

THE LOST GENERATION: ENVIRONMENTAL REGULATORY REFORM IN THE ERA OF CONGRESSIONAL ABDICATION

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ABSTRACT

Congress constructed the entirety of the modern federal environmental regulatory system between 1970 and 1990. However, due to ever increasing political polarization and gridlock, Congress has abdicated its responsibility as the primary national environmental policymaker over the past 25 years. Since 1990, no major environmental legislation has been enacted, leading to a growing sense that the federal system has become stagnated and obsolescent. Since the mid-1990s, concerns over the effectiveness, inefficiencies, and under-inclusiveness of the federal system have led to a robust reform movement seeking to build the “next generation” of environmental regulation. Because of Congress’s inability to enact environmental legislation, however, such reform efforts have largely centered on numerous, primarily voluntary executive branch “reinvention” initiatives at EPA. Congress’s failure to support these efforts, through legislation or otherwise, has severely undermined the ability of these efforts to achieve meaningful success, leading to a “lost generation” of environmental regulatory reform. This Article surveys the most widely promoted and analyzed of the “next generation” environmental regulatory reform proposals and calls on Congress to accept reform advocates’ challenge to improve and modernize a severely outdated regulatory system.

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I. INTRODUCTION

On January 1, 1970, President Richard M. Nixon signed the National Environmental Policy Act (NEPA)¹ on national television, declaring that the 1970s would be the “decade of the environment.”² This event precipitated an explosion of legislative activity that ushered in the modern environmental regulatory era. During the next two decades, from the signing of NEPA through the end of 1990, Congress enacted all of the major legislation constituting the United States modern federal environmental regulatory system.³ The vast

1. Pub. L. No. 91-190, 83 Stat. 852 (1969) (codified as amended at 42 U.S.C. §§ 4321–4370h).

2. Richard N. L. Andrews, *The EPA at 40: An Historical Perspective*, 21 DUKE ENVTL. L. & POL’Y F. 223, 227 (2011).

3. Cary Coglianese, *Social Movements, Law, and Society: The Institutionalization of the Environment*, 150 U. PA. L. REV. 85, 97-98 (2001) [hereinafter Coglianese, *Social Movements*]; Sandra Zellmer, *Treading Water While Congress Ignores the Nation’s Environment*, 88 NOTRE DAME L. REV. 2323, 2328 (2014).

majority of these statutes were enacted between 1970 and 1977, with some new statutes and several major amendments to 1970s statutory programs enacted between 1980 and 1990.⁴ In the ensuing three decades, however, environmental lawmaking in Congress has come to a grinding halt.⁵ Congress has not passed any major environmental legislation since 1990,⁶ creating a “policymaking vacuum” that seriously impairs the vitality and effectiveness of the nation’s legal environmental protection framework.⁷

This Article examines Congress’ wholesale abdication since 1990 of its responsibility to improve, modernize, and reform a badly outdated federal environmental regulatory system. Critical environmental protection problems that have challenged society since the mid-20th century have continued to flourish in the 25 years since Congress last enacted a major piece of environmental legislation. Policymakers have long sought effective and efficient ways to solve such problems, with particular emphasis on curbing the harmful impacts of corporate and industrial behavior. Environmental protection became an enormously divisive political issue in the United States during the 1990s as policymakers stridently debated the effectiveness and efficiency of direct regulatory approaches in light of their tremendous associated costs.⁸ Since that time, the political consensus necessary for enactment of statutory authority for new or expanded mandatory regulatory programs to achieve desired environmental outcomes has been impossible to obtain.⁹

Concern over the effectiveness and efficiency of traditional environmental regulatory strategies has encouraged considerable exploration of potentially viable alternative approaches, either as

4. Coglianesi, *Social Movements*, *supra* note 3, at 97 & n.63.

5. Todd S. Aagaard, *Environmental Law Outside the Canon*, 89 IND. L. J. 1239, 1240–41 (2014).

6. See Jonathan H. Adler, *Conservative Principles in Environmental Reform*, 23 DUKE ENVTL. L. & POL’Y F. 253, 253 & n.3 (2013) (noting the enactment of a very few “minor environmental bills” since 1990 none of which made “significant changes to the nation’s primary pollution control or conservation statutes”).

7. Zellmer, *supra* note 3, at 2324.

8. See David W. Case, *The EPA’s Environmental Stewardship Initiative: Attempting to Revitalize a Floundering Regulatory Reform Agenda*, 50 EMORY L.J. 1, 23–26 (2001) [hereinafter Case, *Regulatory Reform Agenda*] (describing specific environmental and political issues that divided policymakers in the 1990s).

9. See *id.*; RICHARD N. L. ANDREWS, *MANAGING THE ENVIRONMENT, MANAGING OURSELVES: A HISTORY OF AMERICAN ENVIRONMENTAL POLICY* 282–83 (2d ed. 2006) (finding that political conflict and distrust prevent policymakers from developing consensus on environmental issues).

substitutes for or as supplements to direct legal controls on corporate and industrial behavior. Over the last two decades, substantial experimentation has taken place with alternative environmental regulatory reform programs in the United States.¹⁰ The primary focus was several reform or “reinvention” initiatives begun during the 1990s by the United States Environmental Protection Agency (EPA) under the Clinton Administration.¹¹ These efforts are viewed as having produced mixed and somewhat disappointing results.¹² Nonetheless, the public policy debate over strategies to improve the effectiveness of existing environmental regulatory systems continues, as does the search for innovative alternatives.¹³

The increasing complexity and scale of environmental challenges provides even greater incentive to employ alternative strategies to improve and supplement traditional approaches to regulating corporate and industrial environmental behavior.¹⁴ The globalization of national economies has created wide-ranging environmental impacts throughout the world.¹⁵ The costs necessary to respond to the next generation of environmental challenges—especially climate change, biodiversity loss, non-point source water pollution, and myriad threats to vital ecosystems—will be enormous.¹⁶ In fact, the

10. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 40–46, 64–87 (reviewing several Clinton-era reform initiatives designed to experiment with alternative approaches to environmental regulation in the United States).

11. *Id.* at 3–4 & n.7, and sources cited therein.

12. *Id.*

13. See, e.g., Adler, *supra* note 6, at 253–54 (“Major environmental policy reform is long overdue.”); CHRISTOPHER MCGRORY KLYZA & DAVID J. SOUSA, AMERICAN ENVIRONMENTAL POLICY: BEYOND GRIDLOCK x (2013) (“Despite congressional gridlock, environmental policymaking remains, and strong pressures for change play out along [alternative policymaking] pathways.”); Nicole Darnall & Stephen R. Sides, *Assessing the Performance of Voluntary Environmental Programs*, 36 POL’Y STUD. J. 95, 97 (2008) (examining the promotion of voluntary environmental programs as alternative approaches to traditional environmental regulation); Cary Coglianese & Jennifer Nash, *Management-Based Strategies: An Emerging Approach to Environmental Protection*, in LEVERAGING THE PRIVATE SECTOR: MANAGEMENT BASED STRATEGIES FOR IMPROVING ENVIRONMENTAL PERFORMANCE 3 (Cary Coglianese & Jennifer Nash eds., 2006) [hereinafter Coglianese & Nash, *Management-Based Strategies*] (examining “management-based” regulatory strategies to encourage or mandate adoption of formalized environmental management systems to pursue environmental performance improvements not achievable solely through traditional regulatory approaches); LeRoy C. Paddock, *Green Governance: Building the Competencies Necessary for Effective Environmental Management*, 38 ENVTL. L. REP. 10609, 10609 (2008) (calling for reform in environmental governance by integrating alternative regulatory approaches into direct regulatory systems to control corporate environmental behavior).

14. Paddock, *supra* note 13, at 10609.

15. *Id.* at 10609–10.

16. *Id.* at 10610.

funding necessary to seriously tackle such problems will substantially dwarf that typically provided under traditional environmental regulatory programs in recent decades.¹⁷ For these reasons, it has long been imperative that Congress move to integrate the traditional direct approach of mandatory environmental regulation with various indirect measures for controlling corporate environmental behavior.¹⁸ During the last three decades, however, instead of taking such action to improve and modernize the federal environmental regulatory system, Congress has done nothing.

Section II of this Article surveys the construction of the existing environmental regulatory system by Congress, largely created during the era of bipartisanship that prevailed during the “environmental decade” of the 1970s. Such bipartisanship in Congress on environmental issues sharply receded during the 1980s and 1990s, and in the present, is a long-forgotten memory amidst the current dysfunction and gridlock that prevails between the major political parties. Section III examines the history of the “next generation” environmental reform movement that reached its peak in the mid to late-1990s, and which has declined considerably—although by no means disappeared—since the turn of the century.

Section IV of this Article surveys the most widely promoted and analyzed of the “next generation” environmental regulatory reform proposals. Section V examines the affect that congressional abdication of responsibility for the federal environmental regulatory system since 1990 has had on the efficacy of “next generation” reform efforts. The lackluster results of these primarily executive-branch-initiated efforts are directly attributable to Congress’ failure to support environmental policy reform through legislation or otherwise. Congress’ inaction has led to a “lost generation” of environmental regulatory reform over the past quarter of a century. This Article concludes with a call for Congress to once again assume the primary role in environmental policymaking that it occupied forty years ago, and to accept reform advocates’ challenge to modernize a stagnated and increasingly obsolescent federal environmental regulatory system.

17. *Id.*

18. *Id.* at 10609–10; *see also* KLYZA & SOUSA, *supra* note 13, at 310 (“The ambition to reconstruct environmental regulation along next generation lines remains vital, energized as it is by the well-known shortcomings of traditional approaches to regulation.”).

II. CREATING THE “FIRST GENERATION” OF THE FEDERAL ENVIRONMENTAL REGULATORY SYSTEM: FROM BIPARTISANSHIP TO GRIDLOCK

Congress’ entry into the field of environmental protection was gradual. Environmental protection challenges in the United States proliferated with the growth of major population centers and industrialization in the latter part of the 19th century.¹⁹ By the mid-20th century, Congress began to address threats to environmental quality and public health posed by urban and industrial pollution by enacting statutes encouraging state and local governments to pass regulatory laws to control such problems.²⁰ The first such statute, the Water Pollution Control Act of 1948,²¹ provided financial assistance to states for the creation of state water pollution control programs.²²

Congress increased federal involvement in environmental protection through a series of statutes enacted during the 1950s and 1960s. The Air Pollution Control Act of 1955²³ and the Water Pollution Control Act Amendments of 1956²⁴ authorized additional financial and technical assistance to the states to control pollution.²⁵ The Clean Air Act of 1963,²⁶ the Water Quality Act of 1965,²⁷ the Clean Water Restoration Act of 1966,²⁸ and the Air Quality Act of 1967²⁹ created an expanded federal role in pollution control by authorizing federal research and issuing advisory standards.³⁰ Despite the significant increase in federal legislation relating to pollution concerns, congressional policy continued to view direct regulation of urban and industrial pollution as primarily a state and local responsibility.³¹

19. Coglianesse, *Social Movements*, *supra* note 3, at 90; *see also* ANDREWS, *supra* note 9, at 111.

20. ROBERT V. PERCIVAL ET AL., *ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY* 90–91 (7th ed. 2013).

21. Pub. L. No. 80-845, 62 Stat. 1155 (1948).

22. PERCIVAL ET AL., *supra* note 20 at 90; Zellmer, *supra* note 3, at 2329; ANDREWS, *supra* note 9, at 205.

23. Pub. L. No. 84-159, 69 Stat. 322 (1955).

24. Pub. L. No. 84-660, 70 Stat. 498 (1956).

25. PERCIVAL, ET AL., *supra* note 20, at 90–91.

26. Pub. L. No. 88-206, 77 Stat. 392 (1963).

27. Pub. L. No. 89-234, 79 Stat. 903 (1965).

28. Pub. L. No. 89-753, 80 Stat. 1246 (1966).

29. Pub. L. No. 90-148, 81 Stat. 485 (1967).

30. Coglianesse, *Social Movements*, *supra* note 3, at 96; ANDREWS, *supra* note 9, at 206–09.

31. PERCIVAL ET AL., *supra* note 20, at 90–91.

The federal “environmental law revolution,”³² undertaken by Congress during the 1970s, followed a dramatic increase in public concern for the environment over the preceding decade.³³ Public environmentalism has roots in the conservationist and preservationist movements of the late 19th and early 20th centuries,³⁴ but the modern environmental movement did not truly emerge until the national social unrest of the 1960s.³⁵ Events such as the publication in 1962 of Rachel Carson’s *Silent Spring*,³⁶ which critiqued public health and environmental risks related to pesticide use, as well as the occurrence of major environmental disasters, such as the burning Cuyahoga River in Cleveland, Ohio and the massive Santa Barbara oil spill, energized public alarm over the perceived threats of industrial activities and pollution.³⁷

By the end of the 1960s, pollution concerns were at the forefront of public consciousness and environmental protection had become an important issue in national electoral politics.³⁸ This increase in public concern, combined with a perception that state laws were ineffective in addressing interstate pollution problems, encouraged the sweeping changes in the federal regulatory role that occurred during the subsequent “environmental decade” of the 1970s.³⁹ The conventional wisdom of the time was that Congress “had expansive authority to adopt any laws necessary and proper for addressing the health and welfare problems resulting from uncontrolled interstate pollution.”⁴⁰

32. Aagaard, *supra* note 5, at 1240; *see also* Lynn E. Blais, *The Legitimate Reach of the Environmental Revolution*, 37 HARV. J. L. & PUB. POL’Y 13, 14 (2014) (describing early 1970s federal environmental protection legislation as “mark[ing] a dramatic revolution in the role of the federal government with respect to environmental protection.”); Robert V. Percival, *Regulatory Evolution and the Future of Environmental Policy*, 1997 U. CHI. LEGAL F. 159, 164–65 n.30 (describing the “revolutionary nature” of 1970s environmental protection legislation); Andrews, *supra* note 2, at 226 (noting that “[t]he EPA was created in the context of an extraordinary outburst of mass public pressure for federal action to address the widespread pollution problems that had resulted from the vast post-war growth in industrial production and mass consumption”).

