

MICHAEL E. KRAFT

U.S. Environmental Policy and Politics: From the 1960s to the 1990s

Environmental policy and politics in the United States have changed dramatically over the past three decades. What began in the late 1960s as an heroic effort by an incipient environmental movement to conserve dwindling natural resources and prevent further deterioration of the air, water, and land has been transformed over more than three decades into an extraordinarily complex, diverse, and often controversial array of environmental policies. Those policies occupy a continuing position of high visibility on the political agenda at all levels of government, and environmental values are widely embraced by the American public. Yet throughout the 1990s environmental policies and programs were characterized as much by sharp political conflict as by the consensus over policy goals and means that reigned during the early to mid-1970s. As the twenty-first century approaches, there is considerable value in looking back at this exceptional period to understand the nature of the transformation and its implications for the future.

In this article I use a framework of agenda setting and policy change to review and assess some of the most important developments in environmental policy and politics from the 1960s to the late 1990s. I give special attention to the establishment of the environmental protection regulatory regime of the 1970s and the maturation and expansion over time of the institutions charged with policy implementation. I also highlight the changing fortunes of the environmental movement and its battles with the "environmental opposition" during the 1980s and 1990s. Finally, I look to the early stages of what promises to be the next major transition in environmental policy as policymakers, business leaders, and citizens seek to establish sustainability as a concept and set of practices that can help to reconcile and integrate what have often been clashing environmental, economic, and social values.¹

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Agenda Setting and Policy Change

Political scientists have used several different analytical and heuristic frameworks to help explain the nature of agenda setting and policy change over time. Among the most appropriate for environmental policy development over the last three decades are those advanced by John Kingdon, Frank Baumgartner and Brian Jones, and Paul Sabatier and Hank Jenkins-Smith.² To greatly simplify their work, we can think about the rise of environmental issues on the political agenda and agreement and disagreement over policy goals and means as resulting from several different, but interacting, social and political processes. Among the most important of these are problem, policy, and politics “streams” of activities that operate somewhat independently of each other but which also converge at certain historical junctures. The convergence reflects the actions of policy entrepreneurs and activists, and processes of debate and learning that take place as differing advocacy coalitions compete.

The *problem stream* influences the policy agenda by providing data about the state of environmental conditions and trends such as air quality, use of toxic chemicals, or loss of biological diversity. The data and assessments circulate among policy specialists, affecting their perceptions and understanding of the problems regardless of whether they produce any immediate effects on policy decisions. The problem stream is also affected by catalytic or focusing events such as crises or disasters, which may increase the salience of the issues and influence the credibility of pertinent studies and reports.³

The *policy stream* refers to the ensemble of policy ideas and proposals that are developed by analysts, academics, legislators, bureaucratic officials, interest-group representatives, and other policy actors. They become the objects of political speeches, legislative hearings, task-force studies, and published articles and reports. They may also be the focus of pilot projects and experimental programs, especially at the state and local level. In these ways proposals get tested by the policy community for technical acceptability and political and economic feasibility. Policy ideas that are inconsistent with the prevailing political mood, such as recommendations during the 1970s to use economic incentives as an alternative to regulation, may be dropped from consideration and relegated to the policy back burner for warming or incubation until the climate improves—as it did during the 1990s. The same shift in the political climate led to a diversity of new policy strategies given serious consideration during the 1990s, such as the use of public-private partnerships, privatization, regulatory flexibility, and collaborative decisionmaking processes.

The *politics stream* refers to the political climate or national mood as revealed in opinion surveys, election results (particularly a change in presiden-

tial administrations or control of Congress), and the activities and perceived strength of interest groups. The political mood is never easy to decipher at any given time, and sometimes judgments are well off the mark. For example, in the early 1980s and again in the mid-1990s, policymakers assumed erroneously that the lower salience of environmental issues implied reduced public support for environmental policy.⁴

Although these three streams can be said to “flow” independently through the society and political system, they may converge at any given time because of the efforts of environmental policy leaders or entrepreneurs, the creation of windows of opportunity through catalytic events such as accidents or crises, or an abrupt shift in the political climate. For example, after over ten years of congressional inaction on oil-spill legislation, the Exxon *Valdez* spill in 1989 prompted Congress to enact the Oil Pollution Act of 1990, requiring companies to submit oil-spill contingency plans to the Coast Guard and the Environmental Protection Agency (EPA) and to train their employees in oil-spill response.⁵

Policy entrepreneurs are often prepared to take advantage of such opportunities. Even when they do not present themselves, however, such leaders and policy activists in the environmental community, or in the opposition camps, continue to stimulate interest in the problems, circulate new studies, educate the public and policy makers (largely through communications designed to win public support for the groups’ perspectives), and otherwise incubate the issues.⁶ Leaders and activists are rarely equal in their ability to perform those essential tasks, and critics of U.S. politics often suggest important differentials in political access and influence. There is little question that environmental and other public interest groups such as the Sierra Club and the Natural Resources Defense Council have greatly increased their political clout over the past thirty years. Nonetheless, according to several credible assessments, they still lack the financial and other resources common among the business and industry groups that continue to wield exceptional influence in environmental policymaking.⁷

Finally, we can add to this general picture of agenda setting one further element that helps to explain policy change over long periods of time, such as several decades or more. Sabatier and Jenkins-Smith argue that much policy change takes place as different advocacy coalitions, such as environmentalists and the business community, debate the issues, and in the process help to promote policy learning through changes in belief systems (values and attitudes). Eventually such learning can lead to a substantial shift in the political climate and new directions in environmental policy. Baumgartner and Jones argue that such a process led to the decline of the once-popular nuclear power establishment, and Christopher Bosso makes a

similar case for the decline of the once-dominant agricultural chemical industry under an assault by environmental and consumer groups.⁸

Applying these general ideas to the evolution of environmental policy in the United States over three decades suggests a movement, albeit somewhat erratic, through three distinctive and overlapping eras of policy and politics: national environmental regulation dating largely from the early 1970s and continuing (with increasing criticism and modification) through the 1980s and 1990s; efficiency-based reform and reaction, which began in earnest in the 1980s and continued through the 1990s; and sustainability-based environmental policy and planning, which gained considerable support throughout the 1990s and which is likely to set the overall character of environmental policy well into the twenty-first century. In this context, sustainability means finding ways to integrate environmental integrity, economic health and vitality, and social and cultural well-being and to ensure that the needs of future generations are not compromised.

It is important to recognize that within each of these periods there is a dominant view of environmental problems and of acceptable policy strategies. Each of these views gradually gives way to the defining characteristics of the next era, based in part on policy learning and the changes noted above in the problem, policy, and politics streams.⁹ In this way we can see the gradual evolution of environmental policy over three decades and more. By the late 1990s, nearly all serious analysis pointed toward the long-term goal of sustainable development, and hence the need to ground environmental policy in the concept of sustainability—despite the diversity of ways in which these concepts have been defined.¹⁰

During the first of these three eras, beginning in the 1960s and reaching its full flowering in the early to mid-1970s, the modern movement arose from relative obscurity to national prominence, and its actions spurred the development of dozens of new national policies for environmental protection. Largely because of rising affluence and education, and fundamental changes in American values associated with the shift from an industrial to a postindustrial or postmaterialist society, this first era reflected and reinforced what Norman Vig and I have called a deep political current of environmentalism. This deep current consists of long-term social, economic, technological, and political forces that virtually guarantee continued public support for the 1970s-era environmental policies. In contrast, there is a shallow current consisting of shorter-term political and economic forces, such as elections, economic cycles, and crises, that may alter the salience of environmental issues and either reinforce the long-term trends or temporarily weaken them.¹¹

Much as Kingdon suggests that significant policy developments tend to occur when the three streams converge, Vig and I argue that interaction of

the deep and shallow currents helps to explain fluctuations in environmental policy commitments from one year, or decade, to the next. Over time, however, one can see the continuity of strong public support for environmental protection, expanding governmental authority, and, at least to some extent, increasingly effective, if controversial, policy implementation. The near-term discontinuities in these patterns capture our attention; an example is intense opposition to environmental policies in the 104th Congress (1995–96). Yet the longer-term transformations in values and environmental behavior arguably are more important. A brief review of key developments within each of these periods illustrates these patterns. It also permits historically informed speculation about the intriguing changes under way in environmental policy and politics as the twentieth century draws to a close.

