The Fable of Federal Environmental Regulation: Reconsidering the Federal Role in Environmental Protection

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RECONSIDERING THE FEDERAL ROLE IN ENVIRONMENTAL PROTECTION

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INTRODUCTION

Cleveland was the site of one of the seminal events in environmental history. On the morning of June 22, 1969, a stray spark ignited oil and debris on the surface of the Cuyahoga River. The resulting fire attracted relatively little local attention in Cleveland, but became a national event. Subsequently, *Time*, *National Geographic*, and *The New York Times* all wrote about the fire. It even inspired a song by Randy Newman. By many accounts, it lit the spark that led to the passage of the Federal Clean Water Act.

There are some problems with the traditional story of the Cuyahoga River fire, though. It is a powerful fable of federal environmental history, but a fable nonetheless. The fire was neither a sign of...
continuing environmental decline, nor clear evidence of the need for federal regulation. By revisiting the fable of the Cuyahoga, this essay aims to reconsider the origins of federal environmental regulation, and question the presumption that many environmental problems are best addressed through federal legislation. This essay posits that many federal environmental laws were adopted for the wrong reasons. Further, it suggests that environmental protections could be improved if more policy decisions were left in the hands of state and local governments.

THE FABLE OF THE CUYAHOGA

The 1969 fire is among the most infamous events in America's environmental history. Yet the fire was not the inferno most accounts presume. To the contrary, the fire was notably brief—lasting less than 30 minutes and receiving scant coverage in the Cleveland press. *Time* magazine ran a well-known picture of the fire later that year. Yet the picture in *Time* is not the 1969 fire at all. Rather it is a photo of a fire nearly 20 years earlier—a fire that truly was intense, caused substantial damage, and dominated the local news. *Time* could not run a photo of the fire because no such photo exists. The closest thing to a photo of the 1969 fire portrays a tugboat spraying water on a railroad trestle, but there is no smoke, let alone any flame. No photographer arrived in time to actually catch a picture of the fire before it was under control, so an older photo was published instead.

The popular perception is that the 1969 river fire was evidence of ever-deteriorating environmental quality. Most accounts of the fire

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6 For example, former EPA Administrator Carol Browner recalled the fire thusly, "I will never forget a photograph of flames, fire, shooting right out of the water in downtown Cleveland. It was the summer of 1969 and the Cuyahoga River was burning." Quoted in Kristina M. Tridico, *Sustainable America in the Twenty-First Century: A Critique of President Clinton's Council on Sustainable Development*, 14 J. NAT. RESOURCES & ENVTL. L. 205, 212 n.47 (1998-99). Yet as there was no photograph of the 1969 fire, the picture she almost certainly remembers was of the 1952 fire, not the 1969 fire. This is hardly the only mischaracterization of the 1969 fire. One environmental history claims that in 1969 the river burned for eight days! RICHARD N. L. ANDREWS, *MANAGING THE ENVIRONMENT, MANAGING OURSELVES: A HISTORY OF AMERICAN ENVIRONMENTAL POLICY* 224 (1999). See also ELIZABETH WHELAN, *Toxic TERROR* 225 (1985) (claiming that "In 1959 [sic] the river burned for eight days, as flames fed on hosts of industrial wastes that had been carelessly discharged on a regular basis"). For further examples, see Adler, supra note 1, at 89-98.


8 The Cleveland Press could only run a photo of the railroad ties warped by the heat of the flames. The Cuyahoga River Caught Fire, CLEVELAND PRESS, June 23, 1969, at 1 available at http://www.cwru.edu/artsci/engl/marling/60s/pages/richoux/69Realphoto.html (last visited Oct. 5, 2004) (showing no smoke or fire visible in picture). See also Oil Slick Fire Damages 2 River Spans, CLEVELAND PLAIN DEALER, June 23, 1969 at 11-C.
suggest water pollution had gotten so bad by 1969 that eventually a river burst into flames. In reality, fires on industrial rivers were relatively common throughout the late-19th and much of the 20th centuries. In Cleveland’s own history, there were many more notable fires than the brief blaze of 1969. In addition to the aforementioned 1952 fire shown in *Time*, there were major fires in 1936 and 1912, and in many other years. Yet these fires were not covered as prominently by the national press.

The Cuyahoga may be the most famous river to have burned, but it was hardly alone. The Schuylkill, Rouge, and others also burned. By 1969, however, the sort of pollution that led to such fires—the accumulation of oil, chemicals, and flammable debris on the water’s surface—were largely under control. The Cuyahoga River, for instance, had not burned in 17 years.

Over time, the fire hazard had become great enough to threaten local shipping, prompting the first cleanup efforts on the Cuyahoga. Evidence of a clear environmental problem prompted direct local action. Boats were dispatched to skim debris from the water and fire codes were enforced on local industry. These efforts were largely successful, and the fire threat on the river subsided. In this light, the 1969 fire is best seen as a freak accident. It merited relatively little local concern, but sparked national attention due to the growing national awareness of environmental problems. The *Time* photo in particular shocked the nation’s emerging environmental consciousness.

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9 See John C. Kuehner, *Cuyahoga River’s Fans Begin to See Hope*, CLEVELAND PLAIN DEALER, Oct. 8, 2004, at A18 (noting the 1969 fire was “at least the 11th fire since 1868”); see also Adler, supra note 1, at 99-105.

