose politically derived risk preferences (and their related costs) on individuals without respect for those who are more risk tolerant than the political majority. Accordingly, both statutes should be abolished.

Of course, some people argue that the cost of obtaining good risk information is too great. That’s not altogether obvious (a plethora of private, third-party reporting organizations, such as Underwriters Laboratories, Consumers Union, Green Seal, various kosher and halal food certification groups, the Better Business Bureau, and the Good Housekeeping Institute, are well-known and on the job today), and there are remedies available beyond the uniform imposition of politically derived risk tolerances. Mandatory labeling standards—perhaps accompanied by Food and Drug Administration advisories—would address the concern about this alleged market imperfection and do minimal violence to the marketplace and the

rights of individual consumers (for a detailed discussion of this recommendation, see Chapter 43).

Repeal CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as “Superfund,” addresses the potential risks posed by the past disposal of hazardous wastes. Most scientists and public health officials agree that the risks posed by sites not yet cleaned up under CERCLA are virtually nonexistent. Although those sites might pose a hazard if they were converted to different uses—say, if a school with a dirt playground were built on top of an old Superfund site—such concerns are easily addressed by not converting such sites to problematic uses.

In reality, CERCLA is an extremely expensive land reclamation project, dedicated to turning contaminated land, which at present poses little danger of harm to nearby residents, into land as pure and clean as the driven snow. Congress should acknowledge that some sites are simply not worth reclaiming; containment and isolation should be permitted as an alternative.

Accordingly, CERCLA should be abolished. Superfund sites and potential Superfund sites that have yet to be addressed should be privatized in a reverse Dutch auction in which government offers to *pay* potential bidders for assuming ownership of and responsibility for the land. The amount offered escalates until some private party is willing to accept the deal. Owners would then assume full liability for any future damage that might occur; that would set up the proper incentives for the private remediation or isolation of potentially dangerous environmental contaminants.

Repeal RCRA

The Resource Conservation and Recovery Act (RCRA) regulates the commercial use and disposal of potentially toxic chemicals primarily as a means of protecting groundwater aquifers from contamination. Yet RCRA is not necessary to remedy any traditional environmental market failure.

Groundwater aquifers are not a public good. Ownership is easily created through unitization, the same means employed by owners of oil wells to allocate property rights across geographically disperse fields.

Owners of aquifers are quite capable of restricting consumption to people who pay for water and policing the integrity of their aquifers through the tort system.

But even if groundwater resources remain in government hands, there's little reason for such incredibly prescriptive and excessively costly regulations as the kind imposed by RCRA, a statute that stipulates detailed cradle-to-grave management standards for thousands of substances. Better to repeal RCRA and replace it with a minimal discharge standard. That is, prohibit significant discharges of pollutants (as defined by government) into groundwater and impose heavy fines and penalties—perhaps even shutdown orders—on firms discovered to be in violation of the standard.

A requirement that potential dischargers maintain special liability insurance further ensures that firms have strong incentives to minimize the chance of contamination (insurance companies would be reluctant to issue coverage to those whose practices put the insurance company at risk). Public groundwater monitoring costs would be borne by industry, preferably through a special tax levied on the purchase of liability coverage.

Privatize the Federal Lands

Fully 29 percent of all land in the United States—662 million acres—is owned by the federal government, and 95 percent of those acres are under the control of either the Department of the Interior or the Department of Agriculture. Those holdings are concentrated in 11 western states. For example, 82 percent of Nevada, 68 percent of Alaska, 64 percent of Utah, 63 percent of Idaho, 61 percent of California, 49 percent of Wyoming, and 48 percent of Oregon are owned by the federal government.

The federal government also owns a vast estate of commercially marketed resources: 50 percent of the nation's softwood timber, 12 percent of grazing lands, and 30 percent of all coal reserves. Approximately 30 percent of the nation's coal production; 6 to 7 percent of domestic gas and oil production; and 90 percent of copper, 80 percent of silver, and almost 100 percent of all nickel production are from federal lands.