33. Coglianesse, *Social Movements*, *supra* note 3, at 91.

34. *Id.* at 89–90.

35. *Id.* at 91–92.

36. *See generally* RACHEL CARSON, *SILENT SPRING* (1962).

37. Coglianesse, *Social Movements*, *supra* note 3, at 91; RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 58–59 (2004); Denis Binder, *Perspectives on Forty Years of Environmental Law*, 1 GEO. WASH. J. ENERGY & ENVTL. L. 143, 143 (2012).

38. Coglianesse, *Social Movements*, *supra* note 3, at 94–96; Andrews, *supra* note 2, at 226–27.

39. Coglianesse, *Social Movements*, *supra* note 3, at 95–96.

40. Blais, *supra* note 32, at 16 (observing that “in the early 1970s there were perceived to be virtually no . . . Commerce Clause restrictions on the scope of federal power to address

The signing of NEPA on New Year's Day in 1970 mandated that federal governmental agencies begin considering environmental concerns when making decisions about major federal activities.⁴¹ The creation of EPA and the enactment of the Clean Air Act of 1970⁴² followed later that year.⁴³ Over the next 10 years, Congress enacted more than a dozen additional major federal environmental regulatory programs, including the Clean Water Act of 1972,⁴⁴ the Coastal Zone Management Act of 1972,⁴⁵ the Federal Environmental Pesticide Control Act of 1972,⁴⁶ the Endangered Species Act of 1973,⁴⁷ the Safe Drinking Water Act of 1974,⁴⁸ the Resource Conservation and Recovery Act of 1976 (RCRA),⁴⁹ the Toxic Substances Control Act of 1976,⁵⁰ and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).⁵¹

These programs dramatically transformed the federal role in regulating environmental pollution.⁵² Instead of primarily providing assistance to state and local governments, these statutes mandated a federal framework of national minimum pollution control standards, stringent regulation, permitting requirements, and enforcement.⁵³ Congress authorized EPA to oversee the creation, implementation, and enforcement of most of these federal regulatory mandates.⁵⁴ EPA then delegated the authority to administer and enforce certain federal standards to individual states.⁵⁵ Within the federal framework that was created, state and local governments are permitted to establish pollution control standards that are more stringent, but not

problems of national significance relating, however indirectly, to interstate commerce”).

41. *Id.*; PERCIVAL ET AL., *supra* note 20, at 92.

42. Pub. L. No. 91-604, 84 Stat. 1676 (1970) (codified as amended at 42 U.S.C. §§ 7401–7671q).

43. Coglianese, *Social Movements*, *supra*, note 3, at 96.

44. Pub. L. No. 92-500, 86 Stat. 816 (1972) (codified as amended at 33 U.S.C. §§ 1251–1387).

45. Pub. L. No. 92-583, 86 Stat. 1280 (1972) (codified as amended at 16 U.S.C. §§ 1451–64).

46. Pub. L. No. 92-516, 86 Stat. 973 (1972) (codified as amended at 7 U.S.C. §§ 136(a)–(y)).

47. Pub. L. No. 93-205, 87 Stat. 884 (1973) (codified as amended at 16 U.S.C. §§ 1531–44).

48. Pub. L. No. 93-523, 88 Stat. 1660 (1974) (codified as amended at 42 U.S.C. § 300f).

49. Pub. L. No. 94-580, 90 Stat. 2795 (1976) (codified as amended at 42 U.S.C. §§ 6901–6992k).

50. Pub. L. No. 94-469, 90 Stat. 2003 (1976) (codified as amended at 15 U.S.C. §§ 2601–92).

51. Pub. L. No. 96-510, 94 Stat. 2767 (1980) (codified as amended at 42 U.S.C. §§ 9601–75).

52. *See* Coglianese, *Social Movements*, *supra* note 3, at 96–99.

53. *See* Binder, *supra* note 37, at 152.

54. Andrews, *supra* note 2, at 224.

55. *Id.* at 231.

less so, than the federal minimum standards.⁵⁶

The “enormous expansion of federal authority over the environment” carried out by Congress during the 1970s “signified a transformation in American law that could be described as quasi-constitutional in scope.”⁵⁷ Enacting the basic statutory framework for environmental protection also signaled a remarkable swing in the influence in Congress previously enjoyed by politically and economically powerful industry interests opposed to environmental regulation.⁵⁸ The creation of the federal environmental regulatory system in the face of the powerful political and economic barriers arrayed in opposition has been characterized as a “republican moment”—an “outburst of democratic participation and ideological politics . . . created by widespread and then-rising public demand for environmental protection.”⁵⁹ Given the “radically redistributive nature” of this new system of federal environmental protection, Congress required a tremendous political consensus for its enactment.⁶⁰ Indeed, the major environmental legislative programs enacted during this period were passed in Congress with broad bipartisan support reflected by “overwhelming majorities” and “lopsided votes.”⁶¹

The demise of the era of bipartisan support for environmental protection began in earnest in the early 1980s. In 1980, Republican presidential candidate Ronald Reagan’s campaign platform vigorously opposed a strong federal regulatory role in environmental protection.⁶² Following his election, the Reagan administration embarked on a major environmental deregulation strategy, seeking to dismantle existing statutory programs and drastically curtail federal

56. ANDREWS, *supra* note 9, at 227–28; Binder, *supra* note 37, at 177.

57. Coglianese, *Social Movements*, *supra* note 3, at 97–98.

58. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 18–19 (describing the shift in political influence between business and industry interests and public interest groups due to the successes of the modern environmental movement in the late 1960s and early 1970s).

59. Richard J. Lazarus, *A Different Kind of “Republican Moment” in Environmental Law*, 87 MINN. L. REV. 999, 999 (2003) [hereinafter Lazarus] (internal quotation marks and alterations omitted).

60. *Id.* at 1000; Aagaard, *supra* note 5, at 1281.

61. Aagaard, *supra* note 5, at 1240, 1281–82; Lazarus, *supra* note 59, at 1001–03; Andrews, *supra* note 2, at 224; see also KLYZA & SOUSA, *supra* note 13, at 19 (describing period of “remarkable bipartisanship on the environment” during the late 1960s and the 1970s).

62. Lazarus, *supra* note 59, at 1026; Daniel A. Farber, *The Thirty Years War over Federal Regulation*, 92 TEX. L. REV. 413, 419 (2013) (reviewing THOMAS O. MCGARITY, *FREEDOM TO HARM: THE LASTING LEGACY OF THE LAISSEZ FAIRE REVIVAL* (2013)) [hereinafter Farber, *Thirty Years War*].

monitoring and enforcement capabilities.⁶³ However, through a combination of political scandal, mismanagement by Reagan appointees at EPA, and significant public backlash against Reagan's environmental policies, these efforts to either unmake or sharply constrain the environmental regulatory system created during the 1970s were an abject failure.⁶⁴

Congress not only rejected the Reagan administration's environmental deregulation initiatives, but further expanded and strengthened the federal environmental regulatory system during this period.⁶⁵ Over the course of the following decade, Congress added several new major programs including the Emergency Planning and Community Right-To-Know Act of 1986,⁶⁶ the Oil Pollution Act of 1990,⁶⁷ and the Pollution Prevention Act of 1990.⁶⁸ Further, Congress enacted comprehensive and progressively more prescriptive amendments to RCRA in 1984,⁶⁹ to the Safe Drinking Water Act⁷⁰ and to CERCLA in 1986,⁷¹ to the Clean Water Act in 1987,⁷² and to

63. Lazarus, *supra* note 59, at 1026; Andrews, *supra* note 2, at 235–36; Case, *Regulatory Reform Agenda*, *supra* note 8, at 21; *see also* Joel A. Mintz, *Assessing National Environmental Enforcement: Some Lessons From the United States Experience*, 26 GEO. INT'L ENVTL. L. REV. 1, 6 (2013) (discussing early Reagan Administration efforts “to undermine—if not abolish entirely—the [EPA’s] enforcement program”).

64. *See* Case, *Regulatory Reform Agenda*, *supra* note 8, at 21–23; Andrews, *supra* note 2, at 236–37; *see also* Farber, *Thirty Years War*, *supra* note 62, at 419 (noting that Reagan “was able to accomplish little in terms of regulatory reform in Congress”).

65. *See* Case, *Regulatory Reform Agenda*, *supra* note 8, at 22–23 (pointing to Congress's passage of numerous command and control statutes between 1984 and 1994 as evidence that Congress rejected environmental deregulation); Lazarus, *supra* note 59, at 1028 (finding that federal environmental regulation was “reinvigorated” in the 1990s); Rena I. Steinzor, *Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control*, 22 HARV. ENVTL. L. REV. 103, 107 (1998) [hereinafter Steinzor, *Reinventing Regulation*] (“Congress's determination to establish a network of detailed regulatory requirements was motivated by a popular backlash against the Reagan administration's environmental policies, in particular its stewardship of the EPA.”); James Florio, *Congress as Reluctant Regulator: Hazardous Waste Policy in the 1980s*, 3 YALE J. ON REG. 351, 351–53 (1986) (finding that Congress was provoked into assuming a regulatory role by the Reagan administration's deregulation agenda).

66. Pub. L. No. 99-499, 100 Stat. 1613 (1986) (codified at 42 U.S.C. §§ 11001–50).

67. Pub. L. No. 101-380, 104 Stat. 486 (1990) (codified as amended at 33 U.S.C. §§ 2701–60).

68. Pub. L. No. 101-508, 104 Stat. 1388 (1990) (codified at 42 U.S.C. §§ 13101–09).

69. Hazardous and Solid Waste Amendments of 1984, Pub. L. No. 98-616, 98 Stat. 3221 (codified at 42 U.S.C. § 6901).

70. Safe Drinking Water Amendments of 1986, Pub. L. No. 99-339, 100 Stat. 642 (codified at 42 U.S.C. § 201).

71. Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (codified at 42 U.S.C. § 9601).

72. Water Quality Act of 1987, Pub. L. No. 100-4, 100 Stat. 7 (codified at 33 U.S.C. § 1251).

the Clean Air Act in 1990.⁷³ Nonetheless, the 1980s witnessed a serious and growing fracturing of 1970s-era bipartisan support for a strong federal role in environmental protection.⁷⁴ The demise of bipartisan support was triggered in large part by the fallout from the Reagan administration's failed deregulatory initiatives and anti-environmental regulatory policies.⁷⁵

Federal environmental regulation became even more politically divisive in Congress during the 1990s. Conservative Republican candidates in the 1994 congressional elections made reducing the scope and intensity of federal environmental regulations a cornerstone of their campaigns through their so-called "Contract with America."⁷⁶ After Republicans won a new congressional majority in the 1994 elections, they introduced a deluge of legislative proposals to weaken or eliminate major federal environmental programs and radically reduce environmental program and enforcement budgets.⁷⁷ However, similarly to the party's efforts in the early 1980s, this effort to dismantle the federal environmental regulatory system also failed. Due in large part to widespread public criticism and opposition,⁷⁸ the major environmental statutes survived this assault intact.⁷⁹ Nonetheless, "the excessively confrontational nature of the failed assault on the environmental regulatory system carried out during the 104th Congress" intensely increased the partisan divide over these issues.⁸⁰

73. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (codified at 42 U.S.C. § 7407); see Steinzor, *Reinventing Regulation*, *supra* note 65, at 107.

74. See ANDREWS, *supra* note 9, at 259 (noting that the events surrounding the Regan administration's early approach to environmental regulation triggered "a more bitter and far more partisan period of distrust and ideological trench warfare over environmental protection policy"); Andrews, *supra* note 2, at 224 (during the 1980s "among elected politicians and interest groups [environmental protection] became a surrogate for an increasing ideological and partisan conflict over the role of government regulation in achieving it").

75. *Id.*

76. Andrews, *supra* note 2, at 244–45; Lazarus, *supra* note 59, at 1027; Case, *Regulatory Reform Agenda*, *supra* note 8, at 24.

77. Case, *Regulatory Reform Agenda*, *supra* note 8, at 23–25; Zygmunt J.B. Plater, *Environmental Law as a Mirror of the Future: Civic Values Confronting Market Force-Dynamics in a Time of Counter-Revolution*, 23 B.C. ENVTL. AFF. L. REV. 733, 734–35 (1996).

78. Case, *Regulatory Reform Agenda*, *supra* note 8, at 25; see also Michael E. Kraft, *Environmental Policy in Congress: Revolution, Reform, or Gridlock?*, in ENVIRONMENTAL POLICY IN THE 1990S 119, 137 (Norman J. Vig & Michael E. Kraft eds., 3d ed., 1997) (describing intense negative public reaction to Republican environmental agenda in the 104th Congress).

79. KLYZA & SOUSA, *supra* note 13, at 51.

80. Case, *Regulatory Reform Agenda*, *supra* note 8, at 25–26; see also KLYZA & SOUSA, *supra* note 13, at 21 (describing "bitter partisanship of the 1990s" regarding environmental policy).

Nearly three decades after the last significant environmental legislation was passed by Congress, federal environmental regulation continues to be an intensely divisive issue.⁸¹ Since the 1970s, the partisan divide between the two major political parties on environmental issues in Congress has grown exponentially more bitter and ideological.⁸² In the current highly politicized climate, environmental issues are little more than “a proxy for an ideological battle over the appropriate extent of federal regulatory authority.”⁸³ Similarly, EPA has become “a political lightning rod” and is often used as “a symbol of excessive and heavy handed regulation.”⁸⁴

Since the passage of the 1990 Clean Air Act Amendments, Congress has been unable to agree on revisions or amendments to major environmental statutes, or to enact new statutes to address emerging environmental issues such as climate change.⁸⁵ As Sandra Zellmer recently demonstrated, during the 1970s and 1980s, Congress routinely amended the major environmental statutes in response to judicial decisions from the Supreme Court and the federal courts of appeal “to insure that the agencies and the courts were staying true to [Congress’ legislative] purposes and implementation strategies.”⁸⁶ However, post-1990, Congress has wholly abdicated even this most basic responsibility of environmental policymaking.⁸⁷

Since 1990, a “legislative stalemate” has prevailed, and Congress

81. Aagaard, *supra* note 5, at 1281–82.

82. Lazarus, *supra* note 59, at 1019; *see* Andrews, *supra* note 2, at 225 (noting environmental protection has been “consigned to the status of a political football of partisan and ideological politics”); Aagaard, *supra* note 5, at 1282 (noting that “Democrats and Republicans have sharply diverged in their support for environmental protection”); Zellmer, *supra* note 3, at 2325 (noting the “bitterly partisan nature of environmental issues in Congress today”).