Environmental Policy Comes of Age: From the 1960s to the 1970s

The modern era of environmental policy is commonly associated with the enactment of the National Environmental Policy Act (NEPA) of 1969, signed into law by President Richard Nixon on the first day of 1970. Yet well before the momentous policy developments of the 1970s that would follow NEPA's approval, federal environmental policy had begun to change in response to the forces described above—especially recognition of the threats to public lands and natural resources and increasing public support for policy intervention.

Early Actions on Natural Resources and Population Issues

Throughout much of the twentieth century, Congress set aside portions of the public domain for preservation as national parks, forests, grazing lands, recreational areas, and wildlife refuges. Some of the guiding principles of those actions, such as multiple use and sustained yield, can be traced back to the Progressive Era conservation movement at the turn of the century. Public land management for the first half of the twentieth century enjoyed some success in natural resource stewardship, particularly in protecting lands from development. By the 1960s, a succession of public lands policies helped to complete the transition from an earlier emphasis on resource extraction and privatization of the nation's resources to one characterized by a broader stewardship of public lands that would protect selected areas from economic development. Among the most important of these acts of Congress were the Multiple Use-Sustained Yield Act of 1960, the Wilderness Act of 1964, the Land and Water Conservation Fund Act of 1964, and the Wild and Scenic Rivers Act of 1968. They set the stage for the equally important public lands management acts to follow in the mid-1970s.¹²

At least one other notable policy action that aspired to affect the global environment dates back to the 1960s. During the mid-1960s, largely as a consequence of the actions of policy entrepreneurs in Congress such as Senator Ernest Gruening (D.-Alaska), the United States began an international population policy designed to assist developing nations through provision of financial aid for family planning efforts. President Lyndon B. Johnson and congressional sponsors of the programs tied them explicitly to a concern for new ways to deal with "the explosion in world population and the growing scarcity in world resources."¹³

The population issue never achieved the agenda status of most other environmental policies. Even with President Richard Nixon's first presidential message to Congress ever on population issues (18 July 1969), and creation of the Commission on Population Growth and the American Future (1970 to 1972), the subject was too controversial to attract policymaker support. The politics stream would remain unfavorable toward action on population issues over most of the next thirty years even with the creation and expansion of both domestic and international programs devoted to provision of family planning services. Opposition to such programs increased during the 1980s and 1990s even as evidence mounted that global population growth could undermine many of the other achievements of environmental protection and natural resource policies. Nonetheless, the programs begun during the 1960s for international population assistance and in the 1970s for domestic family planning programs continued to be funded despite regular battles in Congress that centered on abortion controversies.¹⁴

Federal Pollution Control Responsibilities Soar

Despite this longtime concern for resource conservation and land management, and the new interest in population issues that arose in the 1960s, federal environmental policy was only slowly extended to control of industrial pollution and human waste. Air and water pollution were long considered a strictly local matter, and they were not high on the national agenda until around 1970. After World War II, policies to control the most obvious forms of pollution were gradually developed at the local, state, and federal levels. With passage of the Water Pollution Control Act of 1948, the federal government began assisting local authorities in building sewage treatment plants, and it initiated a limited program for air pollution research in 1955. Following the Clean Air Act of 1963 and amendments to the water pollution law, Washington began prodding the states to set pollution abatement standards and to formulate implementation plans based on federal guidelines.¹⁵

The policy agenda expanded exponentially after 1970, as the problem, policy, and politics streams converged, and national policy leaders took up the challenge. Among the most notable of them in the U.S. Congress were Senators Edmund Muskie (D.-Maine), Gaylord Nelson (D.-Wis.), and Henry Jackson (D.-Wash.), and Representatives Paul Rogers (D.-Fla.), John Saylor (R.-Pa.), Morris Udall (D.-Ariz.), and John Blatnik (D.-Minn.). Membership in the leading environmental groups had grown significantly during the 1960s, but it enjoyed another substantial surge following the first Earth Day on 22 April 1970. For example, the Sierra Club's membership grew from 15,000 in 1960 to 113,000 by 1970, and then rose to 180,000 by 1980. The National Audubon Society saw its membership increase from 32,000 in 1960 to 148,000 by 1970, and to 400,000 by 1980.¹⁶

The effect of this stunning growth in membership was to push the politics stream in a direction greatly favorable to the policies endorsed by the leading environmental groups. The polls indicated a sharp rise in public concern about the environment and the newly energized and well-endowed environmental lobby was making its presence felt throughout the policymaking venues of Washington, D.C. (and at the state and local level). In addition, mounting evidence of environmental degradation (the problem stream)—reaching the public through wider media coverage of the issues and through popular books such as Rachel Carson's *Silent Spring* (1962), Paul Ehrlich's *The Population Bomb* (1968), and Barry Commoner's *The Closing Circle* (1970)—propelled the issues to new heights on the political agenda.¹⁷ To use the concepts introduced above, the shallow current of the 1970s, including public confidence in the federal government, a strong economy, and a skeptical attitude toward the business community reinforced the deep current of new social values and public concern for the environment and public health, and other quality of life issues, that had been growing throughout the 1960s.¹⁸

The consequence of these merging social and political forces was a period of legislative productivity on environmental issues that was truly extraordinary for a political system where the norm is incremental policy change at best. In scarcely more than half a decade, policy entrepreneurs in Congress helped to push through the Clean Air Act of 1970, the Clean Water Act of 1972 (over a presidential veto), the Federal Environmental Pesticides Control Act of 1972, the Endangered Species Act of 1973, the Safe Drinking Water Act of 1974, the Resource Conservation and Recovery Act of 1976 (the nation's major hazardous-waste control law), the Toxic Substances Control Act of 1976, and two highly significant natural resource policies: the Federal Land Policy and Management Act of 1976 and the National Forest Management Act of 1976. Other major environmental laws followed

through 1980, including amendments to the clean air and clean water laws, requirements to restore strip-mine lands, the setting aside of more than one hundred million acres of Alaskan wilderness for varying degrees of protection, and the creation of a "Superfund" (in the Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA) for cleaning up hazardous-waste sites.¹⁹

It is especially noteworthy in light of critiques that emerged during the 1980s and 1990s that environmental protection, or pollution control, statutes approved in the 1970s adopted a common policy strategy: national environmental quality standards to be achieved through a federal-dominated regulatory—or command-and-control—process. The underlying assumptions appeared to be that environmental problems were relatively simple and the solutions obvious and easily achieved. Offending industries (and municipalities) would be forced to clean up through the setting and enforcement of standards by a federal regulatory bureaucracy that often was legally required to pay little attention to cost or to the technical and administrative obstacles to achieving statutory goals within the specified time period.²⁰ The assumptions behind these new policy strategies would later prove to be highly problematic, and dissatisfaction with the "pollution control system" grew substantially after the late 1970s.