10 See Kernan v. American Dredging Co., 355 U.S. 426, 427 (1958) (noting tugboat on Schuylkill River “caught fire when an open-flame kerosene lamp on the deck of the scow ignited highly flammable vapors lying above an extensive accumulation of petroleum products spread over the surface of the river”); United States v. Ashland Oil & Transport Co., 504 F.2d 1317, 1326 (6th Cir. 1974) (taking judicial notice that the Rouge and Cuyahoga Rivers had “repeatedly caught fire”); See also River Afire Rolls Under Baltimore, CLEVELAND PLAIN DEALER, June 9, 1926, at 1 (describing the fire on the river leading to Baltimore Harbor); Significant Progress on Water Pollution Reported, N.Y. TIMES, Feb. 12, 1984, at 31 (noting that the Buffalo river caught fire in the 1960s).

11 See, e.g., Demands Burke End Oil Fire Hazard on Cuyahoga River, CLEVELAND PRESS, Nov. 3, 1952, at 6 (noting local demand for action to reduce river fire hazard).

12 See FRANK A. BUTRICO ET AL., RECOMMENDED PROJECTS FOR POLLUTION ABATEMENT ON THE LOWER CUYAHOGA RIVER TO THE OHIO WATER DEVELOPMENT AUTHORITY 13 (Battelle Memorial Institute, 1968) (noting “[t]he use of containment booms and floating mechanical-skimming devices to remove floating oil slicks has been demonstrated”); U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE, CONFERENCE IN THE MATTER OF POLLUTION OF LAKE ERIE AND ITS TRIBUTARIES, PROCEEDINGS Vol. 4, 837-38 (1965) (citing Mayor Locher who noted that the city was opening bids for a contract to remove debris from the river).
The cleanup of the Cuyahoga began before the 1969 fire drew national attention. Local industry and municipal leaders formed the Cuyahoga River Basin Water Quality Committee to monitor local water quality. Then in 1968, local voters approved $100 million to finance local cleanup. As a fire hazard, the Cuyahoga River was far cleaner in 1969 than it had been in decades, just as industrial rivers nationwide were less ridden with oils and flammable debris than they had been in the past. As one local official would later reflect, "We were already doing the things we needed to clean up things there, and then the fire happened."

THE FABLE OF ENVIRONMENTAL DECLINE

The 1969 fire is generally viewed as evidence of ever-deteriorating water quality—if not ever-worsening environmental quality—nationwide. Yet, as noted above, the available evidence suggests the Cuyahoga's water quality was improving in 1969 in many important respects. In this sense the story of the Cuyahoga is actually representative of a national trend. Throughout the 1950s and 1960s, state and local governments began to recognize the importance of environmental quality and adopted first generation environmental controls. As would be expected, some states' efforts were clearly more comprehensive and more successful than others, and different states had different priorities. Environmental protection did not always trump health care, education, or other local concerns. Nonetheless, by 1966, every state had adopted water pollution legislation of some sort.

The conventional fable is that federal environmental regulation was necessary because states failed to adopt adequate environmental measures. This account ignores the substantial environmental progress in many areas prior to the enactment of most major federal environmental laws. The EPA's first national water quality inventory,
conducted just one year after adoption of the Clean Water Act, found that there had been substantial improvement in water quality in major waterways over the preceding decade, at least with regard to the pollutants of greatest concern at the time: organic waste and bacteria.\footnote{A. Myrick Freeman III, Water Pollution Policy, in PUBLIC POLICIES FOR ENVIRONMENTAL PROTECTION 97, 114 (Paul R. Portney ed., 1990) ("The results of the EPA's first National Water Quality Inventory, conducted in 1973, indicated there had been significant improvements in most major waterways over the preceding decade, at least in regard to organic wastes and bacteria.")}

While water quality problems persisted, the evidence suggests that states began addressing those water quality problems that were clearly identified and understood well before the federal government.

There are similar patterns of state and local action preceding federal regulation in other areas as well. Federal wetland regulation, for example, began after a federal district court decision interpreting the Clean Water Act to require such regulation in 1975.\footnote{NRDC v. Callaway, 392 F.Supp. 685 (D.D.C. 1975); see also United States v. Holland, 373 F.Supp. 665 (M.D. Fla. 1974) (upholding Courts' jurisdiction over non-navigable waters and intertidal wetlands connected to navigable waters).} State and local regulation had begun much earlier, however. Massachusetts became the first state to regulate wetland development in 1963, modeling its initial efforts on preexisting local rules.\footnote{See Alexandra D. Dawson, Massachusetts' Experience in Regulating Wetlands, in WETLAND PROTECTION: STRENGTHENING THE ROLE OF THE STATES 255 (1985).}

By 1975, all fourteen states in the continental U.S. with more than ten percent of their land area in wetlands according to the National Wetland Inventory had adopted wetland protection measures.\footnote{See Jon A. Kusler et al., ASSOCIATION OF STATE WETLAND MANAGERS, STATE WETLAND REGULATION: STATUS OF PROGRAMS AND TRENDS, at 5-8, tbl. 1. The states in question are Alabama, Delaware, Florida, Georgia, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, South Carolina, and Wisconsin.} This is significant because this pattern of regulation—those states with the most wetland acreage regulating first—is the opposite of that which was predicted.\footnote{Oliver A. Houck & Michael Rolland, Federalism in Wetlands Regulation: A Consideration of Delegation of Clean Water Act Section 404 and Related Programs to the States, 54 MD. L. REV. 1242, 1253 (1995) ("[T]he larger a state's wetland inventory, the more important it is to the nation, but the less important saving it may appear to be to the state itself—indeed the more onerous the burden of protecting it will appear.")} All else equal, imposition of wetland regulations in a state in which there is a greater proportion of wetlands as a percentage of the state's total land area will impose greater costs than the imposition of similar regulations in a state in which wetlands represent a smaller proportion of its land area. As a result, one would expect such states with more wetlands to begin regulating after those states with fewer wetlands, if