83. Aagaard, *supra* note 5, at 1282; *see also* Adler, *supra* note 6, at 256 (noting that “opposition to environmental regulation has become a litmus test in some quarters” and that “reflexive opposition to environmental policy proposals” often occurs); Andrews, *supra* note 2, at 238–39 (describing the “deep ideological fault line between support for environmental protection and hostility to the federal government” which “continues to stalemate environmental policy . . . more than a quarter century later”).

84. Aagaard, *supra* note 5, at 1275.

85. KLYZA & SOUSA, *supra* note 13, at 41, 86. As Professors Klyza and Sousa note, “for decades, Congress has been in gridlock on environmental policymaking, achieving few new laws or significant revisions of old laws despite a raft of emerging environmental problems and deep, legitimate concerns about the efficiency and effectiveness of the old statutes.” *Id.* at xvii.

86. Zellmer, *supra* note 3, at 2326; *see also id.* at 2328–40 (surveying amendments to major statutes in response to court decisions during the period from the late 1970s through the decade of the 1980s).

87. *See id.* at 2340–49 (“Since 1990, the federal agencies and the Supreme Court have eclipsed Congress in terms of environmental policymaking.”).

has been unable “to respond to demands from the left, the right, or the center for changes to the laws governing pollution, conservation, and natural resource policy.”⁸⁸ Commentators characterize the current climate in Congress on environmental issues as “gridlocked,”⁸⁹ “deadlock[ed],”⁹⁰ “dysfunction[al],”⁹¹ “broken,”⁹² the subject of “considerable, self-imposed inertia,”⁹³ and “highly inhospitable to the enactment of major environmental legislation.”⁹⁴ There are no signs from Congress that indicate the current gridlock over environmental policy will end within the foreseeable future. In fact, the odds of enactment of any significant federal environmental legislation only seem to diminish with the installation of each new Congress.⁹⁵

Notwithstanding the now long-running era of extreme partisanship and politicization of environmental issues in Congress, the federal environmental regulatory system it constructed during earlier decades remains in place.⁹⁶ Since the early 1970s, this system is credited with substantial, albeit insufficient, success in reducing pollution and improving environmental quality in many ways.⁹⁷

88. KLYZA & SOUSA, *supra* note 13, at 10; *see also* Michael Ray Harris, *Environmental Deliberative Democracy and the Search for Administrative Legitimacy: A Legal Positivism Approach*, 44 U. MICH. J.L. REFORM 343, 363 (2011) [hereinafter Harris] (“Today, most scholars accept that our nation’s environmental story has become a story of Congressional inaction . . .”).

89. Michael B. Gerrard & Shelley Welton, *US Federal Climate Change in Obama’s Second Term*, 3 TRANSNAT’L ENVTL. L. 111, 112 (2014); *see also* KLYZA & SOUSA, *supra* note 13, at 31 (noting that “[l]egislative gridlock is a feature of modern environmental policymaking”); Zellmer, *supra* note 3, at 2325, 2372, 2379; Andrews, *supra* note 2, at 225, 255; Sam Kalen, *Dormancy Versus Innovation: A Next Generation Dormant Commerce Clause*, 65 OKLA. L. REV. 381, 382 (2013) (noting that “[t]oday’s Congress” is dominated by “partisan gridlock” that is “unlikely to change anytime soon”).

90. Daniel A. Farber, *Climate Policy and the United States System of Divided Powers: Dealing with Carbon Leakage and Regulatory Leakage*, 3 TRANSNAT’L ENVTL. L. 31, 54 (2014).

91. Gerrard & Welton, *supra* note 89, at 112.

92. Zellmer, *supra* note 3, at 2366, 2371.

93. Benjamin Ewing & Douglas A. Kysar, *Prods and Pleas: Limited Government in an Era of Unlimited Harm*, 121 YALE L.J. 350, 354 (2011).

94. Aagaard, *supra* note 5, at 1282.

95. *See also id.* (observing that the impasse in Congress “shows no signs of abating; if anything, the prospects for significant new federal environmental legislation seem bleaker than ever”).

96. Douglas A. Kysar, *Law, Environment, and Vision*, 97 NW. U. L. REV. 675, 675 (2003); Adler, *supra* note 6, at 253–54; Zellmer, *supra* note 3, at 2324.

97. *See* ANDREWS, *supra* note 9, at 252–53 (describing the success of the national regulatory framework in reducing air, water, automobile and other emissions, but noting the limitations in achieving long-term solutions to pollution); Coglianese, *Social Movements*, *supra* note 3, at 98–99 (attributing significant drops of the levels of carbon monoxide, sulfur dioxide,

Mandatory regulation is said to have “picked the low-hanging fruit” of relatively discrete and easily targeted sources of harm, such as land-based waste disposal and large industrial “point sources” of pollution.⁹⁸ “Systemic or lasting solutions” to the pollution control problems addressed by the federal regulatory system remain unrealized.⁹⁹ Furthermore, many critical environmental protection problems—such as non-point source water and air pollution, emissions affecting climate change, wasteful consumption of natural resources and energy supplies, and risks posed by the manufacture and use of toxic chemicals—continue to flourish and are inadequately addressed by the current system.¹⁰⁰ One of the strongest criticisms of the existing environmental regulatory system is its under-inclusiveness in terms of both the types and sources of harms it regulates.¹⁰¹

III. SEARCHING FOR THE ENVIRONMENTAL REGULATORY SYSTEM’S “NEXT GENERATION”

The legal environmental protection framework built by Congress during the environmental decade of the 1970s is often pejoratively referred to as “command-and-control.”¹⁰² Despite its ubiquity in

and lead in the air, as well as water quality improvements, to the legislation and regulations imposed since the 1970s, but noting that there are still several environmental problems remaining); see also Michael E. Kraft & Norman J. Vig, *Environmental Policy from the 1970s to the 1990s: An Overview*, in ENVIRONMENTAL POLICY IN THE 1990s 1, 23 (Norman J. Vig & Michael E. Kraft eds., 3d ed., 1997) (“As the data reviewed . . . suggest, the nation made impressive gains between 1970 and 1996 in controlling many conventional pollutants . . .”).

98. J.B. Ruhl, *Regulation by Adaptive Management - Is it Possible?*, 7 MINN. J.L. SCI. & TECH 21, 21 (2005); Michael P. Vandenbergh, *From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law*, 57 VAND. L. REV. 515, 526 (2004); Cary Coglianese & Jennifer Nash, *Environmental Management Systems and the New Policy Agenda*, in REGULATING FROM THE INSIDE: CAN ENVIRONMENTAL MANAGEMENT SYSTEMS ACHIEVE POLICY GOALS 1, 1 (Cary Coglianese & Jennifer Nash eds., 2001) [hereinafter Coglianese & Nash, *Environmental Management Systems*].

99. ANDREWS, *supra* note 9, at 252.

100. Andrews, *supra* note 2, at 254; Ruhl, *supra* note 98, at 22; Kraft & Vig, *supra* note 97, at 23; J. CLARENCE DAVIES & JANICE MAZUREK, POLLUTION CONTROL IN THE UNITED STATES: EVALUATING THE SYSTEM 270–76 (1998).

101. Case, *Regulatory Reform Agenda*, *supra* note 8, at 28; Jesse Ratcliffe, *Reinventing the Risk Bubble: Utilizing a System of Intra-Firm Risk Trading for Environmental Protection*, 92 CAL. L. REV. 1779, 1784 (2004).

102. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 26–27 (explaining that the federal regulatory “command-and-control” system is a “top-down” form of regulation, because the federal government “commands” compliance with national, uniform standards); Steinzor, *Reinventing Regulation*, *supra* note 65, at 104 (identifying the command and control system as the basis for most rule-making that imposes complicated requirements in limits on industries);

academic literature, the phrase “command-and-control” has eluded precise definition and has evolved into shorthand for broad-based criticism of mandatory regulatory approaches to control corporate environmental behavior.¹⁰³ Typically, “command-and-control” regulation in the environmental context is a top-down, hierarchical structure within which the government mandates the means and methods of pollution control, usually through either uniform technology-based controls or performance standards enforced through a permitting system.¹⁰⁴ More simply, the existing federal environmental regulatory framework creates “a model of direct regulatory proscription of unwanted individual and corporate behaviors through a series of regulatory commands of the ‘thou shalt not’ variety.”¹⁰⁵ These “commandments” are “backed by stiff administrative, civil, and criminal sanctions for non-compliance, enforceable by administrative agencies, federal and state prosecutors, and sometimes ordinary aggrieved citizens through the mechanism of the citizen suit.”¹⁰⁶

This “first generation”¹⁰⁷ of the federal environmental regulatory

ANDREWS, *supra* note 9, at 270 (describing federal legislation as “command-and-control,” because EPA was directed to address environmental problems by setting standards, issuing permits, imposing fines, etc.).

103. See David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 76 U. COLO. L. REV. 379, 380 n.2 (2005) [hereinafter Case, *Corporate Environmental Reporting*] (“The phrase ‘command-and-control’ has taken on a life of its own in the environmental literature. Despite its widespread use, there is significant disagreement regarding a precise definition of the phrase”); see also Jodi L. Short, *The Paranoid Style in Regulatory Reform*, 63 HASTINGS L.J. 633, 658–59 (2012) (“the term [command and control] is deployed routinely in articles that criticize regulation” and “although [it] has become widely used short-hand in contemporary legal circles, it is rarely defined and its meanings and functions have become either submerged or taken for granted”); Kathryn Harrison, *Talking with the Donkey: Cooperative Approaches to Environmental Protection*, 2 J. INDUS. ECOLOGY 51, 53 (1999) [hereinafter Harrison, *Talking with the Donkey*] (noting that “command and control” is commonly overused as a “pejorative catchall for any and all criticisms of environmental regulation”).

104. Case, *Corporate Environmental Reporting*, *supra* note 103, at 380.

105. Bradley C. Karkkainen, *Framing Rules: Breaking the Information Bottleneck*, 17 N.Y.U. ENVTL. L.J. 75, 75 (2008) [hereinafter Karkkainen, *Framing Rules*].

106. *Id.* at 76; see also Steinzor, *Reinventing Regulation*, *supra* note 65, at 104 (“Command and control rules impose detailed, legally enforceable limits, conditions, and affirmative requirements on industrial operations, generally controlling sources that generate pollution on an individual basis.”); ANDREWS, *supra* note 9, at 270 (noting that most federal environmental “statutory authorities dictated ‘command-and-control’ solutions: they directed EPA to regulate environmental problems, by setting national standards, issuing permits, inspecting and enforcing compliance, ordering corrective action, and fining violators”).

107. Karkkainen, *Framing Rules*, *supra* note 105, at 75; David J. Sousa & Christopher McGrory Klyza, *New Directions in Environmental Policy Making: An Emerging Collaborative Regime or Reinventing Interest Group Liberalism?*, 47 NAT. RESOURCES J. 377, 378 (2007).

system has precipitated ubiquitous, and often intense, criticism over the past several decades.¹⁰⁸ Most negative critiques levied at the regulatory system created by the 1970s environmental statutes claim that the conventional approach is inefficient and ineffective.¹⁰⁹ Traditional approaches to environmental regulation are stridently criticized on economic efficiency grounds.¹¹⁰ The costs for the regulated community to comply with mandatory regulations are staggering. For example, annual expenditures in excess of \$200 billion are necessary to comply with point source pollution control regulations in the United States.¹¹¹

Critics have long charged that conventional regulation engenders considerable inefficiency and waste, and that similar or even greater environmental protection results could be achieved by more flexible, alternative regulatory approaches at significantly less cost.¹¹² Historically insufficient budget allocations for enforcement efforts at both the federal and state levels only exacerbate the conventional system's problems.¹¹³ Moreover, mandatory regulations are exceedingly difficult and expensive for governments to implement, discouraging the enactment of new statutory programs and the

108. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 26–32 (surveying various criticisms of “command and control” approaches to environmental protection regulation); Steinzor, *Reinventing Regulation*, *supra* note 65, at 113–18.

109. Sousa & Klyza, *supra* note 107, at 378.

110. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 28 (noting that some critics argue command-and-control mechanisms are economically inefficient, as goals are established without fully weighing the costs created against the benefits conferred).

111. Paddock, *supra* note 13, at 10610 (citing DANIEL J. FIORINO, *THE NEW ENVIRONMENTAL REGULATION 1* (2006)).

112. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 28–29 (explaining the economic inefficiency criticisms of command and control and the reasons why “market-based” incentives would be more economically efficient); Ruhl, *supra* note 98, at 21 n.1 (describing OIRA’s calculation of the social benefits of federal rules imposed from 1994–2004 as being greater than the compliance costs, but conceding that these may still not have been the most efficient outcomes); ANDREWS, *supra* note 9, at 270 (noting that because of the additional burdens of “command-and-control” regulation on polluters with alternative options to reduce pollution and because of the inefficiency of regulating some sources, other approaches, such as “market-based incentives” and emissions caps could be better alternatives).