That state of affairs is far more disturbing than most observers realize. First, as University of Colorado law professor Dale Oesterle observes,

“The federal ownership of large amounts of land, much of it with significant commodity producing potential, puts the federal government at the core of our national market system, affecting the prices in nationally significant markets and myriad down-stream products.” Indeed, the federal government owns a very large slice of the country’s means of production, which fundamentally subverts the free-market system.

Second, the federal government is an extremely poor manager of resources. The cost of its grazing, timber, and water management programs greatly exceeds the commercial revenues. As virtually all ecologists concede, the federal government has been a horrible steward of environmental resources. Subsidies for both commercial and recreational industries have distorted markets (sometimes dramatically) and done great harm to the ecosystems of the West.

The most neutral way (from a wealth standpoint) to divest public lands is to recognize the implicit claims that different groups of citizens have on the federal estate. Lands at present devoted to the national parks and recreation would be simply given to nonprofit organizations representing such users. Lands now devoted to resource industries—such as the public grazing lands and forests traditionally devoted to timber operations—would be given to present permit holders and users. Lands that are supporting mixed uses or no use at all would be auctioned off over a set period of time. Every American would be issued an equal share of land scrip, which would be redeemable only in a public land auction. Individuals would be free to buy, sell, or donate their scrip as they pleased, but only the government-issued scrip would be accepted as currency during the land auction.

The virtue of this reform is that it minimizes conflict by accepting current political arrangements regarding public resource use, and it also allows those arrangements to change via postauction exchange. The benefits of privatization would be captured entirely by the American people.

End Subsidies for Resource Exploitation

The foremost engine of environmental destruction in America today is not the private sector but federal and state government. A great deal of environmental harm could be alleviated by eliminating the subsidized use of natural resources.

Five “Brownest” Programs in the Budget

- Agricultural subsidies are responsible for excessive pesticide, fungicide, and herbicide use with corresponding increases in non-point-source pollution.
- Sugar import quotas, tariffs, and price-support loans sustain a domestic sugar industry that might not otherwise exist; the destruction of the Everglades is the ecological result.
- Electricity subsidies via the power marketing administrations and the Tennessee Valley Authority artificially boost demand for energy and thereby are responsible for millions of tons of low-level radioactive waste and the disappearance of wild rivers in the West.
- Irrigation subsidies and socialized water services, which generally underwrite half of the cost of consumption, have done incalculable damage to western habitat while artificially promoting uneconomic agriculture with all the attendant environmental consequences. They also lead to tremendous overuse of water resources and worsen periodic shortages.
- Federal construction grant projects—such as the river maintenance, flood control, and agricultural reclamation undertakings of the Army Corps of Engineers—allow uneconomic projects to go forward and cause an array of serious environmental problems.

Repeal the Endangered Species Act

As Chapter 20 argues, compensating property owners for takings meant to secure public goods such as biological diversity is a simple matter of fairness and constitutional justice. But protecting property rights is also a necessary prerequisite for ecological protection. Property owners who expect to experience economic losses if their property is identified as ecologically important are tempted to destroy that habitat or species population before public officials become aware of its existence. Numerous analysts, from people at the National Wilderness Institute to ecological economist Randal O’Toole, conclude that the “shoot, shovel, and shut up” dynamic largely explains why the Endangered Species Act (ESA) has failed to either stabilize listed populations or return a single species to health.

The ESA, which prevents private property owners from making certain uses of their land in order to secure the “public good” of biological

diversity, should thus be repealed since it provides no compensation to landowners for public takings. Instead, a federal biological trust should be established that would be funded out of general revenues at whatever level Congress found appropriate. The trust fund would be used to purchase conservation easements (in a voluntary and noncoercive fashion) from private landowners in order to protect the habitat of endangered species.

The virtue of such a reform is that landowners would have incentives rather than disincentives to protect species habitat. Moreover, the cost of biological preservation would become more transparent, which allows better-informed decisionmaking about the use of resources. Finally, such a reform would decriminalize the “ranching” of endangered species for commercial purposes. The ESA prohibits such practices out of a misguided belief that any commercial use of an endangered species inevitably contributes to its decline. Yet the experience of the African elephant and other threatened species belies that concern and strongly suggests that, if private parties are allowed to own and trade animals as commodities, commercial demand is a critical component of population protection.