\textit{Analysis}, 115 HARV. L. REV. 553, 578-79 (2001) ("[T]he view widely held in the legal literature that the states ignored environmental problems before 1970 is simply not correct.").
they were to ever regulate at all. Yet all regulated prior to the federal government.\(^{24}\)

The story of air pollution control is similarly a story of state and local governments acting first, and the federal government acting later. Cincinnati and Chicago become the first cities to adopt effective smoke control ordinances in 1881, and the number of cities with effective local controls increased dramatically in the post-World War II era.\(^{25}\) In some cities, such as Pittsburgh, the business community played a leading role in supporting such regulation.\(^{26}\) State regulations followed in much of the country.

Several studies of air pollution find evidence of significant environmental improvement prior to the adoption of federal environmental regulation. In a comprehensive study of air pollution trends, environmental analyst Indur Goklany documents that levels of key pollutants were in decline prior to adoption of the 1970 Clean Air Act Amendments.\(^{27}\) More significantly, the rate of improvement for some pollutants was greater prior to the adoption of federal controls than after.\(^{28}\) Robert Crandall of the Brookings Institution found that pre-federal air pollution control efforts were more successful than is typically assumed: "[P]ollution reduction was more effective in the 1960s, before there was a serious federal policy dealing with stationary sources, than since the 1970 Clean Air Act Amendments."\(^{29}\)

These studies suggest that state and local governments had the ability and motivation to address identified environmental concerns. As Paul Portney of Resources for the Future concluded, "These data . . . call into question one of the fundamental premises behind the [Clean Air Act]—that states and local governments would never impose the controls necessary to achieve healthful air."\(^{30}\)

As with water pollution, once a given air pollution problem was clearly identified and understood, state and local governments began


\(^{27}\) Indur Goklany, Clearing the Air (1999).

\(^{28}\) This does not necessarily mean that state and local efforts were more effective than federal efforts, as the observed data could be the result of diminishing marginal returns from pollution control efforts.


enacting measures to address these concerns before the federal government got into the act. Indeed, in some cases the early state efforts became the model for subsequent federal measures. In others, federal regulations were adopted, with the support of industry, to preempt more stringent or less uniform state regulatory standards. While it is common to suggest that federal intervention was necessary because state and local efforts "failed" to protect environmental quality, the historical record suggests a more complicated tale. Prior to the 1970s the federal government failed to fulfill many of its preexisting environmental obligations. At the same time, some state and local governments were beginning to make substantial progress in addressing local environmental concerns.

With both air and water pollution, the pollutants of greatest contemporary concern were targeted first. As the nation became wealthier, and the knowledge base improved, attention to environmental matters increased. It is well-established that wealthier societies place greater importance on environmental protection. They also have greater means to protect environmental values. The work of Indur Goklany strongly suggests that once wealthy societies perceive an environmental problem, they begin to address it. In the United States, this is exactly what happened. And contrary to the common fable, in most cases state and local governments were the first to act.

Why didn't states act earlier? In the 1950s, let alone the 1910s or 1930s, environmental issues did not yet rank with concerns for economic development, technological progress, and other social ills. There are many things recognized as environmental problems today that 30 or 50, let alone 100, years ago were of little social concern. An industrial river was often seen as a sign of progress—the prismatic

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32 See Adler, Fables, supra note 1, at 129-38.
34 Goklany, supra note 27, at 4-6.
pools of oil and chemicals on the surface of the water were seen as a sign of prosperity, not of waste and abuse.\textsuperscript{35} Policy makers at all levels of government knew little about the health effects of pollution and paid it little heed. While the environmental problems that plagued Cleveland and other parts of the nation are obvious in hindsight, the nature and extent of these problems were not always readily apparent at the time. Wetlands are appreciated for their tremendous ecological value today, but for much of the nation’s history they were deemed nuisances, and the federal government subsidized their destruction.\textsuperscript{36} Insofar as environmental protection was an item on the public agenda before 1969, concern focused on sanitation and drinking water, not the recreational or aesthetic values of waterways. Once the demand for greater pollution control emerged, action began.

The observed pattern of environmental regulation appears to have three phases. First there is a period of perception in which a given environmental problem is recognized as such.\textsuperscript{37} Then, in case after case, state and local governments begin to adopt measures to address the concern. This is quite possibly due to the importance of local knowledge.\textsuperscript{38} Those closest to a given environmental resource or concern are likely to be the first to recognize that there is a problem. As already noted, some of the state and local measures are more effective than others, and many early protection efforts may not be particularly effective. There is a learning curve to environmental protection as with any other endeavor. Federal regulation, in each case, comes last—after the period of perception and after the initial state and local efforts.