113. See David W. Case, *Changing Corporate Behavior Through Environmental Management Systems*, 31 WM. & MARY ENVTL. L. & POL’Y REV. 75, 81–82 (2006) [hereinafter Case, *Changing Corporate Behavior*] (explaining that because environmental enforcement authorities are historically underfunded, existing environmental laws are under-enforced, and that therefore the potential benefits of existing laws do not always obtain); see also Mintz, *supra* note 63, at 7–10 (surveying the entire history of EPA fiscal and budgetary constraints due to inadequate funding from Congress); Sarah L. Stafford, *Private Policing of Environmental Performance: Does it Further Public Goals?*, 39 B.C. ENVTL. AFF. L. REV. 73, 74 (2012) (discussing declining EPA enforcement budgets and staffing).

expansion of existing regulatory regimes.¹¹⁴

Critics further argue that command-and-control regulation is inflexible because it inefficiently imposes uniform standards that ignore critical distinctions among pollution sources and creates disincentives to technological innovation in addressing pollution control problems.¹¹⁵ Perhaps the most damning criticism has been that many serious environmental problems “fall largely outside of the current regulatory system or are not particularly amenable to traditional regulatory control.”¹¹⁶ This includes “old environmental problems” such as non-point source water pollution and more recently recognized problems such as greenhouse-gas emissions and other “highly dispersed and less visible sources of pollution.”¹¹⁷

Nearly from the moment that Congress enacted the first statutes in the 1970s, such criticisms of traditional environmental regulation have spawned a host of calls for system reform.¹¹⁸ Particularly since the mid-1990s, a multitude of reform-minded commentators have argued that command-and-control approaches are outdated and obsolete.¹¹⁹ To more effectively address old challenges and to seriously tackle new problems, reformers argue that the “first generation” of environmental regulatory approaches should give way

114. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 28–30 (explaining that command and control “regulation requires regulators to make business and operating decisions” for the regulated firms, to promulgate a “staggering” number of “statutes, regulations, and rules,” and to acquire expertise in “science, engineering, and economics” in order to properly apply these environmental laws).

115. *Id.* at 29–30; Steinzor, *Reinventing Regulation*, *supra* note 65, at 118; Karkkainen, *Framing Rules*, *supra* note 105, at 76; see also Timothy F. Malloy, *The Social Construction of Regulation: Lessons From the War Against Command and Control*, 58 *BUFF. L. REV.* 267, 269 (2010) (critiquing the “homogeneity proposition [that] posits that command and control regulation applies a one-size-fits-all approach that fails to distinguish among firms in terms of their economic, technological, or organizational capacities to reduce emissions”).

116. Case, *Changing Corporate Behavior*, *supra* note 113, at 76; see also Karkkainen, *Framing Rules*, *supra* note 105, at 79 (noting that a central problem in environmental regulation “is to be found in the long list of serious environmental problems that continue to go unaddressed by our current regulatory regime”); Carol A. Casazza Herman et al., *The Breaking the Logjam Project*, 17 *N.Y.U. ENVTL. L.J.* 1, 3 (2008) (noting that “almost 40 years after the passage of our basic federal governing structure, we have learned more about some old environmental problems and the limits of the regulatory tools we have used to address them”).

117. Casazza Herman et al., *supra* note 116 at 3–5; KLYZA & SOUSA, *supra* note 13, at 28.

118. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 32; Karkkainen, *Framing Rules*, *supra* note 105, at 77 (“Almost from the outset of the era of prescriptive environmental regulation, the policy arena has been awash in proposals for regulatory reform, reinvention, and reorientation.”).

119. See, e.g., Richard B. Stewart, *A New Generation of Environmental Regulation*, 29 *CAP. U. L. REV.* 21, 27–38 (2001) [hereinafter Stewart, *New Generation*] (arguing that the existing federal environmental regulatory system is unable to sustain additional progress).

to “next” or “second generation” alternatives.¹²⁰ Thus, substantial effort has been undertaken over the past two decades to study and evaluate alternative policy tools that might be used to supplement or, in appropriate situations, replace conventional regulatory approaches.¹²¹ The fundamental goal of such efforts is to create a more flexible and effective framework that will increase levels of environmental protection while simultaneously lowering costs to both regulators and the regulated community.”¹²²

During the decades of the 1970s and 1980s, Presidents Nixon, Ford, Carter, and Reagan pursued various environmental regulatory reform initiatives, but these efforts were largely administrative, rather than substantive, in nature.¹²³ That is, these initiatives sought to impose procedures to increase executive control over EPA proposals for environmental regulations, rather than to achieve substantive reform of the governing statutes themselves.¹²⁴ Advocacy for substantive reform of the command-and-control statutes emerged during the 1980s and grew more strident into the early 1990s.¹²⁵ Shortly following President Clinton’s election in 1992, these reform calls began to gain significant traction.¹²⁶ In 1993, President Clinton announced that Vice President Gore would oversee the National Performance Review, a comprehensive evaluation of all federal government programs that eventually included EPA and a call for “reinvention” of the “command-and-control bureaucracy” of

120. See, e.g., Debra S. Knopman, *Easier to be Green: The Second Generation of Environmental Action*, in BUILDING THE BRIDGE: 10 BIG IDEAS TO TRANSFORM AMERICA 163, 164 (Will Marshall ed., 1997) (discussing the need for a “second generation” environmental strategy). See generally THINKING ECOLOGICALLY: THE NEXT GENERATION OF ENVIRONMENTAL POLICY (Marian R. Chertow & Daniel C. Esty eds., 1997) [hereinafter Chertow & Esty] (discussing ideas to shift federal environmental regulatory policy to “next generation” models); Michael P. Vandenberg, *An Alternative to Ready, Fire, Aim: A New Framework to Link Environmental Targets in Environmental Law*, 85 KY. L.J. 803 (1997) (discussing a “utopian” perspective for radical environmental regulatory reform).

121. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 40–46, 59–87 (surveying various efforts to study and evaluate alternative policy tools); KLYZA & SOUSA, *supra* note 13, at 179–225 (same).

122. Case, *Corporate Environmental Reporting*, *supra* note 103, at 381; see also Sousa & Klyza, *supra* note 107, at 378–79 (“The ‘next generation’ of environmental policy making seeks to give greater priority to economic efficiency, pragmatically balance interests, and allow for greater collaboration between government and regulated interests.”).

123. ANDREWS, *supra* note 9, at 251; see also Case, *Regulatory Reform Agenda*, *supra* note 8, at 32; Short, *supra* note 103, at 639–40.

124. Case, *Regulatory Reform Agenda*, *supra* note 8, at 32; ANDREWS, *supra* note 9, at 251; KLYZA & SOUSA, *supra* note 13, at 51.

125. Case, *Regulatory Reform Agenda*, *supra* note 8, at 33.

126. *Id.* at 33–34; Steinzor, *Reinventing Regulation*, *supra* note 65, at 109.

traditional environmental regulation.¹²⁷

In 1995, the Clinton administration released its *Reinventing Environmental Regulation* report, which included numerous proposals to reform the federal environmental regulatory system and respond to negative critiques of conventional approaches.¹²⁸ These initiatives promoted experimentation with flexible, collaborative approaches to environmental policymaking that might eventually lead to a fundamental transformation of the command-and-control regulatory system.¹²⁹ Many perceived these initiatives as a defensive response by a Democratic White House to the recent and then ongoing Republican-led attacks, in the 104th Congress, on the federal environmental regulatory system.¹³⁰ Commentators have observed that the Clinton administration's reinvention initiatives were "alternatives to more radical [environmental regulatory reform] efforts suggested by congressional Republicans."¹³¹ At least in part, therefore, the Clinton White House embraced "next generation" environmental regulatory reform as a political tool and as a means of fending off relentless attacks on the federal environmental framework from an aggressive Congress.¹³²

Significantly, the hostile partisanship of the mid-1990s congressional battles over the fate of the "first generation" environmental regulatory system inspired a plethora of prominent, contemporaneous policy reports advocating a move to "next generation" regulatory alternatives.¹³³ The National Academy of Public Administration,¹³⁴ the President's Council on Sustainable

127. Case, *Regulatory Reform Agenda*, *supra* note 8, at 34; Steinzor, *Reinventing Regulation*, *supra* note 65, at 109; Short, *supra* note 103, at 640.

128. Case, *Regulatory Reform Agenda*, *supra* note 8, at 34; Sousa & Klyza, *supra* note 107, at 401–02; see Bill Clinton & Al Gore, *Reinventing Environmental Regulation*, NAT'L P'SHIP FOR REINVENTING GOV'T at 8–16, <http://govinfo.library.unt.edu/npr/library/rsreport/251a.html> (last visited Nov. 4, 2014) (listing 25 potential alternatives to command-and-control environmental regulation).

129. Case, *Regulatory Reform Agenda*, *supra* note 8, at 39–40; Sousa & Klyza, *supra* note 107, at 401–02.

130. Case, *Regulatory Reform Agenda*, *supra* note 8, at 34 n.205.

131. Rena I. Steinzor, *Regulatory Reinvention and Project XL: Does the Emperor Have Any New Clothes?*, 26 ENVTL. L. REP. 10527, 10527 (1996).

132. KLYZA & SOUSA, *supra* note 13, at 180.

133. Case, *Regulatory Reform Agenda*, *supra* note 8, at 34–35.

134. NAT'L ACAD. OF PUB. ADMIN., SETTING PRIORITIES, GETTING RESULTS: A NEW DIRECTION FOR EPA (1995); NATIONAL ACADEMY OF PUBLIC ADMINISTRATION, RESOLVING THE PARADOX OF ENVIRONMENTAL PROTECTION: AN AGENDA FOR CONGRESS, EPA, & THE STATES: A REPORT FOR CONGRESS (1997) [hereinafter NAPA, RESOLVING THE PARADOX].

Development,¹³⁵ the Aspen Institute,¹³⁶ the National Environmental Policy Institute,¹³⁷ Yale University's Next Generation Project,¹³⁸ and the Enterprise for the Environment issued particularly notable reports.¹³⁹ Numerous environmental law and policy scholars also joined in advocating for regulatory reform.¹⁴⁰ In 1996, Richard Stewart declared that the command-and-control regulatory system was a "failing paradigm."¹⁴¹ In their influential study of federal environmental regulation the following year, J. Clarence Davies and Jan Mazurek similarly noted that, "[f]or all its accomplishments, . . . the pollution control regulatory system is deeply and fundamentally flawed."¹⁴² By the end of the decade, the Congressional Research Service prepared a report for Congress summarizing existing proposals of the many extant "blue-ribbon panels" promoting alternatives to "command-and-control" environmental regulatory approaches.¹⁴³

In this regard, "next generation" reform advocates during the mid-to-late-1990s actively solicited Congressional support for, and active participation in, such reform efforts.¹⁴⁴ For example, the Enterprise for the Environment project, chaired by former Nixon and

135. THE PRESIDENT'S COUNCIL ON SUSTAINABLE DEV., *SUSTAINABLE AMERICA: A NEW CONSENSUS FOR PROSPERITY, OPPORTUNITY, AND A HEALTHY ENVIRONMENT FOR THE FUTURE* (1996).

136. ASPEN INST., *SERIES ON THE ENVIRONMENT IN THE 21ST CENTURY, THE ALTERNATIVE PATH: A CLEANER, CHEAPER WAY TO PROTECT AND ENHANCE THE ENVIRONMENT* (1996).

137. NAT'L ENVTL. POLICY INST., *REINVENTING THE VEHICLE FOR ENVIRONMENTAL MANAGEMENT* (1995); NATIONAL ENVIRONMENTAL POLICY INSTITUTE, *INTEGRATING ENVIRONMENTAL POLICY: A BLUEPRINT FOR 21ST CENTURY ENVIRONMENTALISM* (1996).

138. See Chertow & Esty, *supra* note 120, at i (noting the influence of "The Next Generation Project sponsored by the Yale Center for Environmental Law and Policy").

139. ENTER. FOR THE ENV'T., *THE ENVIRONMENTAL PROTECTION SYSTEM IN TRANSITION: TOWARD A MORE DESIRABLE FUTURE* (1997).

140. See, e.g., Richard B. Stewart, *United States Environmental Regulation: A Failing Paradigm*, 15 J.L. & COM. 585, 585-91 (1996) (criticizing the "[u]niform 'one size fits all'" environmental policies currently in place as "destined to fail unless basic changes are made."); J. CLARENCE DAVIES & JANICE MAZUREK, *REGULATING POLLUTION: DOES THE U.S. SYSTEM WORK?* 2 (1997) ("For all its accomplishments, we conclude that the pollution control regulatory system is deeply and fundamentally flawed.").

141. Stewart, *supra* note 140, at 585-91.

142. DAVIES & MAZUREK, *supra* note 140, at 2.

143. JOHN E. BLODGETT, CONGRESSIONAL RESEARCH SERVICE REPORT FOR CONGRESS RL30760: ENVIRONMENTAL PROTECTION: NEW APPROACHES (2000).

144. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 59 (mentioning calls for Congress to more actively participate in reinvention experimentation).

Reagan EPA administrator William Ruckelshaus,¹⁴⁵ urged that, “[w]ithout giving up its essential oversight responsibilities, Congress should begin to see itself as a partner in helping to improve the [environmental regulatory] system and creating incentives for innovation and change.”¹⁴⁶ Similarly, the National Academy of Public Administration’s report called upon Congress to signal its support for the learning curve of experimentation with alternative regulatory approaches at EPA by “authorizing reinvention experiments . . . and appropriating funds to the efforts.”¹⁴⁷ Despite such entreaties, however, Congress did not perceive itself as a partner in the 1990s environmental regulatory reform efforts, and, with one very minor exception, failed to enact any legislation to support the Clinton era reinvention initiatives.¹⁴⁸

In the wake of George W. Bush’s victory in the 2000 presidential election, national efforts to pursue “next generation” alternatives to traditional environmental regulation receded significantly.¹⁴⁹ Environmental issues in general were a low priority during both terms of the George W. Bush administration.¹⁵⁰ From the standpoint of regulatory innovation, EPA under the Bush administration focused primarily on promoting voluntary environmental regulatory initiatives that encouraged firms to improve corporate environmental performance beyond levels required by mandatory regulatory requirements.¹⁵¹ However, while the reform-minded push for more efficient and effective environmental regulatory approaches did not

145. ENTER. FOR THE ENV’T, *supra* note 139, at ix; Andrews, *supra* note 2, at 230, 237.

146. ENTER. FOR THE ENV’T, *supra* note 139, at viii; *see also id.* at 48 (further describing the “critical role” of Congress “in an improved environmental protection system,” and emphasizing that “Congress should see itself as a partner with the executive branch in the [environmental protection system] reassessment process, and it should provide agencies with the resources they need to carry out their congressionally mandated missions”).