The pollution control laws were to be implemented by a newly created Environmental Protection Agency (EPA), brought into existence by an executive order signed by President Nixon on 2 December 1970. The order transferred most, although not all, existing federal environmental protection programs to the EPA, which was established as an independent executive agency reporting directly to the president. The agency would later suffer from this arrangement. Its administrator did not enjoy cabinet rank, as was the case with environmental ministers in other industrialized nations, and there was no "organic" act of Congress setting forth the agency's mission and goals. Hence the agency had little basis in law for the essential tasks of priority setting among what would eventually become a vast array of programs competing for limited resources.

Congressional and presidential enthusiasm for environmental policies continued throughout the 1970s as a succession of presidential administrations through Jimmy Carter's cooperated in a bipartisan fashion in advancing policy development.²¹ Democrats and Republicans differed in the extent of their support for environmental laws, but the bitter partisan disputes over these issues that were to erupt in the 1980s and 1990s were not yet a fixture on the political scene.²²

It is particularly striking in light of partisan conflict over the environment in the 1980s and 1990s that President Nixon chose to embrace environmental policy initiatives. Indeed, Nixon declared himself an environ-

mentalist and proclaimed the "Environmental Decade" on 1 January 1970. As the first EPA administrator, he appointed William Ruckelshaus, who helped to build bipartisan support for the new agency and give it the institutional resources it needed to succeed. Perhaps most significantly, Nixon supported demanding clean-air legislation, and even competed with Senator Muskie in offering increasingly stringent proposals on the pending Clean Air Act Amendments in Congress. Nixon's support was crucial to the enactment of the landmark clean-air bill, which set the pace for environmental protection legislation in the 1970s.²³

Eventually, however, Nixon had to mollify core Republican constituencies in business and industry, who opposed tough regulations on air and water pollution. When Congress overrode Nixon's veto of the 1972 Water Pollution Control Act Amendments (which he viewed as too costly), he grew more critical of environmental policy actions being taken in Congress and sought to impose centralized White House control over the burgeoning federal responsibilities for environmental protection. It was a style of presidential administration that would be repeated more successfully during Ronald Reagan's tenure in the White House.²⁴

Congress continued to enact major new environmental policies through 1980. Yet survey data and congressional actions began to signal that the salience of environmental issues for the American public was waning.²⁵ By the late 1970s, the impact of new environmental regulations on the economy began to create a backlash that would reach its full expression in the presidency of Ronald Reagan. It would also reappear in the mid-1990s in the 104th Congress.

Institutionalization of Environmental Policy at the Federal and State Level

Aside from the enactment of new environmental and natural resource policies and the creation of the EPA, one of the most important developments during the 1970s was the institutionalization of environmental programs within federal and state bureaucracies. For example, under Ruckelshaus the EPA's legislative mandate grew rapidly as a consequence of the policy process summarized above, and the agency acquired many new programs, offices, and staffs. Its operating budget (the funds available to implement its programs) grew from about \$500 million in 1973 to \$1.3 billion by 1980. Full-time employees increased from about 7,000 in 1971 to nearly 13,000 by 1980, with two-thirds of them in the agency's ten regional offices and other facilities outside Washington, D.C.²⁶ Even with its expanded budget and staff, however, the nation's leading environmental agency found it increasingly difficult by 1980 to meet new program obligations.

Beyond the EPA, other federal agencies were affected by new environmental mandates, particularly those related to the implementation of NEPA. During the 1970s virtually every federal agency was forced to develop some capabilities for environmental analysis under NEPA, which required that environmental impact statements (EISs) be prepared for all "major federal actions significantly affecting the quality of the human environment." Detailed requirements for the statements were set out by the Council on Environmental Quality and enforced in the courts. Provisions for public hearings and citizen participation allowed environmental and community groups to challenge administrative decisions, often by filing legal suits questioning the adequacy of the impact statements.²⁷

In response to these potential objections, agencies changed their project designs—sometimes dramatically. Even the Army Corps of Engineers, which had often been castigated by environmentalists, learned to adapt. Although the EIS process was roundly criticized (indeed, it was revised in 1979 to focus more sharply on crucial issues), most studies show that it forced greater environmental awareness and more careful planning in many agencies; moreover, such success led to extension of this kind of impact analysis to other policy areas.²⁸

Established natural-resource agencies, such as Agriculture's Forest Service and Interior's Bureau of Land Management, generally made the transition to better environmental analysis and planning more easily. Long-standing doctrines of multiple use and strong professional norms of land management were gradually adapted to serve new environmental goals and interests. Wilderness preservation, never a dominant purpose of these agencies, came to be accepted as part of their mission, as did the new and comprehensive approach called ecosystem management.²⁹

State capacities for environmental protection also grew markedly during the 1970s, and even more so during the 1980s and 1990s. Much of the justification for the strong federal role in environmental policy that began with enactment of the Clean Air Act Amendments in 1970 was predicated on the assumption that the states were, as Barry Rabe has put it, "mired in corruption, hostile to innovation, and unable to take a serious role in environmental policy out of fear of alienating key economic constituencies."³⁰ The newly empowered federal government, particularly the EPA, often battled fiercely with state and local officials, and the business community, as policies were put into effect. Surveys of state program administrators revealed great skepticism toward the EPA and the stringent and often rigid regulatory processes characteristic of policies enacted during the 1970s.³¹

Over time, however, the states greatly improved their technical, fiscal, and managerial capacities, and many were just as eager to tackle environmental and resource issues of concern to state residents as was the federal

government, or more so. By the 1980s (and even more evident by the 1990s), new calls for devolution of environmental responsibilities to the states became common as state governments emerged as the “new heroes” of American federalism. State bureaucracies expanded and became more professional, federal transfer dollars and new tax revenues greatly improved state fiscal conditions, and use of direct democracy provisions such as the initiative and referendum processes all suggested a sea change in state capability and in federal-state relations in environmental policy.³²

From Consensus to Conflict: Environmental Policy in the 1980s and 1990s

The 1970s were notable for the extent of public consensus on environmental quality goals and bipartisan cooperation on adoption of new and expansive environmental and natural-resource policies. The politics stream was supportive of these policy changes and public perception of environmental problems seemed to demand the kind of federally driven regulatory policies put into effect in the 1970s. The convergence of the three streams was not to last. In sharp contrast to the Environmental Decade, the 1980s stand out as an era of challenge and conflict over the goals and values of environmentalism and the specific public policies and programs adopted to help achieve them. As noted, even by the end of the 1970s, late in the Carter administration, concern over economic growth and inflation led to some skepticism about environmental policies that might have adverse economic effects.

We can consider much of the 1980s and 1990s to constitute a second era of environmental policy reform initiatives anchored in concern for efficiency and effectiveness. But this period also revealed strong political reaction or “brownlash”—particularly by ideological conservatives, the business community, and to some extent state and local governments—to expansion of the regulatory regime of the 1970s and the burdens, real and perceived, it placed on the nation. Compared to the 1970s, public confidence in government had declined considerably, concern over the health of the economy had risen, and the business community had greatly improved its lobbying presence in Washington, D.C. Taken together, these changes altered the political climate that so affects environmental politics and policy.

Implementation Problems and Policy Reform

By the late 1970s it became increasingly evident that implementation of new environmental policies was far more difficult than Congress had imagined, and that it often lagged years behind schedule. Much of the legislation of

the 1970s had overestimated the speed with which new technologies could be developed and applied. The laws also underestimated compliance costs and the difficulty of writing standards for hundreds of major industries. As regulated industries sought to block implementation and environmental organizations tried to speed it up, frequent legal challenges compounded the backlog. Other delays were caused by personnel and budgetary shortages, scientific and technical uncertainties, and the need for extensive consultation with other federal agencies, Congress, and state governments.³³

As a result of these difficulties, an extensive agenda for reforming environmental policies and improving administrative capabilities emerged by 1980. One would have expected the election of Ronald Reagan to provide an appropriate opportunity for a review and reassessment of environmental policy needs after the first experimental decade of the modern environmental era. It was not to be quite so simple, primarily because the political mood of the nation changed abruptly with the 1980 presidential election, and significantly altered the environmental policy agenda.