\textsuperscript{35} See William Donohue Ellis, The Cuyahoga 157 (1966)
The Gilded Age began—and it seemed to run on iron and oil, which turned the Cuyahoga iron red with an iridescent scum of oilbow colors . . . . There were some in carriages going over the bridge who looked down at the red and said it was a shame to dirty the river that way. But those who were right down in the waters in boats and barges and scows through the red and the rainbow were the sweetest colors a river ever had.

\textsuperscript{36} See Leovy v. United States, 177 U.S. 621, 636 (1900) (noting that wetlands are “the cause of malarial and malignant fevers” and declaring “the police power is never more legitimately exercised than in removing such nuisances”); Robert E. Beck, The Movement in the United States to Restoration and Creation of Wetlands, 34 Nat. Resources J. 781, 781 (1994) (noting that the country “was draining everything in sight to make communities healthful . . . ”); David E. Gerard, Federal Flood Policies: 150 Years of Environmental Mischief, in Government vs. Environment 59 (Donald R. Leal & Roger E. Meiners eds. 2002) (explaining that “[F]ederal flood control policies can be traced back to the mid-nineteenth century when land policy promoted the conversion of wetlands . . . to what were considered more productive uses”).

\textsuperscript{37} Goklany, supra note 27, at 3.
\textsuperscript{38} See infra notes 67-69 and accompanying text.
THE CAUSES OF CENTRALIZATION

If neither state or local failure to address environmental concerns nor ever-deteriorating environmental quality caused the adoption of federal regulation, what did? I would suggest four factors that played a role, although there may be others. 39 First, there is little doubt that the nation's environmental consciousness increased dramatically during the post-World War II era, particularly in the decade before the 1969 Cuyahoga fire. Despite substantial environmental progress in many areas, significant environmental problems remained, many of which had gone unrecognized for decades. Throughout the 1960s, pressure grew for greater federal involvement in environmental concerns. As America became more affluent, the demand for environmental quality increased dramatically. At the same time, best-selling books popularized the notion that modern industrial activity posed a mortal environmental threat. 40 The United States always had a strong conservation ethic, but the sort of environmental awareness that we think of today is relatively a recent phenomena; it really began in the 1960s, and culminated in the first Earth Day in 1970 and the passage of numerous federal environmental statutes.

A second factor has to be the nationalization of American politics—a phenomenon encouraged by the growth of the national media. Politics were more nationalized and local events could become stories on the national news. 41 The Santa Barbara oil spill, the 1969 Cuyahoga fire and other environmental events in the 1960s and 1970s became national events because they could be broadcast on a national level. Earlier river fires were not national events, even though they caused millions of dollars in damage and killed many people. Stories, and more importantly pictures, of such events were not distributed as widely in the first part of the century. Yet later images of less severe environmental harms had a greater effect. Even if things were improving locally, one could always find a picture in a newsmagazine or

39 For instance, Professor Farber postulates that federal environmental regulation was the result of a confluence of factors that created a "republican moment." See Daniel A. Farber, Politics and Procedure in Environmental Law, 8 J.L. ECON. & ORG. 59, 60 (1992).

40 See, e.g., RACHEL CARSON, SILENT SPRING (1962) (arguing that the massive use of chemical insecticides is devastating the environment); PAUL R. EHRLICH, THE POPULATION BOMB (1968) (discussing the ensuing world wide environmental crisis resulting from overpopulation); VANISHING AIR: THE RALPH NADER STUDY GROUP ON AIR POLLUTION (John C. Esposito ed., 1970) (documenting the effects of air pollution and arguing that corporate and governmental actors are not adequately addressing the problem); DONNELLA H. MEADOWS ET AL., THE LIMITS TO GROWTH (1972) (arguing that if the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth will be reached sometime within the next one hundred years).

41 See Elliot et al., supra note 33, at 335 (attributing some of the increased public concern with environmental issues to increased press coverage).
on the nightly news to suggest that somewhere else environmental conditions were still getting worse.

Third—and this is particularly important for those who advocate federalism and the decentralization of policy-making authority—the 1960s was a period of time in which the ideas of states rights, federalism, and leaving things at the local level were de-legitimized—sometimes for good reason. Federalism and "states rights" were often perceived as smokescreens designed to preserve racial segregation and frustrate the protection of civil rights—and in many cases this perception was accurate. While there were legitimate constitutional principles at stake, the association of federalism and localism with racism and segregation de-legitimized these principles for a generation. After the civil rights struggle, appeals to state autonomy and states rights simply did not have the same rhetorical force they once had in American politics. So, when the nation sought to address a problem, such as environmental degradation, it was much easier to call for "progressive" federal involvement to correct the "retrograde" actions of the individual states. If Mississippi couldn't be trusted to protect its citizens, how could it be trusted to protect its land, air, water and wildlife? Without this development, it would have been much more difficult to centralize environmental regulation in the hands of the federal government.

A fourth, and often overlooked, factor in the rise of federal environmental regulation is rent-seeking. Economic and regional interests realized they had something to gain by shifting environmental policy from the state and local level to the federal level, and in some cases that was an important, if not pivotal, reason for federal regulation. Perhaps the most prominent example of this is the adoption of federal vehicle emission standards, which were explicitly designed to preempt the proliferation of more stringent state standards.

In the 1960s, as the role of automobiles in urban air pollution became clear, states began to consider adopting tailpipe emissions stan-

42 It is important to note that the conflation with federalism with "states rights" misconstrues the nature of the principles at issue. Federalism, properly understood, is designed to protect individual liberty by constraining governmental power. It is not about protecting "states rights." See, e.g., John O. McGinnis & Ilya Somin, Federalism vs. States' Rights: A Defense of Judicial Review in a Federal System, NW. U. L. REV. (forthcoming) (arguing that federalism allocates power between the state and federal governments for the benefit of the people of the nation, not for the benefit of states qua states).