147. NAPA, RESOLVING THE PARADOX, *supra* note 134, at 37.

148. KLYZA & SOUSA, *supra* note 13, at 53; *see also id.* at 328 n.28 (noting the minor exception was legislation enabling EPA’s National Environmental Performance Partnership System with the states).

149. *See id.* at 286, 307–08 (noting partisanship of Bush years impeded efforts to “find middle ground”).

150. Sousa & Klyza, *supra* note 107, at 401; *see also* Andrews, *supra* note 2, at 247–51 (describing how the Bush administration’s EPA record was a low point in agency history).

151. *See* Darnall & Sides, *supra* note 13, at 96–97 (explaining what Voluntary Environmental Programs are); KLYZA & SOUSA, *supra* note 13, at 309 (discussing Performance Track program as “the most prominent” volunteer program of the Bush administration); *see also* Cary Coglianese & Jennifer Nash, *Performance Track’s Postmortem: Lessons from the Rise and Fall of EPA’s “Flagship” Voluntary Program*, 38 HARV. ENVTL. L. REV. 1, 3 (2014) [hereinafter Coglianese & Nash, *Performance Track’s Postmortem*] (noting that EPA had created more than sixty different voluntary environmental programs by the mid-2000s).

disappear altogether, such efforts received extremely minimal priority during the Bush administration's later years.¹⁵² Most certainly, the desires of "next generation" reform advocates for implementation of meaningful alternative environmental regulatory approaches were substantially marginalized during the George W. Bush years.¹⁵³

In 2007, as the end of the Bush era drew near, hope blossomed that the next presidential administration and the next Congress might prove more receptive to implementation of "next generation" environmental regulatory strategies. The New York University School of Law and New York Law School jointly hosted a seminar in the fall of 2007, and a subsequent two-day conference in March 2008, at which "over forty environmental law experts from around the country and across the ideological spectrum [were enlisted] to propose statutory and institutional changes" for the national environmental protection system.¹⁵⁴ This ambitious project—titled *Breaking the Logjam: Environmental Reform for the New Congress and Administration*—was founded on the proposition that "political polarization and a lack of leadership have left environmental protection in the United States burdened with obsolescent statutes and regulatory strategies."¹⁵⁵ Thus, the symposium organizers declared that "an urgent need" existed "for innovative strategies for environmental protection that will break the political logjam and meet environmental challenges that have become increasingly complex."¹⁵⁶

Over thirty essays and articles from participants in the *Breaking the Logjam* project were subsequently published in a two-volume symposium issue of the *New York University Environmental Law Journal*.¹⁵⁷ Further, a report collating the proposals coming out of the project was prepared and published to coincide with the installation of the 111th Congress and the Barack Obama administration in January 2009.¹⁵⁸ The report emphasized that its purpose was "to

152. See KLYZA & SOUSA, *supra* note 13, at 307–08 (noting that environmental regulatory reform initiatives "swirl[ed] in the back eddies of environmental policymaking in the last years of the Bush administration").

153. See *id.* at 286 (listing "next generation" advocates as the group whose standing has dropped the most since the late 1990s).

154. Casazza Herman et al., *supra* note 116, at 2.

155. *Id.* at 1.

156. *Id.* at 2.

157. 17 N.Y.U. ENVTL. L.J. 1, 1–1046 (2008).

158. DAVID SCHOENBROD ET AL., *BREAKING THE LOGJAM: ENVIRONMENTAL REFORM FOR THE NEW CONGRESS AND ADMINISTRATION* (2009).

provide a constructive starting point for the political dialogue that is necessary to achieve environmental law reform.”¹⁵⁹ Among other things, the report encouraged policymakers to consider a number of alternative regulatory strategies to supplement, rather than replace, traditional hierarchical regulatory approaches “to help make environmental protection regulation smarter, more flexible, and more cost effective.”¹⁶⁰

Notwithstanding the optimism underlying the *Breaking the Logjam* appeal to overcome partisan gridlock on environmental issues in Congress, the ambitious effort had no apparent effect on policymakers. Legislative gridlock and partisan polarization on environmental and most other issues not only intensified following the election of President Obama in 2008, but has since reached historically high levels.¹⁶¹ A glimmer of movement appeared in 2009 when the House passed the American Clean Energy and Security Act,¹⁶² a comprehensive climate change bill that featured a cap-and-trade marketable permit program.¹⁶³ Subsequent to this momentous occurrence, however, the Senate never even came close to passing this or any other climate change legislation, and the opportunity to enact “the most significant environmental law of a generation” quickly disappeared.¹⁶⁴ Congress also failed to meaningfully respond to the environmental catastrophe of the worst oil spill in United States history—the 2010 blowout of BP’s Deepwater Horizon in the Gulf of Mexico.¹⁶⁵ On these and many other recent high profile environmental challenges, environmental gridlock has prevailed and Congress continues to do nothing.¹⁶⁶

From its outset, the Obama administration demonstrated a decidedly negative view toward “next generation” environmental regulatory reform concepts. Within days of the January 2008

159. *Id.*

160. *Id.* at 4, 6.

161. See KLYZA & SOUSA, *supra* note 13, at 285–90 (discussing environmental policymaking between 2008 and 2012).

162. American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009).

163. KLYZA & SOUSA, *supra* note 13, at 291.

164. *Id.* at 291–92.

165. See Zellmer, *supra* note 3, at 2324, 2355–58 (noting that “no new substantive legislation has been adopted” since the BP spill); see also KLYZA & SOUSA, *supra* note 13, at 301 (describing “venomous partisanship” that blocked any action in Congress to reduce the possibility of future spills in deepwater drilling).

166. See Zellmer, *supra* note 3, at 2326, 2350–66 (describing the lack of congressional attention to such issues as climate change, deepwater oil exploration and development, hydraulic fracturing or fracking, and the production of coal and disposal of coal ash).

announcement by then President-elect Obama that Lisa Jackson would serve as EPA administrator, Ms. Jackson dismissed the Bush administration EPA's "flagship" voluntary environmental program, the National Environmental Performance Track, as "one of those window-dressing programs that has little value."¹⁶⁷ Shortly after taking office, Administrator Jackson quickly cancelled the Performance Track program as well as Climate Leaders, another high profile Bush era EPA voluntary program.¹⁶⁸ Scholars have viewed these actions as the Obama administration's rejection of the very premises of these next generation programs and in alignment with its commitment to a more aggressive approach to enforcement under conventional environmental programs than that taken by the previous administration.¹⁶⁹

IV. "NEXT GENERATION" ENVIRONMENTAL REGULATORY REFORM PROPOSALS

The well-established shortcomings of traditional environmental regulation, together with the excessively partisan and increasingly gridlocked policymaking climate, have encouraged promotion of a wide variety of alternative regulatory approaches since the early 1970s. Breaking the multitude of proposed mechanisms into discrete categories is difficult, but a basic taxonomy of proposed reforms has emerged in the environmental literature over the years.¹⁷⁰ The most widely discussed and analyzed of the "next generation" reform options include market-based regulatory instruments, voluntary or "self-regulatory" policies, and various forms of contractual or collaborative decision-making.¹⁷¹

A. Market-Based Regulatory Instruments

Regulatory reform advocates have long advocated using environmental markets—such as cap and trade, "bubble" programs,

167. Coglianese & Nash, *Performance Track's Postmortem*, *supra* note 151, at 4, 8; KLYZA & SOUSA, *supra* note 13, at 310.

168. Coglianese & Nash, *Performance Track's Postmortem*, *supra* note 151, at 8, 34; KLYZA & SOUSA, *supra* note 13, at 310.

169. KLYZA & SOUSA, *supra* note 13, at 310.

170. *See, e.g.*, Short, *supra* note 103, at 664 (breaking reform proposals into broad categories); Karkkainen, *Framing Rules*, *supra* note 105, at 77–78 (listing various categories of regulatory reform mechanisms).

171. *See* Short, *supra* note 103, at 665–66 (discussing different types of market-based regulation); Karkkainen, *Framing Rules*, *supra* note 105, at 77–78 (mentioning various types of proposed regulatory reinvention mechanisms).

and other incentive-based regulatory instruments—to supplement or even substitute for command-and-control approaches.¹⁷² Economists and legal scholars advocated use of market-based regulatory instruments as a means of pollution control even before the environmental decade of the 1970s.¹⁷³ “Green taxes” and other price-based schemes are examples of market-based regulations that seek to affect the behavior of environmental actors by creating economic incentives for firms to internalize the external costs of polluting activities.¹⁷⁴

The perceived benefit of such a regulatory approach over command-and-control regulation is that firms are permitted the flexibility to find the most cost-effective solutions in addressing the external harm that the market incentives seek to regulate.¹⁷⁵ Congress has rejected such approaches in the past as (1) unreliable, given the difficulty of establishing an efficient and effective price incentive, and (2) unrealistic, given the political unpopularity of regulatory taxes.¹⁷⁶ Even though “green taxes” are a widely utilized regulatory tool in Europe, the pervasive aversion to taxation in American politics virtually guarantees that Congress will avoid any such regulatory approach to environmental protection in the United States for the foreseeable future.¹⁷⁷ Political realities aside, environmental scholars nonetheless argue that “efficiency-oriented instruments [such] as tradable permits, corrective taxes, disclosure schemes, and other tools designed to replicate the conditions of a well-functioning market” should be the future of American environmental regulation.¹⁷⁸

Emissions-trading schemes, in which firms can freely trade pollution credits within a market created and monitored by government regulators,¹⁷⁹ have proven to be a somewhat more politically palatable market-based regulatory approach. Under the basic concept of a cap-and-trade system, the government establishes

172. See, e.g., E. Donald Elliott, *Environmental Markets and Beyond: Three Modest Proposals for the Future of Environmental Law*, 29 CAP. U. L. REV. 245, 245 (2001) (offering the expansion of environmental markets, including cap and trade, as recommendations for the “next generation” of environmental regulation).

173. ANDREWS, *supra* note 9, at 270.

174. Short, *supra* note 103, at 665–66.

175. *Id.* at 666.

176. ANDREWS, *supra* note 9, at 270.

177. Bradley C. Karkkainen, *Bottlenecks and Baselines: Tackling Information Deficits in Environmental Regulation*, 86 TEX. L. REV. 1409, 1419 (2008) [hereinafter Karkkainen, *Bottlenecks*].

178. Kysar, *supra* note 96, at 675.

179. Short, *supra* note 103, at 665.

an overall emissions cap and then issues an equivalent quantity of marketable permits among the regulated polluters.¹⁸⁰ More efficient companies that emit less than they have been allocated are allowed to sell their excess permits to companies unable to make reductions as easily or as cheaply.¹⁸¹ This creates a system that can achieve a set level of overall reductions, while rewarding the most efficient companies and seeking to meet the cap at the lowest possible cost to the economy.¹⁸²

As noted previously, the 2009 comprehensive climate change bill that passed in the House, but ultimately failed in the Senate, featured a market-based cap and trade program to regulate greenhouse gas emissions.¹⁸³ Two decades earlier, in the Clean Air Act Amendments of 1990, Congress actually enacted a cap and trade program to regulate the interstate acid rain problem that proliferated during the 1970s, created by sulfur dioxide and nitrogen oxide emissions from major American power plants.¹⁸⁴ This tradable permit system is widely acknowledged to have been extraordinarily successful and has thus become an exemplar of the potential of reform-minded alternative regulatory strategies.¹⁸⁵ The economic incentives created by the program achieved far greater emissions reductions more rapidly and cheaply than had been the case with technology-based regulations.¹⁸⁶

Observers caution that the acid rain problem, with its relatively well-identified and relatively finite market, was particularly suited for this type of market-based approach.¹⁸⁷ Other more complex and far-reaching pollution challenges might not respond as well to a tradable permit regime as to traditional regulatory approaches.¹⁸⁸ In this regard, many commentators stress that market-based incentive approaches are not the optimal approach to solving every conceivable

180. ANDREWS, *supra* note 9, at 270.

181. *Id.*; Short, *supra* note 103, at 665.

182. See Bruce Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333, 1341–48 (1985) (noting the goal of programs is “achievement of the environmental quality level that would result if all sources installed BAT controls on their discharges” and discussing incentives designed to promote this goal while rewarding those who achieve it at the lowest cost).

183. See *supra* notes 162–163 and accompanying text.

184. ANDREWS, *supra* note 9, at 271; PERCIVAL ET AL., *supra* note 20, at 628–29.

185. ANDREWS, *supra* note 9, at 271.

186. *Id.*

187. PERCIVAL ET AL., *supra* note 20, at 630.

188. *Id.*; ANDREWS, *supra* note 9, at 271.

pollution control problem.¹⁸⁹ Instead, policymakers should consider the appropriate domain for a market-based regulatory approach and utilize such tools only where they best supplement and work alongside traditional command-and-control approaches.¹⁹⁰

B. Voluntary or “Self-Regulatory” Policies

“Self-regulatory” environmental policy instruments have long been a staple of the “next generation” reform toolkit.¹⁹¹ Since the late 1980s, regulatory reform advocates have promoted the concept of industry “self-regulation,” which favors industry-proposed alternative compliance plans as a substitute for specific command-and-control regulatory requirements.¹⁹² Industry, government regulators, and concerned citizen groups typically collaborate on the design of such self-regulatory alternative plans.¹⁹³ In contrast to the “government micro-management” that is the foundation of traditional regulatory approaches, self-regulation affords industry the freedom and flexibility to select the means and methods of complying with environmental performance standards and objectives.¹⁹⁴ Self-regulatory approaches generally include some level of government review and public involvement, although the degree varies with the specific self-regulatory policy tool utilized.¹⁹⁵ Industry self-regulation is sometimes presented as an alternative to traditional government regulation, but is also often encouraged as a means of supplementing, rather than replacing, traditional regulatory approaches.¹⁹⁶ Critiques of the self-regulation concept run the gamut from enthusiastic to deeply skeptical.¹⁹⁷

189. See Karkkainen, *Bottlenecks*, *supra* note 177, at 1417–18 (noting that cap-and-trade programs are not ideal when there are concerns about localized concentrations of pollutants and discussing the public health concerns that were not addressed with the acid rain cap and trade system); Elliott, *supra* note 172, at 246–48.