The Reagan Presidency and Its Impact

The Reagan presidency brought to the federal government a very different environmental policy agenda than Congress had established in the 1970s. Under Reagan, virtually all environmental protection and resource policies enacted during the previous decade, and in the 1960s, were reevaluated in light of the president's desire to reduce the scope of government regulation, shift responsibilities to the states, and rely more on the private sector.

These policy positions derived in large part from the work of conservative "think tanks" such as the Heritage Foundation, which played a key role in influencing the president's transition team. The formal transition task force on the environment, headed by Dan Lufkin, a former director of the Connecticut Department of Environmental Protection, was fairly balanced. It even included two former EPA administrators, William Ruckelshaus and Russell Train, widely respected within both parties. The task force produced a voluminous report for the president that called for moderate reforms that, as Russell Peterson, former head of the Council on Environmental Quality under Presidents Nixon and Ford, put it, "sought to maintain the momentum of environmental protection while allowing for some easing of regulation and for economic incentives for pollution control."³⁴ However, the task force's report was largely ignored and Reagan's transition staff chose instead to follow the more extreme recommendations of an ad hoc group of conservatives who rallied around the Heritage study, *Mandate for Leadership*.³⁵

Whatever the merits of Reagan's environmental policy agenda, it was put into effect through a risky strategy that relied on ideologically committed

presidential appointees to the EPA and the Agriculture, Interior, and Energy departments, and on sharp cutbacks in budgets for environmental programs.³⁶ In retrospect, it is apparent that such a strategy had almost no chance of success and that it would set back reform of environmental policies by a decade or more.

Among the most notable appointees in the Reagan administration were James G. Watt as Secretary of the Interior and Anne Burford as EPA administrator. Watt was an experienced administrator but highly antagonistic toward the resource preservation orientation of the Interior Department. Burford was an attorney with no experience in the environmental field, but determined to curtail environmental regulations and sharply constrain activities of the EPA that were thought to be harmful to the business community. Along with key appointees in other agencies and departments, Watt and Burford adhered closely to White House preferences for providing short-term regulatory relief to industry.

The administration paid far less attention to reform of environmental laws and administrative practices that might have improved the effectiveness and efficiency of environmental programs. Indeed, the president's administrative strategy appeared to be designed to reverse the institutionalization process described above, not to enhance agency effectiveness or to improve capabilities at the state level. Budgetary reductions would slow policy implementation, the authority of experienced professionals in environmental agencies would be weakened, and many offices, particularly at the EPA, would be eliminated or restructured, often leaving them unable to meet statutory responsibilities. Not surprisingly, staff morale and EPA credibility suffered under Burford's leadership, although both improved to some extent under administrators William Ruckelshaus (returning for a second tour of duty) and Lee Thomas late in the Reagan administration, and William Reilly in the Bush administration.³⁷

At the end of the Reagan presidency in January 1989, environmentalists still complained that there was no policy leadership at the EPA and that little had been done to restore the momentum of environmental protection that had characterized the 1970s. They also criticized President Reagan for failing to pursue regulatory reform, saying he "blew the chance to streamline regulations and use marketplace incentives in an honest way to speed up environmental progress, lower regulatory costs, and foster economic growth." Ironically, business groups remained dissatisfied with what they believed was still an unnecessarily expensive and rigid system of federal environmental regulation. And even conservative critics expressed disappointment with what the Heritage Foundation termed a "squandered" opportunity to reform environmental protection laws and reduce their cost.³⁸

There were two important consequences of the Reagan agenda for environmental policy and politics. One concerns the way in which Congress responded to the Reagan agenda and the perpetuation of the regulatory regime established in the 1970s. The other reflects the public reaction to Reagan's efforts and the impact on the environmental movement. Both have influenced environmental politics through the late 1990s.

Although Congress initially cooperated with Reagan, particularly in approving budget cuts, it soon reverted to its accustomed defense of existing environmental policy. Thus it frequently criticized the president's management of the EPA and the Interior Department under Burford and Watt, and both were forced to resign by the end of 1983. The lasting impact, however, flowed from the distrust of the EPA that the Reagan administration fostered among members of Congress. Because they had little faith in the White House's dedication to implementing policies faithfully, members began drafting far more detailed and demanding environmental laws. Prime examples are the renewal of the Resource Conservation and Recovery Act in 1984, and the enactment of the Superfund Amendments and Reauthorization Act in 1986 and the Safe Drinking Water Act in 1986.

The second effect was that, paradoxically, Reagan actually strengthened environmental forces in the nation. Through his administration's lax enforcement of pollution laws and pro-development resource policies, Reagan created political issues around which national and grassroots environmental groups could organize. They appealed successfully to a public that was increasingly disturbed by the health and environmental risks of industrial society and by threats to ecological stability. As a result, membership in national environmental groups soared and new grassroots organizations developed, creating further political incentives for environmental activism at all levels of government. The Sierra Club, for example, saw its membership increase from about 180,000 in 1980 to more than 600,000 by 1990, and the Wilderness Society leaped from 45,000 members in 1980 to 350,000 by 1990.³⁹

Those membership numbers suggest continued strong public concern for the environment and growing support for environmental policy. Survey data reinforce such conclusions. Surveys conducted throughout the 1980s indicate clearly that public support for environmental improvement, the driving force for policy development in the 1970s, increased markedly during the Reagan presidency and represented a stunning rejection of the president's agenda by the American public.⁴⁰ The lesson was not lost on Reagan's successor, George Bush. In a memorable speech near Detroit in August 1988, Bush openly broke with the Reagan administration, and promised to be "a Republican president in the Teddy Roosevelt tradition. A conservationist. An *environmentalist*."⁴¹

Conflict Continues Under Presidents Bush and Clinton

The emphasis in the second era of environmental policy on efficiency-based reform continued under President Bush and into Bill Clinton's presidency even as a third era began to emerge by the early 1990s. Especially in his first two years, Bush was eager as well to adopt a more positive environmental policy agenda than his predecessor, although his concern for limiting the costs and burdens of regulation was equally evident. He maintained an executive order mandating cost-benefit analysis for new environmental regulations that was first issued in 1981 in the Reagan administration, and he supplemented that process with a new White House oversight body, the Council on Competitiveness (chaired by Vice President Dan Quayle). The council was widely criticized for providing a "back door" for business groups eager to weaken environmental and other regulatory policies.⁴²

Bush's White House was deeply divided on environmental issues, from the Clean Air Act of 1990 to the position the United States should take on climate change at the UN Conference on Environment and Development (the Earth Summit) in 1992. For example, the EPA under William Reilly, fought continuously with the president's conservative advisers in the White House over the pace and stringency of environmental regulations. Running for reelection in 1992, Bush frequently criticized environmentalists as extremists who were putting Americans out of work. Bill Clinton took a far more supportive stance on the environment, symbolized by his selection of Senator Al Gore (D-Tenn.) as his running mate. Gore had been the leading environmentalist in the Senate and was the author of the best-selling *Earth in the Balance*.

Despite Al Gore's presence in the White House, many of the same conflicts over economic development and the environment, and concern over the costs and burdens of environmental regulation, were as evident in the Clinton administration as they had been under Bush. Clinton made repeated efforts to work with Congress to reform the major environmental statutes throughout the 1990s, but policy gridlock prevailed from 1993 through 1998, and political conditions worsened with the election of a Republican Congress in 1994.