43 See Elliott et al., supra note 33, at 326-33 (noting that "the first significant federal statutes regulating air pollution . . . [were passed] because two well-organized industrial groups . . . were threatened with a state of affairs even worse from their perspective—namely, inconsistent and progressively more stringent environmental laws at the state and local level."); David Schoenbrod, Why States, Not EPA, Should Set Pollution Standards, in ENVIRONMENTAL FEDERALISM 260-62 (Terry L. Anderson and P.J. Hill eds. 1997).
dards for new vehicles. California was the first state to do this. As California had some of the nation’s worst air quality, it was also the national leader in developing and adopting air pollution control strategies. This concerned the nation’s automobile manufacturers. They were concerned about the stringency and timing of state standards, as well as with the potential for different states to adopt different standards. The industry was not pro-regulation, as such, but faced with the choice between variable and potentially stringent state regulation or a consistent federal standard, they opted for the latter. The automakers liked the idea that if they made a car in Detroit, it could be sold in any state in the union. They feared that if California adopted its standards this year, New York might come along next year and adopt a different standard, and Pennsylvania might then come along and adopt a third standard, and Florida might adopt a fourth standard, and so on. In the end, automakers would not only have to meet a California standard, but potentially a dozen or more. This would significantly increase the cost of production for automobiles and other nationally marketed products.

In searching for a solution to this problem, the automakers settled on the idea of authorizing federal regulation of automobile emissions to preempt more stringent state standards. Initially the idea was to give this authority to a federal regulatory agency, as this would delay the adoption of standards for many years. Congress obliged with the Motor Vehicle Pollution Control Act of 1965. Eventually, Congress adopted federal vehicle emission standards directly into statute and grandfathered California’s authority to set its own standards.

The origin of federal vehicle emission standards is one story of how economic rent-seeking encouraged environmental centralization, but it is hardly the only one. In the 1977 Clean Air Act regional interests fought over standards relating to emissions from coal-fired power plants, as well as standards for prevention of significant dete-

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44 Elliott et al, supra note 33, at 330.
45 Id. at 326.
46 Id. at 331.
47 Id. at 261.
49 Under current law, states other than California that desire more stringent vehicle emission controls than are provided under federal law may opt into California’s vehicle emission standards, but they may not adopt a “third” standard.
rioration. The part of the country already burdened by federal environmental regulations was very eager to impose equivalent regulations on the rest of the nation, lest they suffer some economic disadvantage. In areas ranging from the regulation of paint emissions to oil tanker standards—areas where different parts of the nation may have legitimately different interests—large national corporations tend to prefer a single standard that they can comply with everywhere rather than dealing with different standards in different places, even if the variability of standards has some regional environmental justification.

By revisiting the origins of federal environmental regulation, we can reject the fables that such regulation was necessary because environmental conditions were getting progressively worse or because state and local governments were unwilling or incapable of protecting environmental concerns. Instead, the historical record suggests four factors that, in combination, led to the centralization of environmental regulation: 1) Increased awareness of and demand for environmental quality; 2) Increased nationalization of politics; 3) State governments’ declining political legitimacy; and 4) Rent-seeking by corporations and other economic interests. As a result, environmental policy has been centralized in the hands of Washington, D.C. The important question today is what have been the consequences of this centralization.

THE CONSEQUENCES OF CENTRALIZATION

The fable of federal environmental regulation is not only that federal regulation was necessary to address state and local failures. The fable also suggests that federal environmental regulation was a logical and effective means of addressing the nation’s environmental problems. While there is no doubt some federal measures were effective, it is worth reconsidering the record of federal regulation. The existing regulatory architecture is three decades old, so it is now possible

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51 See generally, BRUCE ACKERMAN & WILLIAM T. HASLIER, CLEAN COAL, DIRTY AIR: OR HOW THE CLEAN AIR ACT BECAME A MULTIBILLION-DOLLAR BAIL-OUT FOR HIGH-SULFUR COAL PRODUCERS AND WHAT SHOULD BE DONE ABOUT IT (1981) (chronicling the regional and economic rent-seeking surrounding the 1977 amendments to the Clean Air Act and the resulting environmental effects).


to evaluate the effectiveness of federal environmental measures. Whether or not existing federal regulations deserve some share of the credit for the environmental successes of the past three decades, it is increasingly clear that they did not deliver the environmental gains that were promised, and will be unable to ensure continued environmental gains into the future.

Today there is a growing consensus among environmental policymakers that environmental regulations must be reformed if environmental progress is to continue. Existing programs are increasingly inefficient and ineffective. Even those who have no principled objection to centralized federal regulation believe there is a need for dramatic change. Enterprise for the Environment, a consensus-building stakeholder project on environmental reinvention, concluded: "The current system, consisting mainly of end-of-pipe, technology-based regulations, is inadequate for the challenges ahead." The most recent report on environmental policy from the National Academy of Public Administration, Environment.Gov concurred: "The regulatory programs in place in this country simply cannot address [current environmental] problems at a price America can afford." A top-to-bottom review of environmental regulation by Resources for the Future reached similar conclusions, finding the existing system of pollution control fragmented and inefficient, overly rigid and unnecessarily complex.