190. Elliott, *supra* note 172, at 246–47.

191. Case, *Regulatory Reform Agenda*, *supra* note 8, at 36; see Toddi A. Steelman & Jorge Rivera, *Voluntary Environmental Programs in the United States*, 19 *ORG. & ENV'T* 505, 507 (2006) (detailing the various approaches to self-regulation—voluntary initiatives, negotiated agreements, and unilateral programs—that have expanded since the 1980s).

192. Case, *Regulatory Reform Agenda*, *supra* note 8, at 36.

193. *Id.*

194. Steinzor, *Reinventing Regulation*, *supra* note 65, at 104.

195. *Id.*

196. See, e.g., Case, *Changing Corporate Behavior*, *supra* note 113, at 109 (urging that despite its promise as an aid to environmental regulatory goals, self-regulation “is unlikely to ever be a feasible substitute for direct legal controls on corporate environmental behavior.”)

197. See Andrew King & Michael W. Toffel, *Self-regulatory Institutions for Solving Environmental Problems: Perspectives and Contributions from the Management Literature*, in

1. Informational Regulation

Self-regulatory mechanisms are sometimes characterized as another form of market-based regulation, given that many such mechanisms rely on market forces to create incentives for self-regulatory behavior by environmental actors.¹⁹⁸ One such example includes the concept of “informational regulation,” which emerged in the late 1980s as a potential success story in the search for effective and efficient next generation alternatives to traditional environmental regulation.¹⁹⁹ Advocates of informational regulation argue that public distribution of information can lead to self-regulatory improvement in the environmental performance of business and industry.²⁰⁰ Public information disclosure encourages such beneficial environmental behavioral change through social and market-based pressures created by informal monitoring regimes triggered by such disclosure.²⁰¹ These informal regimes include external monitoring performed by government regulators, local communities, industry competitors, economic markets, and self-monitoring by firm managers.²⁰²

The perception that informational regulatory strategies can

GOVERNANCE FOR THE ENVIRONMENT: NEW PERSPECTIVES 98, 112–13 (Magali Delmas & Oran Young eds., 2009) (exploring management literature that suggest self-regulation should be taken seriously as a solution to environmental problems); Al Iannuzzi, *Self-Regulation – Has Its Time Come?*, 33 ENVTL. L. REP. 10917, 10921–22 (2003) (noting that self-regulation has resulted in companies voluntarily reducing emission of pollutants but that there are risks associated with self-regulation such as corruption); Karkkainen, *Bottlenecks*, *supra* note 177177, at 1415 (“The problem with self-regulation . . . is accountability; industry’s incentive will always be to seek the least-cost solution . . . even if it means externalizing costs (like excessive levels of pollution) to society. Predictably, then, self-regulation will tend toward regulating with an exceedingly light hand, and this tendency will be compounded by a lack of transparency and accountability in the decision-making process.”).

198. See Short, *supra* note 103, at 666–68 (noting that “self-regulation is sometimes characterized as a particular type of market-based regulation” while discussing both similarities and differences with what are typically viewed as market-based approaches); see also Lesley K. McAllister, *Regulation by Third Party Verification*, 53 B.C. L. REV. 1, 25 (2012) (“Examples of market-based environmental regulation include . . . information regulation, such as corporate environmental reporting requirements.”).

199. Case, *Changing Corporate Behavior*, *supra* note 113, at 100, 93.

200. Sarah E. Light, *NEPA’s Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies*, 87 TUL. L. REV. 511, 519–23 (2013); David W. Case, *The Law and Economics of Environmental Information as Regulation*, 31 ENVTL. L. REP. 10773, 10785 (2001) [hereinafter Case, *Environmental Information as Regulation*]; Case, *Corporate Environmental Reporting*, *supra* note 103, at 381 & n.11.

201. Bradley C. Karkkainen, *Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm?*, 89 GEO. L.J. 257, 261–62 (2001) [hereinafter Karkkainen, *Information as Environmental Regulation*]; Case, *Environmental Information as Regulation*, *supra* note 200, at 10785–86.

202. Case, *Environmental Information as Regulation*, *supra* note 200, at 10785–86.

successfully create conditions leading to desirable self-regulatory environmental behavior is largely fueled by the relative success of the Toxics Release Inventory (TRI). The TRI was created in 1986 by the Emergency Planning and Community Right-to-Know-Act (EPCRA).²⁰³ Manufacturing facilities have been required to report to the TRI program since 1988.²⁰⁴ Public access to TRI information has been credited with influencing companies to make voluntary reductions in releases of the chemicals subject to the reporting requirements.²⁰⁵ EPA asserts that public dissemination of information from the TRI database has induced companies to sharply reduce overall levels of releases of TRI chemicals since the program's beginning.²⁰⁶ These reductions have occurred despite the fact that the releases may be completely lawful under existing environmental regulatory programs.²⁰⁷ Importantly, EPCRA's TRI reporting requirement does not itself make the releases of toxic chemicals to air, water or land unlawful.²⁰⁸ The requirement is simply that the releases must be reported annually and that the information must subsequently be made publicly available.²⁰⁹

In addition to experience with the TRI, some limited studies by economists have shown that public disclosure of negative environmental information by companies can motivate them to improve their future environmental performance.²¹⁰ These studies

203. See *supra* note 66 and accompanying text; Shameek Konar & Mark A. Cohen, *Information as Regulation: The Effect of Community Right to Know Law on Toxic Emissions*, 32 J. ENVTL. ECON. & MGMT. 109, 110 (1997) (explaining that the Emergency Planning and Community Right-to-Know Act required certain manufacturers to disclose details of toxic chemical emissions).

204. *Id.*

205. Case, *Corporate Environmental Reporting*, *supra* note 103, at 385–86; ANDREWS, *supra* note 9, at 273; Bernard A. Weintraub, *Access to Information*, in *THE LAW OF ENVIRONMENTAL JUSTICE: THEORIES AND PROCEDURES TO ADDRESS DISPROPORTIONATE RISKS* 265, 276 (Michael B. Gerrard & Sheila R. Foster eds., 2d ed. 2008).

206. Case, *Corporate Environmental Reporting*, *supra* note 103, at 385 & n.31; see also Light, *supra* note 200, at 521 (“TRI reporting rules have led to drastic reductions in the use and release of toxic chemicals.”).

207. Case, *Corporate Environmental Reporting*, *supra* note 103, at 385–86.

208. See ANDREWS, *supra* note 9, at 273 (noting that the EPCRA just required industries to report their use and release of hundreds of toxic chemicals as opposed to regulating those emissions).

209. *Id.*

210. See Konar & Cohen, *supra* note 203, at 123 (concluding that when new information is released about a company's emissions and has an effect on that company's valuation, the company is likely to reduce emissions and improve environmental performance); James T. Hamilton, *Pollution as News: Media and Stock Market Reactions to the Toxics Release Inventory Data*, 28 J. ENVTL. ECON. & MGMT. 98, 112 (1995) (finding that TRI data is of value to

suggest that, in theory, post-disclosure pressures brought to bear by economic markets and public opinion create market incentives that positively affect the behavior of environmental actors.²¹¹ However, the effect that information disclosure has on these market forces is poorly understood, at best.²¹² Even so, such empirical evidence encourages advocates of “informational regulation” to seek increased use of this alternative regulatory strategy as a tool for protecting the environment.²¹³

2. Environmental Self-Management

Another alternative self-regulatory approach that has been widely scrutinized in academic literature concerns policies that promote or require “environmental self-management,” such as through implementation of corporate environmental management systems (EMSs).²¹⁴ An EMS “is a formal set of internal procedures and policies that create a framework for an organization to identify, minimize, and manage environmental impacts, ensure compliance

journalists and investors, and that stock prices would decrease when companies disclosed information about emissions); Madhu Khanna et al., *Toxics Release Information: A Policy Tool for Environmental Protection*, 36 J. ENVTL. ECON & MGMT. 243, 265 (1998) (noting that repeated provision of information about company’s emissions affected the value of the company over time, and that this led to companies increasing off-site transfers to recycling and treatment facilities). For further discussion of these studies, see Case, *Environmental Information as Regulation*, *supra* note 200, at 10777–79.

211. Case, *Corporate Environmental Reporting*, *supra* note 103, at 383.

212. See *id.* at 386 (“The effect of TRI disclosure on firm environmental behavior has generated considerable academic interest in environmental informational regulation. Scholarly literature in this area sounds both optimistic and cautionary tones regarding the potential benefits of this approach as an environmental protection policy tool.”).

213. See Light, *supra* note 200, at 519 (concluding that informational regulation would be effective when used in conjunction with traditional regulatory mechanisms, such as taxes); Case, *Changing Corporate Behavior*, *supra* note 113, at 105–06 (explaining disclosure of information about environmental practices will increase communication between managers and stakeholders and will induce the company to internalize important societal values and possibly change its behavior); Case, *Corporate Environmental Reporting*, *supra* note 103, at 438–42 (concluding that “to effectuate positive corporate environmental behavioral change, public information disclosure mechanisms must be incorporated within formal EMS standards”).

214. E.g., Case, *Changing Corporate Behavior*, *supra* note 113, at 77; Cary Coglianese, *The Managerial Turn in Environmental Policy*, 17 N.Y.U. ENVTL. L.J. 54, 55 (2008) [hereinafter Coglianese, *Managerial Turn*]; LEVERAGING THE PRIVATE SECTOR: MANAGEMENT-BASED STRATEGIES FOR IMPROVING ENVIRONMENTAL PERFORMANCE 14–17 (Cary Coglianese & Jennifer Nash eds., 2006); Richard N.L. Andrews et al., *Environmental Management Systems: History, Theory, and Implementation Research*, in REGULATING FROM THE INSIDE: CAN ENVIRONMENTAL MANAGEMENT SYSTEMS ACHIEVE POLICY GOALS? 31, 31–33 (Cary Coglianese & Jennifer Nash eds., 2001); Hope Babcock, *Corporate Environmental Social Responsibility: Corporate “Greenwashing” or a Corporate Culture Game Changer?*, 21 FORDHAM ENVTL. L. REV. 1, 55–58 (2010).

with applicable environmental laws and regulations, and reduce wasteful use of natural resources.”²¹⁵ Cary Coglianese and Jennifer Nash characterize policies to promote the use of these and other self-management tools as “management-based” regulatory strategy “used by those *outside* an organization to change the management practices and behaviors of those on the *inside*.”²¹⁶

The potential benefits of this form of self-regulatory approach are increased compliance with existing command-and-control regulatory requirements and “beyond compliance” reduction of currently unregulated environmental impacts and risks.²¹⁷ Indeed, some empirical evidence suggests that EMS-based regulatory approaches may more effectively improve unregulated environmental impacts than those already the subject of traditional regulation.²¹⁸ Again, however, commentators routinely caution that such self-regulatory policies should function only as supplements, rather than replacements, to existing environmental regulatory approaches.²¹⁹

3. Voluntary Environmental Programs

Perhaps the self-regulatory mechanism that has been most actively explored over the past two decades, particularly by EPA, is voluntary environmental regulatory initiatives, also known in environmental literature as “voluntary environmental programs.”²²⁰ Broadly speaking, these programs seek to encourage firms to voluntarily improve corporate environmental performance beyond levels required by mandatory environmental regulatory regimes.²²¹

215. Case, *Changing Corporate Behavior*, *supra* note 113, at 77.

216. Cary Coglianese & Jennifer Nash, *Management-Based Strategies for Improving Private-Sector Environmental Performance*, 36 ENVTL. L. REP. 10003, 10005 (2006) [hereinafter Coglianese & Nash, *Management-Based Strategies*].

217. Case, *Changing Corporate Behavior*, *supra* note 113, at 109.

218. See Coglianese & Nash, *Management-Based Strategies*, *supra* note 216, at 10012 (detailing a study that found management systems can improve unregulated aspects of business, such as spills and energy conservation that are controlled by internal management and coordination).

219. Case, *Changing Corporate Behavior*, *supra* note 113, at 109; Babcock, *supra* note 214, at 2.

220. See Coglianese & Nash, *Performance Track's Postmortem*, *supra* note 151, at 3 (“Of the various innovations initiated by EPA over the last twenty years, the development of voluntary environmental programs has been among the most distinctive.”). See generally Cary Coglianese & Jennifer Nash, *Government Clubs: Theory and Evidence from Voluntary Environmental Programs*, in VOLUNTARY PROGRAMS: A CLUB THEORY PERSPECTIVE 231 (Matthew Potoski & Aseem Prakash eds., 2009) [hereinafter Coglianese & Nash, *Government Clubs*] (analyzing the ways that voluntary programs run by EPA “[attract] members while upholding standards”).

221. Darnall & Sides, *supra* note 13, at 96; Bruce Paton, *Voluntary Environmental Initiatives*

Voluntary initiatives can be either private or public efforts. They can come in many forms, including “programs, codes, agreements, and commitments” that require industries, firms, or facilities to improve their environmental performance.²²² Although there is considerable variation within categories, such initiatives tend to fall within four types of approaches: public voluntary programs established and promoted by governmental authorities (also referred to as “voluntary challenge” programs); negotiated voluntary agreements between firms and regulators (discussed in subsection IV.C. below); private voluntary programs initiated and promoted by industry associations or non-governmental organizations;²²³ and unilateral initiatives established by and undertaken within a single firm.²²⁴

At the height of the environmental regulatory reform debates in the United States during the 1980s and 1990s, consensus on how to best reform the existing system was elusive.²²⁵ Because political and social conflict often accompanied such debate, voluntary environmental programs became a popular alternative for obtaining environmental improvements from business and industry outside the

and Sustainable Industry, 9 BUS. STRATEGY & ENV'T 328, 328 (2000) [hereinafter Paton, *Voluntary Environmental Initiatives*].

222. Darnall & Sides, *supra* note 13, at 96; *see also* Paton, *Voluntary Environmental Initiatives*, *supra* note 221, at 329 (identifying the four types of voluntary initiatives that can be used to reduce pollution and increase sustainability).