Few analysts had predicted the astonishing outcomes of the 1994 mid-term elections in which Republicans won control of the House of Representatives for the first time in forty years. With the conservative, antigovernment "Contract with America" as the cornerstone of their legislative agenda in 1995 and 1996, the Republicans in Congress fought intensely to rein in what they saw as regulatory bureaucracies run amok. Environmental agencies such as the EPA became prime targets of their efforts to curtail bureau-

cratic power and reduce the costs of regulation. The new congressional environmental agenda was remarkably similar to the one initiated in the early 1980s in the Reagan administration. But this time the roles of the Congress and White House were reversed, with the Congress eager to cut environmental budgets and weaken regulations and the White House rising to their defense.

During the 104th Congress (1995-96), conservative Republican members pursued these goals with a revolutionary fervor. Environmental budgets were targeted for massive cuts, regulatory "reform" bills that would have undercut environmental rulemaking by the EPA and other agencies were pushed energetically, and attempts were made to revise most of the major environmental statutes by inserting more protection for business interests and property owners. The newly elected lawmakers rejected political compromise with their ideological foes and, led by a determined Speaker, Newt Gingrich (R-Ga.), they tended to give far less weight than previous Congresses to the essential tasks of policy deliberation, debate, and coalition building.

Initially these legislative measures appeared to be headed for approval by the entire Congress. For example, the House quickly passed a major regulatory reform bill that would have imposed stringent and burdensome requirements for cost-benefit analysis and risk assessment on the EPA and other agencies. That bill also would have required compensation to property owners when regulations under certain laws reduced property values by 20 percent or more. This provision reflected efforts by property rights groups to curtail so-called "regulatory takings" by federal and state agencies, stimulated by a 1992 Supreme Court case, *Lucas v. South Carolina Coastal Council*, that was favorable to property rights arguments.

By mid-1995, however, media coverage of the conflicts had escalated dramatically and the environmental community fought back furiously. The Natural Resources Defense Council in particular was successful in characterizing the budget cuts and attempts to change policies through appropriations "riders" as a "stealth attack" on environmental laws mounted at the behest of corporate polluters. The charge was later repeated by President Clinton and other administration officials. Clinton refused to back down on the sharp budget cuts voted by both houses, and he forced congressional Republicans to bear the brunt of the public's wrath over two government shutdowns that resulted.

Once again public support for environmental protection blunted radical efforts to backtrack on the policy commitments the nation made in the 1970s. For the most part, the anti-environmental agenda of the 104th Congress, and that of the somewhat less revolutionary 105th Congress, failed. Environmental agency budgets were restored and even improved somewhat. Most of the appropriation riders were defeated or removed before final pas-

sage of budget bills, and the broad-based attacks on regulatory rulemaking attracted insufficient support to gain congressional approval. However, few of the major environmental statutes could be reauthorized. Congress did approve new versions of pesticide control policy and amendments to the Safe Drinking Water Act, both in 1996. But members could not reach agreement on renewal of any of the other statutes, from the Endangered Species Act to Superfund and the Clean Water Act. That outcome meant that policies that had become seriously outmoded were left in place.⁴³

In some respects, then, the politics stream affecting environmental policy was mixed. Public support for environmental protection remained relatively firm, but opponents of environmental policy, from Wise Use and property rights groups to business and industry groups, were able to exert considerable pressure on the federal government and the states to limit regulation. The environmental "brownlash" that had been building since the early Reagan years flourished once again.⁴⁴ As the brief review of actions in the 104th and 105th Congresses illustrates, environmental groups were often capable of blocking their adversaries, but they were less able to fashion broadly acceptable compromises. Hence stalemate was a common outcome.

These constraints on statutory reform, notwithstanding, the Clinton White House and the EPA under Carol Browner pursued the reform agenda that had been built throughout the 1980s as both the federal government and the states attempted to shift environmental policy from an adversarial command-and-control system to one characterized more by collaboration between government and industry, flexibility in rulemaking, greater use of economic incentives, and improved federal-state relations. Those actions were part of a broader political agenda in the Clinton administration to "reinvent" government by improving its performance and responsiveness to the public.⁴⁵ Some of the same kinds of changes were evident in natural-resources policy, especially under Interior Secretary Bruce Babbitt. Babbitt sought to eliminate long-standing subsidies to timber, mining, and ranching interests and to institute a new philosophy of ecosystem management within the department.⁴⁶

Sustainability-Based Environmental Policy in the 1990s

The third era of environmental policy and politics is a work in progress. It builds on efforts over the past two decades to reformulate policies approved in the 1970s to improve their effectiveness and efficiency. But it also contains the seeds of a far more significant shift in thinking and action grounded in the concept of sustainability. In many ways, the ultimate end of environ-

mental policy is sustainable development. Yet this goal often was lost sight of as public officials and regulated parties focused on actions required by command-and-control legislation.

It is clear, however, that in sectors as diverse as air and water pollution, energy use, agriculture, home and commercial construction, transportation, land use, and urban planning, environmental goals must be integrated with economic and social goals. Among other matters, this means that policies must take into account the growth in human population and our seemingly insatiable appetite for consumption of natural resources. This task is well beyond the capacity of the media-specific environmental policies of the 1970s and 1980s, particularly in light of the intense political conflict that had developed over their prescribed policy strategies and styles of implementation.

By the early 1990s, national political leaders had begun to recognize the imperative of sustainability, even if the meaning of the concept remained unclear. One can point, for example, to actions taken at the 1992 Earth Summit and its *Agenda 21* blueprint for sustainable development in the twenty-first century, and to reports such as the Brundtland Commission's *Our Common Future*, released in 1987, and the National Commission on the Environment's *Choosing a Sustainable Future* in 1993.⁴⁷

More recently, the Clinton administration's President's Council on Sustainable Development (PCSD) issued a set of reports urging the nation to reconcile social, economic, and environmental goals at all levels of government and to pursue a broad agenda of sustainable development. The PCSD used what had become the dominant, almost official, definition of sustainable development first coined by the Brundtland Commission nearly a decade earlier: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."⁴⁸ But as a practical matter, sustainability refers to any significant changes in values, public policies, and actions (public or private sector) that facilitate movement toward three key components: ecological integrity or health, social or community well-being, and economic health and vitality.

As noted earlier, there is no shortage of competing definitions of sustainability, nor of arguments about whether the concept is sufficiently clear and measurable to serve as a foundation for policy actions from the local to the national and international level. One could, of course, be skeptical of many of the assertions being made, as is always the case with ill-defined social change. At the same time, the wide embrace of sustainability as a way of thinking about long-term environmental quality goals that can be integrated with economic and social goals is politically intriguing. So too is the thriving industry in devising sustainability indicators for communities

and regions striving to clarify their goals and measure their progress toward them.⁴⁹

Evidence of a movement toward sustainability-based environmental policy could be found almost everywhere by the mid-1990s. Consider, for example, the Clinton administration's reinvention of government efforts beginning with the National Performance Review of 1993 and the initiation of a diversity of pilot programs and policy experiments by the EPA in the mid-1990s. These include the agency's Common Sense Initiative, Project XL, and what it has called Community-Based Environmental Protection (CBEP).