This general critique of existing federal environmental programs was even accepted by the Clinton administration's Reinventing Environmental Regulation report:

Prescriptive regulations can be inflexible, resulting in costly actions that defy common sense by requiring greater costs for smaller returns. This approach can discourage technological innovation that can lower the costs of regulation or achieve environmental benefits beyond compliance.

The various studies tend to identify a series of problems with our current federal government regulations. They are inflexible, experiencing diminishing marginal returns, are poorly prioritized, overly

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55 Karl Hausker, Reinventing Environmental Regulation: The Only Path to a Sustainable Future, 29 ENVTL. L. REP. 10,148, 10,149 (1999). Participants in the project included representatives from government, industry, and environmental organizations. For a list of participants, see http://www.csis.org/e4e/particip.html#1.


politicized, and poorly suited to the next generation of environmental concerns. Nonetheless, environmental regulation continues to increase, making it more difficult to adopt better ways of addressing certain problems.

One source of these pathologies within environmental regulation is excessive centralization. While there is some flexibility for state and local government involvement, most of the central policy decisions are dictated from Washington, D.C. For a tremendously heterogeneous and variegated country, the nation’s environmental laws largely impose a single national approach. All too often, federal environmental law embodies a “one-size-fits-all” approach that, in practice, is “one-size-fits-nobody.” As Professor Farber has observed, “[f]ederal regulations tend to be insensitive to differences in technological and economic constraints and to variations in environmental problems.”

Even those parts of federal environmental laws that, in theory, address regional and local concerns, provide little flexibility in practice.

Current environmental programs exhibit most of the failings of Soviet-style command-and-control systems: rigidity, inefficiency, diminishing marginal returns, and poor prioritization. This may be the inevitable consequence of adopting a centralized, command-and-control regulatory framework to address environmental concerns. Federal regulatory agencies are delegated the authority to set environmental goals and prescribe the methods that may be used for their attainment. As Professor Stewart notes, this approach has become “nothing less than a massive effort at Soviet-style planning of the economy to achieve environmental goals”

The problem is that such ecological central-planning cannot succeed any better than its discredited economic cousin. Indeed, the likelihood of long-term success is even less in the environmental context; planning the “production” of environmental “goods,” such as air quality, wilderness, or whatever else, is orders of magnitude more complex than planning the production of shoes or wheat. Centralized regulatory agencies are ill-equipped to handle the myriad ecological interactions triggered or impacted by private activity. No doubt the first generation of envi-

60 Most federal environmental statutes specify abstract goals, but it is left to the regulatory agencies to delineate the standards or measures that embody the legislatively prescribed principle. For example, the Clean Air Act requires localities to achieve air quality levels that are “necessary to protect the public health” with an “adequate margin of safety,” but it is the EPA that quantifies the pollution levels that correspond to this goal. See Clean Air Act, 42 U.S.C. §§ 7401-7431 (2004).
onal regulations produced some significant gains—just as the Soviet economies once appeared productive. Over time, however, every centrally planned economy collapsed under its own weight. As centralized environmental regulations reach their limit, they too begin to falter. The excessive centralization of environmental policy in the hands of a federal regulatory bureaucracy is the central failing of conventional environmental policy.

THE CASE FOR DECENTRALIZATION

If excessive centralization is the problem, then some measure of decentralization is at least a step toward the solution. Decentralizing authority and responsibility for environmental policy has the potential to address some of the greatest problems with existing environmental regulations as well as to sow the seeds for further, much needed, reforms. Today's overly centralized, rigid, and inefficient environmental regime fails to take advantage of the potential efficiencies inherent in the federalist system. Transferring significant environmental authority to the states could foster innovation and greater attention to local environmental concerns and conditions, while enhancing accountability for environmental decisions, particularly where environmental concerns are local in nature. There are several reasons for moving toward a more "federalist" environmental policy: regional variation, preference satisfaction, knowledge, innovation, accountability, and "ecologies of scale."

First, the nature of environmental problems will vary from place to place. The air pollution problem in Pima County, Arizona is very different from the air pollution problem in Cuyahoga County, Ohio. Each urban area has a different mix of pollution sources and geographical factors that determine the nature of local pollution concerns and suggest different sources of solutions. The most cost-effective pollution control measures in a city with a centralized downtown and a large, aging industrial base will be different than those in a city that is more spread out, has little industry, and where automobiles are newer and better maintained than in other cities. Even if one focuses on a single pollutant of concern, such as tropospheric ozone, the mix of sources will vary, as will the best control strategies. Indeed, in some cases, policies that will reduce ozone levels in one area will actually increase ozone levels in another.

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63 See, e.g., NATIONAL RESEARCH COUNCIL, RETHINKING THE OZONE PROBLEM IN
Second, while it may be fair to say that all Americans are "environmentalists"—in that all Americans generally support the goals of cleaner air and water, protection of natural areas, and the like—specific environmental preferences vary from place to place. In some parts of the country, the greatest environmental concern may be drinking water, in another it may be the preservation waterfowl habitat. Environmental goals that may seem unobjectionable may be opposed in some parts of the country where citizens would rather devote public resources to other concerns. Whether it is worth investing additional public resources to reduce a cancer risk from 0.8 in a million to 0.7 in a million is a question of values that science cannot answer, and it is unreasonable to assume that there will be a national consensus as to the proper trade-off for the attainment of marginal increments of environmental protection.