Similarly, section 404 of the Clean Water Act—the provision that ostensibly empowers the EPA to regulate wetlands—should be repealed. Like the ESA, it takes private property out of otherwise inoffensive uses for a public purpose and provides disincentives for wetland conservation. Protection of wetlands habitat should be left to the federal biological trust fund.

The “Greenest” Political Agenda Is Economic Growth

There are a number of reasons why economic growth is perhaps the most important of all environmental policies. First, it takes a healthy, growing economy to afford the pollution control technologies necessitated by environmental protection. A poorer nation, for example, could scarcely have afforded the nearly \$200 billion this nation has spent on sewage treatment plants over the past 30 years.

Second, growing consumer demand for environmental goods (parks; recreational facilities; land for hunting, fishing, and hiking; and urban air and water quality) is largely responsible for the improving quantity and quality of both public and private ecological resources. Virtually all analysts agree that, for the vast majority of consumers, environmental amenities are “luxury goods” that are in greatest demand in the wealthiest societies. Economic growth is thus indirectly responsible for improving environmen-

tal quality in that it creates the conditions necessary for increased demand for (and the corresponding increase in supply of) environmental quality.

Third, advances in technology, production methods, and manufacturing practices—both a cause and a consequence of economic growth—have historically resulted in less, not more, pollution. Even advances in nonenvironmental technologies and industries have indirectly resulted in more efficient resource consumption and less pollution.

Conclusion

Science can inform individual preferences but cannot resolve environmental conflicts. Environmental goods and services, to the greatest extent possible, should be treated like other goods and services in the marketplace. People should be free to secure their preferences about the consumption of environmental goods such as clean air or clean water regardless of whether some scientists think such preferences are legitimate or not. Likewise, people should be free, to the greatest extent possible, to make decisions consistent with their own risk tolerances regardless of scientific or even public opinion.

Policies that override individual preferences in favor of political preferences are incapable of pleasing a majority of people or resolving subjective disputes. No matter what environmental risk thresholds are set, only people at the political mean will be pleased. The best we can do when it comes to the governance of public goods is to establish mechanisms that allow people the right to secure their preferences to the greatest extent possible.

The way to efficiently accomplish that task is to establish markets that allow people to buy and sell the right to use what are now public resources. To whom those rights are initially distributed does not matter from an economic standpoint or from a philosophical standpoint because no one group has any better claim than another to exploit public goods. It does, however, matter from a wealth standpoint: some parties will win and some will lose depending on the method of divestiture chosen. The path of least political resistance is to acknowledge current resource use arrangements at the beginning of the reform process.

Suggested Readings

- Anderson, Terry, et al. "How and Why to Privatize Federal Lands." Cato Institute Policy Analysis no. 363, December 9, 1999.
- Bailey, Ron, ed. *Earth Report 2000*. New York: McGraw-Hill, 2000.
- Beckerman, Wilfred. *Through Green-Colored Glasses: Environmentalism Reconsidered*. Washington: Cato Institute, 1996.

- Cowen, Tyler. *A Theory of Market Failure: A Critical Examination*. Fairfax, Va.: George Mason University Press, 1988.
- DeLong, James. "Privatizing Superfund: How to Clean Up Hazardous Waste." Cato Institute Policy Analysis no. 247, December 18, 1995.
- Goklany, Indur. *Clearing the Air: The Real Story of the War on Air Pollution*. Washington: Cato Institute, 1999.
- Nalebuff, Barry. "On 64% Majority Rule." *Econometrica* 56, no. 4 (July 1988): 787–814.
- Tietenberg, Tom. *Environmental and Natural Resource Economics*. New York: Harper-Collins, 1992.
- VanDoren, Peter. *Cancer, Chemicals, and Choices: Risk Reduction through Markets*. Washington: Cato Institute, 1999.
- Yilmaz, Yesim. "Private Regulation: A Real Alternative for Regulatory Reform." Cato Institute Policy Analysis no. 303, April 20, 1998.

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