CBEP is especially interesting. The EPA argues that it is to be a foundation for a new generation of environmental protection that is more comprehensive and better integrated with economic development. The agency maintains that such an emphasis at the community level holds great promise for addressing many of the serious defects of contemporary environmental regulation.⁵⁰ There are good reasons to support that position. Yet there is also the potential that community-based environmental policy could result in a weakening of the protections afforded under federal law, depending on local economic and political pressures. The same risk is presented if federal environmental responsibilities are increasingly delegated to the fifty states without sufficient mechanisms of oversight and accountability. Indeed, the National Academy of Public Administration had warned of this possibility in its widely read 1995 study, and other scholars have issued similar advisories about a possible "race to the bottom" as states (and communities) are freed from restrictive federal regulations.⁵¹

It is too early to speak confidently of how far this transition to sustainability-based environmental policy will go, how fast it will occur, or how successful it will be in addressing the major environmental challenges facing the nation and the world. Yet there is little question that a shift has begun from the era of environmental regulation that dominated the 1970s and 1980s to a more diversified set of environmental policies rooted in the long-term goal of sustainability. One can see it in the transition to ecosystem management in public lands agencies, in the use of collaborative decisionmaking by the EPA and state environmental protection agencies, in the new optimism about use of market-based incentives to supplement or replace regulation, and in many other aspects of environmental decisionmaking in the late 1990s.⁵² Increasingly, the political mood of the nation appears to favor a pragmatic search for environmental policies that "work," that is, that achieve environmental quality goals and also help to integrate economic and social concerns with environmental quality. Thus in many respects, support for the generation of environmental policies enacted during the 1970s and 1980s is changing significantly as the search

continues for newer policy strategies that are better suited for the problems and political climate of the late 1990s.

Progress in Achieving Environmental Policy Goals?

As noted, one of the most important questions raised about the past three decades of environmental policy is whether policy goals have been met, and at reasonable cost. The answers are clearly pertinent for the choice of policy approaches to be used in the future. For many reasons, however, it is difficult both conceptually and empirically to measure the success or failure of environmental policies. These constraints have not prevented a lively debate between what are usually termed optimists and pessimists over just how much progress has been made. This is especially so in light of continuing criticism of the adversarial character, intrusiveness, inflexibility, high costs, and inefficiencies of environmental protection policy.⁵³ As might be expected, assessments of the evidence tend to reflect the different political agendas and ideologies found among participants in these debates.

Even without the confusion fostered by such popular debates over policy efficacy, consider the challenge of interpreting the evidence. If the nation has made substantial gains, does this imply that we have done enough and perhaps should pull back, or at least not press strongly for further advancement? If the gains are fairly modest, what are the policy implications? Should we redouble our regulatory efforts, spend more money on research, and adopt more stringent monitoring and enforcement strategies? Or should conventional regulatory approaches be abandoned in favor of market-based incentives and other new policy instruments? As Robert Bartlett has suggested, even if short-term gains in measurable environmental-quality outcomes are decidedly limited and trenchant criticisms are offered by regulated parties and others, environmental policies such as Superfund and the Endangered Species Act may have enormous symbolic value, and they may deeply affect public attitudes and fundamentally alter institutional practices. Thus such policies may well have much greater success in the long term in changing human behavior and environmental quality than is likely to be revealed in any conventional policy or program evaluation.⁵⁴

These kinds of judgments about specific policy success and failure and larger questions about the impact of the environmental movement itself on environmental quality and human health are made even more difficult because the achievements and policy implications vary substantially from one policy area to the next. Strong gains in air quality may occur while little improvement is seen in nonpoint water pollution, control of toxic chemi-

icals, cleaning up of hazardous-waste sites, or protection of biological diversity. Moreover, some regions and localities may experience progress while others suffer decline.

The EPA, Interior Department, and other federal agencies have provided abundant data from which such judgments can be made, although not without some difficulty. The data have been collected inconsistently over the past three decades and they are not always valid. By the late 1990s, data collection had improved greatly, although it remained uneven and not always helpful for the purposes of policy evaluation and change.⁵⁵ Nonetheless, some conclusions can be drawn on the basis of available evidence.

The overall picture is one of improving environmental quality, or at least prevention of a worsening of environmental and public health risks. Gains in air quality are the most impressive. For example, the EPA reports that between 1970 and 1996, total emissions of the six principal or "criteria" air pollutants decreased by some 32 percent even while the nation's population grew by 29 percent, the gross domestic product rose by 104 percent, and vehicle miles traveled increased by 121 percent. Such impressive air-quality gains continued for the most recent ten-year period: 1987 through 1996, although in 1996 some 46 million people lived in counties that failed to meet at least one of the national air-quality standards, typically for ozone.⁵⁶

The nation's water quality also has improved since passage of the Clean Water Act of 1972, although more slowly and more unevenly across the country than has air quality. There has been a major reduction in the raw pollution of surface waters, and the percentage of the U.S. population served by wastewater treatment plants rose dramatically (from 42 percent in 1970 to 74 percent by 1985). There have been striking declines since 1972 in the discharge of priority toxic organic pollutants and toxic metals. Thus surface water quality generally is getting better even if major problems remain. The most recent national surveys indicate that 64 percent of surveyed river and stream miles fully support all uses set by states and tribes, with some 36 percent found to be impaired to some degree—as were some 39 percent of lakes, ponds, and reservoirs.⁵⁷ Prevention of further degradation of water quality in the face of a growing population and strong economic growth could be considered an important achievement. At the same time, water quality falls short of the goals of federal clean water laws despite the expenditure of more than \$700 billion in public and private funds since 1972.

A similar portrait could be painted for protection of natural resources (parks, wilderness, wild rivers, wildlife refuges, endangered species) and for cleanup of Superfund and other hazardous-waste sites. Evidence of progress is readily apparent, but generally less than environmentalists and most policymakers would like to have seen by the late 1990s.⁵⁸

As suggested, limited achievements may be associated with insufficient funds for full policy implementation (clearly a factor for the Endangered Species Act), and with related bureaucratic characteristics such as poor management, weak or nonexistent program evaluations, and inappropriately trained staff. Among other reasons often cited for modest achievement of policy goals are significant opposition over time by businesses and property owners, delays attributable to the adversarial processes of regulation (including litigation), the inordinately complex procedural requirements of the laws, and the intractable nature of many environmental problems themselves. Whatever the explanation, the mixed record of environmental and natural-resource policies can be used to support arguments that the policies have worked and should be maintained or strengthened, or that they have fallen short of expectations and should be replaced or supplemented with new approaches.

Conclusions

In this article I have tried to provide an overview of environmental policy and politics from the 1960s to the late 1990s. In doing so I have made use of several related agenda-setting frameworks that help to explain the key developments that have occurred. As this review makes clear, environmental policy and politics are a reflection of the larger social, economic, technological, and political forces in society, and of the special circumstances that have characterized the past three decades. Such a view suggests that similar forces will shape environmental policy and politics as we enter the twenty-first century.

The past thirty years have brought both incremental and radical changes to environmental policy. The regulatory regime established during the 1970s was significantly different from what came before; in many respects it constituted a major departure from prevailing practices of the 1960s. During the 1980s and 1990s we have seen chiefly evolutionary adjustments to that collection of policies, agencies, and practices. However, the third major era of environmental policy, firmly attached to the concept of sustainability, has the potential of shifting the character of environmental policy, and the political relationships associated with it, dramatically.

Despite the many valid criticisms directed at federal environmental policies from the 1970s, they continue in force. There is also some fairly good evidence that they have materially improved environmental quality, albeit not always at a reasonable cost and usually not as much as both environmentalists and policymakers had hoped. That success should signal the need to maintain a federal regulatory presence in environmental policy even as the

search continues for new approaches that promise to be more effective and efficient and more easily integrated with other social goals. When those new approaches are adopted, they should be subject to the same kinds of rigorous evaluation to be confident that they do indeed offer the advantages over established policy strategies that their proponents suggest.

The sometimes intense political conflicts over environmental policies during the past two decades also should tell us that reform of the existing statutes will not be easy. The recent movement toward sustainability will likely face comparable, if not greater, political obstacles. Nonetheless, dealing effectively with the daunting challenges of contemporary environmental problems such as energy use and climate change, protection of biological diversity, and human population growth demands a concerted effort to re-design environmental policy for the twenty-first century.