Decentralized decision-making allows for a closer fit between policies and local preferences and gives individuals the option to sort themselves among jurisdictions based on which offers the most appealing mix of policies and amenities. As a result, more people would be satisfied with the priorities and policies under which they live. Another consequence of decentralization, of course, is greater diversity in policy offerings. A decentralized approach to environmental policy would necessarily be a more varied one. "One-size-fits-all" approaches tend not to fit any area particularly well. Therefore, allowing for policy variation increases the likelihood that environmental controls in a given area will match local needs and concerns.

Third, centralized regulatory systems are unable to accumulate and incorporate all of the time- and place-specific information and knowledge necessary to design optimal environmental policies. As Professor Stewart noted over twenty-five years ago, "environmental quality involves too many intricate, geographically variegated physical and institutional interrelations to be dictated from Washington." This is the "knowledge problem" described by Nobel Laureate economist F.A. Hayek:

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64 See Nebraska v. EPA, 331 F.3d 995 (D.C. Cir. 2003) (discussing a state challenge to the federal drinking water standard for arsenic).


[T]he knowledge of the circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess. The economic problem of society is thus not merely a problem of how to allocate "given" resources—if "given" is taken to mean given to a single mind which deliberately solves the problem set by these "data." It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge not given to anyone in its totality.68

This "knowledge problem" is greatly magnified in the environmental context because of the inherent complexity of environmental concerns. Planning for environmental protection encompasses all the intricacy and specialized information required for economic planning on top of the need for scientific and technical expertise and site-specific information related to particular environmental concerns. The local and regional nature of many environmental problems means that familiarity with local conditions is necessary to develop proper solutions. Such localized knowledge is simply beyond the reach of even the most intrepid federal regulators. As Professors Butler and Macey observe, “[f]ederal regulators never have been and never will be able to acquire and assimilate the enormous amount of information necessary to make optimal regulatory judgments that reflect the technical requirements of particular locations and pollution sources.”69

Fourth, greater decentralization allows for greater innovation and can spur the development of new approaches to environmental protection. As Supreme Court Justice Louis Brandeis noted in 1932, “[i]t is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the

68 F. A. Hayek, The Use of Knowledge in Society, 35 AM. ECON. REV. 519, 519-20 (1945). Hayek later elaborated on this point, noting that
[i]t]he chief reason why we cannot hope by central direction to achieve anything like the efficiency in the use of resources which the market makes possible is that the economic order of any large society rests on a utilization of the knowledge of particular circumstances widely dispersed among thousands of individuals.


Decentralization permits states and communities to develop new approaches that address emerging environmental concerns, incorporate local concerns, or attain environmental goals at lower cost. Interjurisdictional competition is a key element in this process, as the prospect of competition from other states encourages jurisdictions to find new ways of maximizing their appeal.  

At present we already see many states trying to experiment with better ways of achieving environmental goals. These experiments range from financial incentives for conservation measures and non-point source pollution controls to expedited or more flexible permitting systems and brownfield redevelopment programs. As occurred in the debate over the federal welfare system, state experimentation and innovation can pave the way for greater reforms. Indeed, when the federal government innovates, it is often replicating successful state efforts. At the same time, as Professor Farber notes, policy failures "are nearly as important, since observing them may save us from making costly errors on a national scale." Despite current state and local efforts, there is relatively little experimentation and innovation in environmental policy today because existing federal environmental statutes severely limit state opportunities to innovate and experiment.

Fifth, decentralization can increase accountability within environmental policy. When policies are nationalized, addressing the concerns of those communities that suffer disproportionately from policy errors or omissions becomes difficult. Local environmental concerns must compete against national political priorities. A Congressman from Washington state voting on a statute that is driven by the environmental problems faced by Los Angeles, California does not bear the costs, nor reap the benefits, of the policy at issue. A small town that needs to devote resources to improving the quality of its

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72 For various examples of state-level innovation, see Environmental Council of the States, at http://www.sso.org/ecos/publications/oldinn0.htm; Alexander Volokh et al., Race to the Top: The Innovative Face of State Environmental Management, POLICY STUDY 239 (Reason Public Policy Institute, February 1998).
73 See Robert V. Percival, Environmental Federalism: Historical Roots and Contemporary Models, 54 Md. L. REV. 1141, 1148, 1172 (1995) ("Some of the most innovative environmental protection legislation has been the product of state initiatives.").
75 Adler, supra note 64, at 270-72.
76 Schoenbrod, supra note 45, at 264-65.
drinking water must compete for federal funds and attention with whatever environmental concern is on the evening news. The local politician who supports a local drinking water ordinance drinks the water protected by the law and is part of the taxbase that will support the policy at issue. As Professors Butler and Macey observe, "[a]llocation to local governments of regulatory authority over local externalities allows decisions to be made by the representatives of the citizens who benefit the most and pay the most for higher environmental quality." If local residents are dissatisfied with the balance struck by their own elected representatives and regulatory officials, they have the ability to seek redress. Their freedom to alter environmental policies to fit their needs will be less subject to those who do not share the costs and benefits of the policy decision or understand local values and concerns.

Sixth, there are ecologies of scale in environmental policy. Most environmental problems are local and regional in nature, and there are some that may be global or international, but none are "national." As a result, state and local governments often have a comparative advantage in addressing most environmental concerns. Concerns for localized knowledge, innovation, accountability, and satisfying preferences counsel greater decentralization. The federal government may well enjoy a comparative advantage in the funding and support of scientific research, but this does not necessarily extend to policy choice and design.