223. *See* Paton, *Voluntary Environmental Initiatives*, *supra* note 221, at 329 (describing voluntary challenges, negotiated agreements, and private codes that are three of the four types of voluntary initiatives). The most widely known industry promoted private voluntary initiative is the “Responsible Care” program developed in 1989 by the American Chemistry Council (formerly known as the Chemical Manufacturers Association). Jennifer Nash & John R. Ehrenfeld, *Factors That Shape EMS Outcomes in Firms*, in REGULATING FROM THE INSIDE: CAN ENVIRONMENTAL MANAGEMENT SYSTEMS ACHIEVE POLICY GOALS 61, 64 (Cary Coglianese & Jennifer Nash eds., 2001); *see* Thomas P. Lyon & John W. Maxwell, “Voluntary” *Approaches to Environmental Regulation: A Survey*, in ECONOMIC INSTITUTIONS AND ENVIRONMENTAL POLICY 75, 78–79 (Maurizio Franzini & Antonio Nicita eds., 2002) [hereinafter Lyon & Maxwell, “Voluntary” *Approaches*] (summarizing three examples of voluntary negotiated agreements between regulators and businesses to reduce emissions). Perhaps the best known non-governmental organization initiated private voluntary program was launched in late 1989 by the Coalition for Environmentally Responsible Economies (CERES). *The Ceres Principles*, CERES, <http://www.ceres.org/about-us/our-history/ceres-principles> (last visited Nov. 8, 2014).

224. Paton, *Voluntary Environmental Initiatives*, *supra* note 221, at 329; Steelman & Rivera, *supra* note 191, at 507; Kathryn Harrison, *Challenges in Evaluating Voluntary Environmental Programs*, in NEW TOOLS FOR ENVIRONMENTAL PROTECTION: EDUCATION, INFORMATION, AND VOLUNTARY MEASURES 263, 264–65 (Thomas Dietz & Paul C. Stern eds., 2002) [hereinafter Harrison, *Voluntary Environmental Programs*].

225. Darnall & Sides, *supra* note 13, at 97; Case, *Regulatory Reform Agenda*, *supra* note 8, at 26–59.

context of reform of specific statutory programs.²²⁶ The perceived value in using voluntary initiatives in this manner was the ability to directly address environmental issues that concerned citizens or public interest groups, while simultaneously avoiding the difficult political conflicts often associated with regulatory reform efforts.²²⁷ In industrialized countries, environmental authorities have typically utilized voluntary environmental regulatory initiatives to encourage “beyond compliance” behavior by regulated entities, or to limit pollution such as greenhouse gases for which there were no mandatory regulations in place.²²⁸ In contrast, developing countries have generally utilized voluntary programs to compensate for “rampant non-compliance” with and weak enforcement of mandatory environmental regulations.²²⁹

Public voluntary programs are initiatives by the government to challenge targeted firms or industries to improve their environmental performance beyond regulatory requirements.²³⁰ Criteria for eligibility, rewards for participation, and performance obligations for participating firms are established by environmental regulators or other public bodies.²³¹ Although governmental bodies promote these programs to industry, the specific performance targets and timetables are not negotiated with industry or participants in advance.²³² A public voluntary program is generally an open-ended challenge that applies widely to particular industry sectors or types of firms, but which no particular firm is expected or required to accept.²³³ Many voluntary challenge programs are accompanied by an explicit or

226. Darnall & Sides, *supra* note 13, at 97.

227. *Id.*

228. Alan Blackman et al., *Voluntary Environmental Regulation in Developing Countries: Mexico's Clean Industry Program 1* (Resources for the Future, Discussion Paper No. 07-36, July 2007), available at <http://www.rff.org/documents/RFF-DP-07-36.pdf>.

229. *Id.*

230. John Moffet & Francois Bregha, *Non-Regulatory Environmental Measures, in VOLUNTARY INITIATIVES: THE NEW POLITICS OF CORPORATE GREENING* 15, 16 (Robert B. Gibson ed., 1999); Harrison, *Voluntary Environmental Programs, supra* note 224, at 264.

231. Richard D. Morgenstern & William A. Pizer, *Introduction: The Challenge of Evaluating Voluntary Programs, in REALITY CHECK: THE NATURE AND PERFORMANCE OF VOLUNTARY ENVIRONMENTAL PROGRAMS IN THE UNITED STATES, EUROPE, AND JAPAN* 1, 4 (Richard D. Morgenstern & William A. Pizer eds., 2007) [hereinafter Morgenstern & Pizer, *Evaluating Voluntary Programs*].

232. *Id.*

233. Harrison, *Voluntary Environmental Programs, supra* note 224, at 264; Philippe Thalmann & Andrea Baranzini, *An Overview of the Economics of Voluntary Approaches in Climate Policies, in VOLUNTARY APPROACHES IN CLIMATE POLICY* 1, 5 (Andrea Baranzini & Philippe Thalmann eds., 2004).

implied threat of regulation or other mandatory policy instruments—such as taxes—should voluntary approaches fail.²³⁴ Some public voluntary programs are less coercive, with no threats of regulation or penalties for nonparticipation.²³⁵

In addition to threats of future regulation, public agencies offer various incentive combinations to encourage participation in public voluntary programs, including “favorable publicity, technical assistance, and opportunities for positive interactions with regulators.”²³⁶ Public recognition is typically provided through awards, press announcements, and the ability to use product logos indicating participation in a particular program.²³⁷ Other less tangible incentives offered by public authorities to encourage participation may include access to information on new technologies or approaches for reducing costs in pollution abatement programs.²³⁸

Firms that participate in public voluntary programs typically commit to specific goals in a “memorandum of understanding” with the public agency, although the commitment is nonbinding and no penalty is imposed for withdrawal from the program or nonperformance of the specific goals.²³⁹ However, withdrawal or nonperformance does result in losing all benefits of participation, including the public recognition that the program provides.²⁴⁰ Information disclosure and dissemination are often required to participate in public voluntary programs, which allows government authorities to make program adjustments and enhances the public pressure aspect of participation.²⁴¹

During the 1990s, EPA became strongly committed to the use of

234. Harrison, *Talking with the Donkey*, *supra* note 103, at 56.

235. *Id.*

236. Thomas P. Lyon & John W. Maxwell, *Environmental Public Voluntary Programs Reconsidered*, 35 POL’Y STUD. J. 723, 723 (2007) [hereinafter Lyon & Maxwell, *Voluntary Programs Reconsidered*].

237. Janice Mazurek, *Government-Sponsored Voluntary Programs for Firms: An Initial Survey*, in NEW TOOLS FOR ENVIRONMENTAL PROTECTION: EDUCATION, INFORMATION, AND VOLUNTARY MEASURES 219, 223 (Thomas Dietz & Paul C. Stern eds., 2002).

238. LADA V. KOCHTCHEVA, *COMPARATIVE ENVIRONMENTAL REGULATION IN THE UNITED STATES AND RUSSIA: INSTITUTIONS, FLEXIBLE INSTRUMENTS, AND GOVERNANCE* 110–11 (2009).

239. Dinah A. Koehler, *The Effectiveness of Voluntary Environmental Programs – A Policy at a Crossroads?*, 35 POL’Y STUD. J. 689, 691 (2007).

240. Mazurek, *supra* note 237, at 223.

241. Koehler, *supra* note 239, at 692; Harrison, *Voluntary Environmental Programs*, *supra* note 224, at 264–65.

public voluntary programs as a regulatory policy tool.²⁴² The best-known EPA public voluntary program is perhaps the first; the 33/50 program launched in 1989, and often referred to as “the grandfather of all voluntary programs.”²⁴³ The program encouraged participants to voluntarily reduce emissions of 17 high-priority toxic chemicals that were also required to be reported to the TRI under EPCRA.²⁴⁴ The program sought to reduce emissions 33% by the end of 1992 and 50% by the end of 1995.²⁴⁵ Individual participating firms were encouraged to set their own reduction goals and to choose their own methods of achieving them.²⁴⁶ Eventually, firms that accounted for more than 60% of the 33/50 chemical releases agreed to participate in the program.²⁴⁷

EPA eventually declared the 33/50 program a success, claiming that the initiative achieved its goals by 1994, a full year ahead of schedule, primarily through the voluntary efforts of participating firms.²⁴⁸ The perceived success of the 33/50 program led EPA to initiate additional public voluntary programs. By the time the 33/50 program ended in 1996, EPA had established more than eighty voluntary programs.²⁴⁹ By the mid-2000s, EPA managed more than sixty national-scope public voluntary programs at the federal level.²⁵⁰

The largest number of EPA initiated public voluntary programs, by a substantial margin, has been in the areas of pollution prevention and climate change.²⁵¹ However, EPA initiatives have been developed in a wide variety of areas, including agriculture, air and water quality, energy efficiency, waste management, and product labeling.²⁵² Some EPA initiatives are quite innovative and unique.

242. Koehler, *supra* note 239, at 689.

243. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 729; Madhu Khanna, *The U.S. 33/50 Voluntary Program: Its Design and Effectiveness*, in REALITY CHECK: THE NATURE AND PERFORMANCE OF VOLUNTARY ENVIRONMENTAL PROGRAMS IN THE UNITED STATES, EUROPE, AND JAPAN 15, 15 (Richard D. Morgenstern & William A. Pizer eds., 2007).

244. Khanna, *supra* note 243, at 15.

245. *Id.*

246. *Id.* at 38; Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 723.

247. Khanna, *supra* note 243, at 39.

248. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 724.

249. Khanna, *supra* note 243, at 38.

250. Coglianese & Nash, *Performance Track's Postmortem*, *supra* note 151, at 3; Koehler, *supra* note 239, at 692.

251. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 723; Mazurek, *supra* note 237, at 221.

252. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 723.

For instance, in 1998 EPA established the HPV Challenge Program under the auspices of the Clinton-era Chemical Right-to-Know initiative.²⁵³ This initiative encouraged the chemical industry to voluntarily perform scientific testing to generate previously unavailable baseline health and environmental effects data for “high production volume” chemicals produced in or imported into the United States.²⁵⁴

For nearly a decade, the flagship EPA voluntary program was the National Environmental Performance Track. Performance Track was established in 2000 during the Clinton administration and, as discussed above, ended by the Obama administration EPA in 2009.²⁵⁵ The premise of the program was to create meaningful incentives for environmental leaders to voluntarily achieve “beyond compliance” environmental performance.²⁵⁶ These incentives included being designated as low priority for routine inspections and reduced regulatory and administrative requirements.²⁵⁷ In exchange for the rewards and recognition provided by the program, Performance Track members were expected to maintain regulatory compliance and develop environmental goals exceeding the existing regulatory requirements.²⁵⁸ Together with others of its next generation programs, EPA intended for Performance Track to “shift . . . the curve” of environmental performance in the regulated community “in the direction of environmental excellence.”²⁵⁹

In a recent extensive analysis of the Performance Track, Cary Coglianese and Jennifer Nash found that close scrutiny of the program did not support EPA’s “sweeping assertions” regarding the program’s beneficial achievements.²⁶⁰ At best, “only the most modest overall impact” on environmental quality could be attributed to the program.²⁶¹ This is consistent with the broader perception among

253. David W. Case, *The EPA’s HPV Challenge Program: A Tort Liability Trap?*, 62 WASH. & LEE L. REV. 147, 159–62 (2005) [hereinafter Case, *HPV Challenge Program*].

254. *Id.*

255. Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 4–8; *see supra* notes 167–68 and accompanying text.

256. Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 15; Case, *Regulatory Reform Agenda*, *supra* note 8, at 75–76.

257. Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 15; Case, *Regulatory Reform Agenda*, *supra* note 8, at 75–76.

258. Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 15.

259. *Id.*

260. *Id.* at 1.

261. *Id.* at 64.

scholars that EPA voluntary programs so far have been disappointing in terms of both results and impacts.²⁶² Explanations for the merely marginal impacts that voluntary initiatives have had on environmental protection problems include the consistently low participation rates within these programs.²⁶³ Nonetheless, given the current gridlock in Congress, interest in such voluntary programs has not waned.²⁶⁴ EPA under the Obama administration, despite cancelling the Performance Track program, continues to operate dozens of other voluntary environmental programs.²⁶⁵ Such programs thus remain “increasingly attractive avenues for seeking environmental improvement in the absence of new legislative authority” from Congress.²⁶⁶

C. Contractual or Collaborative Decision Making

A separate strand of the next generation environmental reform movement has involved advocacy for “collaborative” or “cooperative” approaches to environmental regulation.²⁶⁷ Given the adversarial nature and litigiousness that permeates the command-and-control regulatory system, reformers argue that collaborative approaches “will mitigate conflict and lead to more effective, efficient, and flexible policy choices.”²⁶⁸ Instead of acting as adversaries, interested stakeholders—such as industry, government regulators, and non-governmental organizations—work as partners in decision-making on environmental policy and developing solutions to specific problems.²⁶⁹ Reform advocates hope that such alternative approaches would “take the confrontational edge off” the 1970s era command-and-control system, produce more flexible, less costly regulations, and lead to improved monitoring and enforcement.²⁷⁰ Example collaborative mechanisms include negotiated voluntary agreements and negotiated regulations.

262. Case, *HPV Challenge Program*, *supra* note 253, at 198; Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 63.

263. Case, *HPV Challenge Program*, *supra* note 253, at 198.

264. Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 83.

265. *Id.* at 8–9.

266. *Id.* at 83.

267. Sousa & Klyza, *supra* note 107, at 379; Case, *Regulatory Reform Agenda*, *supra* note 8, at 36–37.

268. Sousa & Klyza, *supra* note 107, at 379.

269. *Id.*; Case, *Regulatory Reform Agenda*, *supra* note 8, at 36–37.