University of Wisconsin–Green Bay

Notes

1. This article draws from my text *Environmental Policy and Politics* (New York, 1996), a new edition of which is in progress for Longman, to be published in 2000; Michael E. Kraft and Norman J. Vig, "Environmental Policy from the 1970s to 2000: An Overview," in *Environmental Policy: New Directions for the Twenty-first Century*, ed. Norman J. Vig and Michael E. Kraft (Washington, D.C., 1999); and Daniel A. Mazmanian and Michael E. Kraft, eds., *Toward Sustainable Communities: Transition and Transformations in Environmental Policy* (Cambridge, Mass., 1999).

2. John Kingdon, *Agendas, Alternatives, and Public Policy*, 2d ed. (New York, 1995); Paul A. Sabatier and Hank C. Jenkins-Smith, *Policy Change and Learning: An Advocacy Coalition Approach* (Boulder, Colo., 1993); and Frank R. Baumgartner and Bryan D. Jones, *Agendas and Instability in American Politics* (Chicago, 1993). I provide a fuller discussion of the frameworks and a narrative history of U.S. environmental policy in Kraft, *Environmental Policy and Politics*, chap. 3.

3. The role of disasters as catalytic or focusing events in agenda setting is assessed in Thomas A. Birkland, *After Disaster: Agenda Setting, Public Policy, and Focusing Events* (Washington, D.C., 1997). Birkland investigates the impact of natural disasters, oil spills (both the Exxon Valdez and the Santa Barbara incidents), and nuclear accidents in altering the environmental policy agenda.

4. Christopher J. Bosso, "Environmental Groups and the New Political Landscape," in *Environmental Policy*, ed. Vig and Kraft.

5. Birkland, *After Disaster*.

6. The use of such communication strategies to shape the agenda-setting process is described in some detail in Michael E. Kraft and Diana Wuertz, "Environmental Advocacy in the Corridors of Government," in *The Symbolic Earth: Discourse and Our Creation of the Environment*, ed. James G. Cantrill and Christine L. Oravec (Lexington, Ky., 1996).

7. Scott R. Furlong, "Interest Group Influence on Rulemaking," *Administration and Society* 29 (July 1997): 325–47; and Kay Lehman Schlozman and John T. Tierney, *Organized Interests and American Democracy* (New York, 1986).

8. Baumgartner and Jones, *Agendas and Instability in American Politics*; and Christopher J. Bosso, *Pesticides and Politics: The Life Cycle of a Public Issue* (Pittsburgh, 1987).

9. This argument is presented at length in Daniel A. Mazmanian and Michael E. Kraft, "The Three Epochs of the Environmental Movement," in *Toward Sustainable Communities*, ed. Mazmanian and Kraft.

10. See Lamont C. Hempel, "Conceptual and Analytical Challenges in Building Sustainable Communities," in *Toward Sustainable Communities*, ed. Mazmanian and Kraft; and President's Council on Sustainable Development, *Sustainable America: A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future* (Washington, D.C., 1996).

11. Kraft and Vig, "Environmental Policy from the 1970s to 2000." The value change is described best by Samuel P. Hays in *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955–1985* (New York, 1987). Documentation of the rise of environmentalism as a new set of public values can be found in Robert C. Paehlke, *Environmentalism and the Future of Progressive Politics* (New Haven, 1989). Public attitudes revealed in a large number of surveys are explored in detail in Riley E. Dunlap, "Public Opinion and Environmental Policy" in *Environmental Politics and Policy: Theories and Evidence*, 2d ed., ed. James P. Lester (Durham, N.C., 1995).

12. See Paul J. Culhane, *Public Lands Politics: Interest Group Influence on the Forest Service and the Bureau of Land Management* (Baltimore, 1981), chap. 1; Kraft, *Environmental Policy and Politics*, chap. 5; Christopher McGrory Klyza, *Who Controls Public Lands? Mining, Forestry, and Grazing Politics, 1870–1990* (Chapel Hill, 1996); Charles Davis, ed., *Western Public Lands and Environmental Politics* (Boulder, Colo., 1997); and Michael J. Lacey, ed., *Government and Environmental Politics: Essays on Historical Developments Since World War Two* (Baltimore, 1989).

13. Michael E. Kraft, "Population Policy," in *Encyclopedia of Policy Studies*, 2d ed., ed. Stuart S. Nagel (New York, 1994); and Phyllis T. Piotrow, *World Population Crisis: The United States Response* (New York, 1973).

14. Kraft, "Population Policy," and Laurie Ann Mazur, ed., *Beyond the Numbers: A Reader on Population, Consumption, and the Environment* (Washington, D.C., 1994). As a sign of continuing neglect of population issues, the Carter administration's 1980 *Global 2000 Report to the President*, which emphasized projections of substantial and harmful population growth, had little apparent impact on policymakers or the public. The report was strongly repudiated by the Reagan White House. The Reagan administration commissioned another set of studies to try to refute the Carter effort, and they were published eventually in an edited volume, Julian L. Simon and Herman Kahn, eds., *The Resourceful Earth: A Response to "Global 2000"* (New York, 1984).

15. Evan J. Ringquist, *Environmental Protection at the State Level: Politics and Progress in Controlling Pollution* (Armonk, N.Y., 1993), chap. 2; and J. Clarence Davies III and Barbara S. Davies, *The Politics of Pollution*, 2d ed. (Indianapolis, 1975).

16. See Kraft, *Environmental Policy and Politics*, 75; and Bosso, "Seizing Back the Day."

17. Anthony Downs, "Up and Down with Ecology—The Issue-Attention Cycle," *The Public Interest* (Summer 1972): 38–50; and Dunlap, "Public Opinion and Environmental Policy."

18. Richard A. Harris and Sidney M. Milkis, *The Politics of Regulatory Change: A Tale of Two Agencies* (New York, 1989).

19. For a description of the major acts, see Kraft, *Environmental Policy and Politics*; Walter A. Rosenbaum, *Environmental Politics and Policy*, 4th ed. (Washington, D.C., 1998); and Vig and Kraft, eds., *Environmental Policy*, appendix 1.

20. See Charles O. Jones, *Clean Air: The Policies and Politics of Pollution Control* (Pittsburgh, 1975).

21. John C. Whitaker, *Striking a Balance: Environment and Natural Resource Policy in the Nixon-Ford Years* (Washington, D.C., 1976).

22. Michael E. Kraft, "Environmental Policy in Congress," and Sheldon Kamieniecki, "Political Parties and Environmental Policy," in *Environmental Politics and Policy*, ed. Lester.

23. Jones, *Clean Air*.

24. Whitaker, *Striking a Balance*; Robert A. Shanley, *Presidential Influence and Environmental Policy* (Westport, Conn., 1992); and Norman J. Vig, "Presidential Leadership and the Envi-

ronment," in *Environmental Policy in the 1990s: Toward a New Agenda*, 2d ed., ed. Norman J. Vig and Michael E. Kraft (Washington, D.C.).

25. Dunlap, "Public Opinion and Environmental Policy."

26. See Vig and Kraft, *Environmental Policy*, appendices 2, 3, and 4.

27. On the important role of the courts in overseeing such administrative developments and their contribution to the establishment of environmental law, see Lettie M. Wenner, *The Environmental Decade in Court* (Bloomington, 1982), and Rosemary O'Leary, *Environmental Change: Federal Courts and the EPA* (Philadelphia, 1993).

28. See Richard N. L. Andrews, *Environmental Policy and Administrative Change: Implementation of the National Environmental Policy Act* (Lexington, Mass., 1976); Caldwell, *Science and the National Environmental Policy Act*; and Robert V. Bartlett, ed., *Policy Through Impact Assessment: Institutionalized Analysis as a Policy Strategy* (New York, 1989).