At one time it could perhaps be argued that states lacked the resources to address environmental problems, and therefore an overarching federal presence was required. Today, however, states play the dominant role in implementing environmental policies, even if they are relegated to a marginal role in priority setting and the administration of environmental policy. While federal environmental enforcement efforts get most of the attention, most environmental enforcement and monitoring is done at the state level. State agencies are not perfect—and there will be failures at the state and local level just as sure as there will be failures at the federal EPA. None-

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77 Butler & Macey, supra note 71, at 7.
78 Butler & Macey, supra note 71, at 27 ("[W]hatever the economies of scale associated with the centralization of environmental policy, they are surely overwhelmed by the diseconomies of scale in centralized administration.").
theless, state and local agencies will always be closer to many of the environmental problems we seek to address.

THE WAY FORWARD

The argument for decentralization is not an argument for eliminating the federal role in environmental protection. Rather, it is an argument for redefining the federal-state balance. Specifically, the federal government should focus its efforts where the federal government has a comparative advantage over state and local governments. This is not the case in designing and implementing drinking water standards or improving urban air quality. It is, however, the case when it comes to interstate pollution. Where pollution from one state spills over into another state, there is an unimpeachable case for federal intervention. Yet there are relatively few provisions of federal environmental law that specifically address such spillover concerns—and what few provisions exist have been rarely invoked.

It is also important for the federal government to clarify the extent of its current role. In 2001, the Supreme Court held that some regulations under the Clean Water Act governing isolated waters and wetlands exceed federal authority, but it left the precise contours of existing federal authority unclear. This uncertainty discourages states from filling the gaps, as they do not know how much of a gap there is to fill. State governments are not likely to squander scarce

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80 See, e.g., Thomas W. Merrill, Golden Rules for Transboundary Pollution, 46 DUKE L.J. 931 (1997). Merrill, an advocate of federalism, notes that “given the inherent difficulties in regulation by any single state, transboundary pollution would seem to present a clear case for shifting regulatory authority from local to more centralized levels of governance.” See also, Jonathan H. Adler, The Ducks Stop Here? The Environmental Challenge to Federalism, 9 SUP. CT. ECON. REV. 205, 231-34 (2001).

81 See Richard Revesz, Federalism and Interstate Environmental Externalities, 144 U. PA. L. REV. 2341 (1996) (noting that “specific federal provisions dealing with interstate externalities have been wholly ineffective.”). The Environmental Protection Agency has started to address such concerns in recent years, however. See, e.g., Michigan v EPA, 213 F.3d 663, 671 (D.C. Cir. 2000) (upholding most of the EPA’s requirement that upwind states reduce downwind emissions of nitrogen oxide).


83 See, e.g., Lance D. Wood, Do Not Be Misled: CWA Jurisdiction Extends to All Non-Navigable Tributaries of the Traditional Navigable Waters and to Their Adjacent Wetlands, 34 ENVTL. L. REP. 10187, 10189 (2004) (noting SWANCC was “ambiguous” and courts have been “inconsistent” in their interpretations); Amended Statement of Patrick Parenteau, Professor of Law, Vermont Law School, before the House of Representatives Committee on Government Reform, Sept. 19, 2002 (“The decision has created substantial uncertainty regarding the geographic jurisdiction of the Clean Water Act.”); Position Paper on Clean Water Act Jurisdiction Determinations Pursuant to the Supreme Court’s January 9, 2001 Decision, Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, Associate of State Wetland Managers, Dec. 2001 (“The section 404 regulatory program has been in turmoil ever since the Supreme Court’s SWANCC decision.”).
resources duplicating federal regulations, so the lack of clear boundaries on federal regulation may be resulting in lower levels of environmental protection.

More importantly, the federal government needs to create clear and legally defined opportunities for state and local experimentation. A policy of "ecological forbearance," under which state governments could seek relief from existing federal mandates so as to experiment with alternative means of environmental protection could reopen the laboratories of democracy in environmental policy. This is not an argument for simply scrapping the regulatory structure that exists today. Rather, it is a call for facilitating greater innovation and evolution in environmental policy by creating opportunities for policy change.

Finally, it is important to note that there is no such thing as achieving environmental nirvana. Modern human civilization inevitably entails environmental impact. The question is not which policy approach or mix of policies will eliminate all environmental problems. Rather, the question is what mix of institutions and policies will do the best—or perhaps the least-bad—job of helping us reach the environmental goals that we seek to attain. Every approach is going to have problems; every approach that we point to is going to fail at some point. So the answer to the question will simply be the approach that does the most acceptable job.

It is in some senses an historical accident that state leadership in environmental policy was supplanted by federal regulation, and environmental policy could be improved if states regained more of their historic role. The federal government did not come to dominate environmental policy because a more decentralized system was leading to environmental ruin. Rather, an accidental spark on the Cuyahoga River helped ignite the political push for national regulation—a push that was then furthered by other factors within the political process. Recognizing the fables of federal environmental regulation, and decentralizing control over environmental policy, could restore a more healthy and productive balance in environmental policy. A more decentralized approach would not only be more efficient, but also more effective and equitable as well.

84 A proposal for "ecological forbearance" is outlined in Adler, supra note 64, at 272-81.