29. See Jeanne Nienaber Clarke and Daniel C. McCool, *Staking Out the Terrain: Power and Performance Among Natural Resource Agencies*, 2d ed. (Albany, 1996); and Hanna J. Cortner and Margaret A. Moote, *The Politics of Ecosystem Management* (Washington, D.C., 1998).

30. Barry G. Rabe, "Power to the States: The Promise and Pitfalls of Decentralization," in *Environmental Policy in the 1990s*, 3d ed., ed. Norman J. Vig and Michael E. Kraft (Washington, D.C., 1997), 31.

31. See Michael E. Kraft, Bruce B. Clary, and Richard J. Tobin, "The Impact of New Federalism on State Environmental Policy: The Great Lakes States," in *The Midwest Response to the New Federalism*, ed. Peter K. Eisinger and William Gormley (Madison, Wis., 1988); and Richard J. Tobin, "Environmental Protection and the New Federalism: A Longitudinal Analysis of State Perceptions," *Publius: The Journal of Federalism* 22 (Winter 1992): 93-107.

32. Rabe, "Power to the States." See also DeWitt John, *Civic Environmentalism: Alternatives to Regulation in States and Communities* (Washington, D.C., 1994); Ringquist, *Environmental Protection at the State Level*; and William R. Lowry, *The Dimensions of Federalism: State Governments and Pollution Control Policies* (Durham, N.C., 1992).

33. Alfred A. Marcus, *Promise and Performance: Choosing and Implementing Environmental Policy* (Westport, Conn., 1980); Wenner, *The Environmental Decade in Court*; O'Leary, *Environmental Change*; Ringquist, *Environmental Protection at the State Level*; and Marc K. Landy, Marc J. Roberts, and Stephen R. Thomas, *The Environmental Protection Agency: Asking the Wrong Questions*, 2d ed. (New York, 1994).

34. Michael E. Kraft, "A New Environmental Policy Agenda: The 1980 Presidential Campaign and Its Aftermath," in *Environmental Policy in the 1980s: Reagan's New Agenda*, eds., Norman J. Vig and Michael E. Kraft (Washington, D.C., 1984), 38.

35. Charles L. Heatherly, ed., *Mandate for Leadership: Policy Management in a Conservative Administration* (Washington, D.C., 1981). The key environmental policy recommendations can be found in Louis J. Cordia, "Environmental Protection Agency," and James E. Hinish Jr., "Regulatory Reform: An Overview," in this volume.

36. Vig and Kraft, *Environmental Policy in the 1980s*. See also George C. Eads and Michael Fix, *Relief or Reform? Reagan's Regulatory Dilemma* (Washington, D.C., 1984).

37. Vig and Kraft, *Environmental Policy in the 1980s*; and Paul R. Portney, ed., *Natural Resources and the Environment: The Reagan Approach* (Washington, D.C., 1984).

38. See Philip Shabecoff, "Reagan and Environment: To Many a Stalemate," *New York Times*, 2 January 1989, 1, 8.

39. Bosso, "Environmental Groups and the New Political Landscape," 64.

40. See Riley E. Dunlap, "Public Opinion on the Environment in the Reagan Era," *Environment* 29 (July-August 1987): 6-11, 32-37.

41. John Holusha, "Bush Pledges Aid for Environment," *New York Times*, 1 September 1988, 9.

42. See Gary C. Bryner, *Blue Skies, Green Politics: The Clean Air Act of 1990 and Its Implementation* (Washington, D.C., 1995).

43. Michael E. Kraft, "Environmental Policy in Congress: From Consensus to Gridlock," in *Environmental Policy*, ed. Vig and Kraft.

44. See Jacqueline Vaughn Switzer, *Green Backlash: The History and Politics of Environmental Opposition in the U.S.* (Boulder, Colo., 1997).

45. John, *Civic Environmentalism*; Mazmanian and Kraft, eds., *Toward Sustainable Communities*; National Academy of Public Administration, *Setting Priorities, Getting Results: A New Direction for EPA* (Washington, D.C., 1995); and Michael E. Kraft and Denise Scheberle, "Environmental Federalism at Decade's End: New Approaches and Strategies," *Publius* 28:1 (Winter 1998): 133-46.

46. For a history of how the new approach of ecosystem management developed and gradually replaced older paradigms in natural-resources management, see Cortner and Moote, *The Politics of Ecosystem Management*. A somewhat parallel argument in support of using ecological principles to shape environmental policy can be found in Marian R. Chertow and Daniel C. Esty, eds., *Thinking Ecologically: The Next Generation of Environmental Policy* (New Haven, 1997).

47. United Nations, *Agenda 21: The United Nations Programme of Action from Rio* (New York, 1992); World Commission on Environment and Development, *Our Common Future* (New York, 1987); National Commission on the Environment, *Choosing a Sustainable Future* (Washington, D.C., 1993).

48. President's Council on Sustainable Development, *Sustainable America*. A summary of recommendations found in other reports by the PCSD can be found in Daniel Sitarz, ed., *Sustainable America: America's Environment, Economy and Society in the 21st Century* (Carbondale, Ill., 1998).

49. See, for example, Sitarz, ed., *Sustainable America*, and Hempel, "Conceptual and Analytical Challenges in Building Sustainable Communities."

50. U.S. Environmental Protection Agency, *People, Places, and Partnerships: A Progress Report on Community-Based Environmental Protection* (Washington, D.C., 1997), and *EPA Strategic Plan* (Washington, D.C., 1998). See also Kraft and Scheberle, "Environmental Federalism at Decade's End."

51. National Academy of Public Administration (NAPA), *Setting Priorities, Getting Results*. See also Rabe, "Power to the States."

52. See Mazmanian and Kraft, *Toward Sustainable Communities*, and Ken Sexton, Alfred A. Marcus, K. William Easter, and Timothy D. Burkhardt, eds., *Better Environmental Decisions: Strategies for Governments, Businesses, and Communities* (Washington, D.C., 1999).

53. See Sexton et al., *Better Environmental Decisions*; NAPA, *Setting Priorities; Getting Results*; and J. Clarence Davies and Jan Mazurek, *Pollution Control in the United States: Evaluating the System* (Washington, D.C., 1998).

54. See Robert V. Bartlett, "Evaluating Environmental Policy Success and Failure," in *Environmental Policy in the 1990s*, 2d ed., ed. Norman J. Vig and Michael E. Kraft (Washington, D.C., 1994).

55. Davies and Mazurek, *Pollution Control in the United States*; Evan J. Ringquist, "Evaluating Environmental Policy Outcomes," in *Environmental Politics and Policy*, ed. Lester; and Gerrit J. Knaap and Tschangho John Kim, eds., *Environmental Program Evaluation: A Primer* (Champaign, Ill.).

56. Environmental Protection Agency, *National Air Quality and Emissions Trends Report* (Research Triangle Park, N.C.: Office of Air Quality Planning and Standards, January 1998).

57. U.S. Environmental Protection Agency, *National Water Quality Inventory: 1996 Report to Congress* (Washington, D.C.: Office of Water, April 1998). See also Debra S. Knopman and Richard A. Smith, "Twenty Years of the Clean Water Act," *Environment* 35 (January-February 1993), 17-20, 34-41; and Council on Environmental Quality, *Environmental Quality: Twenty-fifth Anniversary Report* (Washington, D.C., 1997), chap. 13.

58. For a brief review of the evidence, see Kraft and Vig, "Environmental Policy from the 1970s to 2000"; Davies and Mazurek, *Pollution Control in the United States*; and Council on Environmental Quality, *Environmental Quality*.