270. Sousa & Klyza, *supra* note 107, at 380; Case, *Regulatory Reform Agenda*, *supra* note 8, at 36–37.

1. Negotiated Voluntary Agreements

Negotiated voluntary agreements are created out of direct negotiation over specific environmental objectives between government authorities and a firm or industry group, though other stakeholders may also be involved.²⁷¹ Negotiated agreements typically contain a specific environmental performance target and a timetable for attaining that target.²⁷² Out of all the various types of voluntary environmental regulatory initiatives, negotiated agreements are most similar to regulation.²⁷³ A negotiated agreement is like regulation in that specific performance obligations are created that must be met by the industry party.²⁷⁴ Most negotiated voluntary agreements are nonbinding, although some, as was the case with EPA's Project XL (described below), take the form of legally binding contracts.²⁷⁵ Even with nonbinding agreements, government authorities have a strong expectation of compliance by the industry party, and the agreement itself is commonly prompted by an express or implied threat of regulation or environmental taxation should the voluntary approach not succeed.²⁷⁶

Negotiated voluntary agreements have been the focus of two noteworthy EPA programs, Project XL and the Common Sense Initiative (CSI).²⁷⁷ The CSI was one of EPA's earliest regulatory "reinvention" programs, commencing in 1994 and roughly concluding by the end of the decade.²⁷⁸ The program involved direct negotiation with environmentally significant industries—metal finishing, computer and electronics, automobile manufacturing, printing, petroleum refining, and iron and steel—to develop voluntary agreements for integrated regulatory approaches for each industrial sector.²⁷⁹

In contrast, "Project XL convene[d] stakeholders on a project-by-project basis to negotiate alternative compliance plans to existing regulatory requirements for a single factory, community, or federal

271. Morgenstern & Pizer, *Evaluating Voluntary Programs*, *supra* note 231, at 4; Harrison, *Voluntary Environmental Programs*, *supra* note 224, at 264.

272. Morgenstern & Pizer, *Evaluating Voluntary Programs*, *supra* note 231, at 4.

273. Harrison, *Voluntary Environmental Programs*, *supra* note 224, at 264.

274. *Id.*; Mazurek, *supra* note 237, at 223.

275. *Id.*

276. Harrison, *Voluntary Environmental Programs*, *supra* note 224, at 264.

277. Mazurek, *supra* note 237, at 221.

278. Case, *Regulatory Reform Agenda*, *supra* note 8, at 41–43.

279. *Id.*; Mazurek, *supra* note 237, at 221.

facility.”²⁸⁰ This process resulted in a final project agreement between EPA and the firm sponsoring the project.²⁸¹ Because firms received relief from existing laws and regulations in exchange for environmental performance achievements superior to regulatory mandates, certain portions of the agreement were legally binding.²⁸² The binding elements were generally included in a separate document, such as a permit, to ensure enforceability.²⁸³ The number of negotiated voluntary agreements that eventually resulted from the Project XL process is underwhelming.²⁸⁴ EPA accepted project proposals from 1995 until 2003 and ultimately reached agreement on only 50 projects.²⁸⁵

2. Negotiated Regulations

A key component of the Clinton Administration’s mid-1990s “regulatory reinvention” project was support for “negotiated rulemaking.”²⁸⁶ Following experiments with “negotiated rulemaking” during the 1970s and 1980s,²⁸⁷ Congress enacted the Negotiated Rulemaking Act in 1990.²⁸⁸ The law authorizes federal agencies to assemble with representatives of parties affected by a proposed regulation to negotiate an agreement on regulatory requirements before the proposed rule is published in the Federal Register.²⁸⁹ The statute does not mandate that agencies use negotiated regulation, but allows for the option at an agency’s discretion.²⁹⁰ The negotiated rulemaking process embraces the principles of collaborative regulatory approaches in order to develop improved rules, increase public acceptance, and minimize the probabilities of subsequent

280. Case, *Regulatory Reform Agenda*, *supra* note 8, at 43; Mazurek, *supra* note 237, at 221.

281. Case, *Regulatory Reform Agenda*, *supra* note 8, at 43.

282. Mazurek, *supra* note 237, at 223.

283. *Id.*

284. See Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 73 (stating “[b]y that time, [2003,] only about fifty regulated entities were fully participating in Project XL, considerably fewer than anticipated when the program was announced eight years earlier”).

285. *Id.* at 71–72.

286. Sousa & Klyza, *supra* note 107, at 406; see Case, *Regulatory Reform Agenda*, *supra* note 8, at 44–45 (describing and explaining “negotiated rulemaking” and its implementation).

287. See generally Cary Coglianese, *Assessing Consensus: The Promise and Performance of Negotiated Rulemaking*, 46 DUKE L.J. 1255 (1997) [hereinafter Coglianese, *Assessing Consensus*] (assessing the effectiveness and value of negotiated rulemaking).

288. Negotiated Rulemaking Act, Pub. L. No. 101-648, 104 Stat. 4969 (codified at 5 U.S.C. §§ 561–570a); Sousa & Klyza, *supra* note 107, at 403.

289. Sousa & Klyza, *supra* note 107, at 404–05.

290. *Id.* at 404.

litigation.²⁹¹

EPA has utilized negotiated rulemaking more frequently than any other agency, primarily because the process can reduce agency resources devoted to administrative rulemaking and forestall related litigation.²⁹² Even so, use of the negotiated rulemaking process is exceedingly rare.²⁹³ Further, studies suggest that claims that the process reduces the costs of rulemaking or attendant litigation rates may be illusory.²⁹⁴ Some experts thus question whether this mechanism is an effective alternative regulatory tool in the “next generation” toolkit.²⁹⁵ In fact, even EPA’s use of this mechanism has greatly diminished over the years, with only one negotiated rulemaking between 2001 and 2012, contrasted with eight uses between 1991 and 1992.²⁹⁶ Unless and until there is a return of enthusiasm and support for this approach, negotiated rulemaking cannot be considered a viable component of the next generation environmental regulatory reform movement.²⁹⁷

V. CONGRESSIONAL ABDICATION AND THE “LOST GENERATION” OF ENVIRONMENTAL REGULATORY REFORM

The agenda of the “next generation” environmental regulatory reform movement has been equal parts optimistic and ambitious. The next generation agenda sought “to develop new strategies for attacking new environmental problems . . . to develop better strategies for solving old ones, and . . . to do both in ways that are more efficient, less taxing, and engender less political opposition.”²⁹⁸ Ultimately, reformers sought new and better strategies for long-term, industry-wide alternatives to command-and-control regulation.²⁹⁹ In

291. Case, *Regulatory Reform Agenda*, *supra* note 8, at 44–45.

292. *Id.* at 45; KLYZA & SOUSA, *supra* note 13, at 198.

293. KLYZA & SOUSA, *supra* note 13, at 198.

294. Coglianese, *Assessing Consensus*, *supra* note 287, at 1295–309; KLYZA & SOUSA, *supra* note 13, at 198–99.

295. KLYZA & SOUSA, *supra* note 13, at 198–99.

296. *Id.* at 309.

297. *See id.* (concluding that “[n]egotiated rulemaking is playing no significant role in a transformation to next generation rulemaking”).

298. *Id.* at 4–5 (quoting BROOKINGS INSTITUTION, ENVIRONMENTAL GOVERNANCE: A REPORT ON THE NEXT GENERATION OF ENVIRONMENTAL POLICY 6 (Donald F. Kettl ed., 2002)).

299. Case, *Regulatory Reform Agenda*, *supra* note 8, at 4; *see also* Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 24 (emphasizing EPA’s prediction that reform initiatives “would induce broader, systematic changes in the U.S. environmental regulatory system”).

the best-case scenario, environmental regulatory policy would undergo transformative reconstruction, with new statutes ushering in a new regulatory regime.³⁰⁰ To state the obvious, this has not happened. To perhaps state the only slightly less obvious, the prospects that Congress will enact any such positive reform-minded environmental legislation in the foreseeable future appear nonexistent.³⁰¹

It is important to note that congressional gridlock on environmental policy has not completely prevented forward movement on environmental regulatory reform.³⁰² To the contrary (as discussed in Section IV above) congressional inaction on environmental issues has led to substantial reform efforts undertaken primarily through EPA and other executive branch initiatives.³⁰³ Disappointingly, however, despite decades of effort and resources devoted to such executive branch environmental regulatory reform or “reinvention” initiatives, the results are widely panned by researchers as having produced, at best, merely modest environmental benefits.³⁰⁴

300. KLYZA & SOUSA, *supra* note 13, at 225.

301. See *supra* notes 88–95 and accompanying text.

302. See KLYZA & SOUSA, *supra* note 13, at 2, 180 (discussing alternative pathways in which environmental policy is developing, including use of appropriations politics, executive-branch policymaking, judicial decisions, collaboration-based politics, and state-focused policymaking); Case, *Regulatory Reform Agenda*, *supra* note 8, at 3, 34–35, 39 (describing Clinton era executive branch environmental reform initiatives designed to overcome Congressional gridlock on environmental reform); see also Andrews, *supra* note 2, at 242 (discussing the failure of Congress to enact legislation for additional alternative regulatory approaches after the 1990 Clean Air Act Amendments leading to EPA “initiat[ing] a wide range of voluntary programs to promote and reward positive environmental initiatives and best practices by leading businesses”).

303. See KLYZA & SOUSA, *supra* note 13, at 2, 180 (discussing alternative pathways in which environmental policy is developing, including use of appropriations politics, executive-branch policymaking, judicial decisions, collaboration-based politics, and state-focused policymaking); Case, *Regulatory Reform Agenda*, *supra* note 8, at 3, 34–35, 39 (describing Clinton era executive branch environmental reform initiatives designed to overcome Congressional gridlock on environmental reform); see also Andrews, *supra* note 2, at 242 (discussing the failure of Congress to enact legislation for additional alternative regulatory approaches after the 1990 Clean Air Act Amendments leading to EPA “initiat[ing] a wide range of voluntary programs to promote and reward positive environmental initiatives and best practices by leading businesses”).

304. See Case, *Regulatory Reform Agenda*, *supra* note 8, at 4 (discussing the perception that EPA’s environmental reinvention effort “had foundered and the benefits of pursuing such efforts no longer exceeded their costs”); KLYZA & SOUSA, *supra* note 13, at 205, 207, 225 (describing the results of reinvention experimentation as “modest” and achieving “limited” or “little progress”); Coglianese & Nash, *Performance Track’s Postmortem*, *supra* note 151, at 64 (characterizing Performance Track initiative as having “only the most modest overall impact on the nation’s environmental quality”); Steinzor, *Reinventing Regulation*, *supra* note 65, at 151 (“None of the EPA’s reinvention initiatives has found significant new approaches, especially

Congress bears the lion's share of responsibility for the failure of these experimental reform initiatives to live up to their promise. Indeed, 25 years, and counting, of congressional abdication of responsibility for the environmental regulatory system has created a "lost generation" of environmental regulatory reform. Without Congress' support and participation in these reform efforts, alternative regulatory approaches have been denied a full and fair opportunity to thrive and prosper despite two decades of exertion.

Scholars frequently attribute the inefficacy of alternative programs to the lack of congressional support for environmental regulatory reform efforts through authorizing statutes.³⁰⁵ For example, cornerstone Clinton era reinvention programs such as Project XL and the CSI were seriously hindered by substantial concerns over whether EPA had the legal authority to grant the waivers of statutory and regulatory requirements both experimental programs anticipated.³⁰⁶ The possibility that collaboratively negotiated agreements might be subsequently challenged by citizen suits due to a lack of statutory authorization led to risk-averse behavior by both EPA and participating industries and firms.³⁰⁷ Instead of dramatic experiments and bold, risk-taking innovation, CSI and XL projects typically defaulted to "peripheral matters" and

ones that can be applied on an industry-wide basis."); David B. Spence & Lekha Gopalakrishnan, *Bargaining Theory & Regulatory Reform: The Political Logic of Inefficient Regulation*, 53 VAND. L. REV. 599, 601 (2000) (observing that "[m]any of [EPA's] reinvention programs have stalled or failed to meet expectations"); Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 734 (describing modest environmental benefits demonstrated by public voluntary environmental programs); Richard D. Morgenstern & William A. Pizer, *Concluding Observations: What Can We Learn from the Case Studies?*, in REALITY CHECK: THE NATURE AND PERFORMANCE OF VOLUNTARY ENVIRONMENTAL PROGRAMS IN THE UNITED STATES, EUROPE, AND JAPAN 166, 184 (Richard D. Morgenstern & William A. Pizer eds., 2007) [hereinafter, Morgenstern & Pizer, *Case Studies*] (concluding from review of research on voluntary environmental programs that environmental gains were limited and none of the case studies "found truly convincing evidence of dramatic environmental improvements"); Darnall & Sides, *supra* note 13, at 110 (concluding that "little evidence" existed that overall participation in voluntary environmental programs "is associated with improved environmental performance").

305. Case, *Regulatory Reform Agenda*, *supra* note 8, at 53; Andrews, *supra* note 2, at 258; see, e.g., Sousa & Klyza, *supra* note 107, at 419–21 (noting that both the CSI and XL programs were "plagued by uncertainty about whether the EPA had the authority to grant the waivers of statutory and regulatory requirements anticipated by the programs," which a gridlocked Congress failed to address); KLYZA & SOUSA, *supra* note 13, at 10 (stating that "the absence of congressional sanction has decisively limited the advance of next generation reforms").

306. Sousa & Klyza, *supra* note 107, at 419–20; Case, *Regulatory Reform Agenda*, *supra* note 8, at 53–55.

307. Sousa & Klyza, *supra* note 107, at 419–20; Case, *Regulatory Reform Agenda*, *supra* note 8, at 53–55.

modest ideas already permissible under the existing regulatory system.³⁰⁸

Thus, limited results and modest environmental improvements flowing from these initiatives may have been inevitable. A fundamental disconnect exists when reform programs ostensibly designed to promote innovative, alternative approaches to traditional regulation imagine a level of regulatory flexibility that Congress has not authorized.³⁰⁹ As Sousa and Klyza aptly observe, these “regulatory reform initiatives were undertaken in part because Congress had been unable to fix many problems in the regulatory system due to gridlock [y]et the progress of those initiatives was limited by the very gridlock that motivated them.”³¹⁰ In other words, a vicious circle exists between Congress abdicating its responsibility to improve, modernize, and reform the system and the potential for success of extra-congressional reform initiatives attempting to do just that. To the extent these reform experiments experienced poor or lackluster performance, Congress’ failure to support them through authorizing legislation was a significant contributing factor.³¹¹

Congress’ failure to support regulatory reform efforts over the years extends well beyond its refusal to enact authorizing legislation for such efforts. Congress has a lengthy history of drastically underfunding EPA, resulting in large disparities between the agency’s copious legislative mandates and its program and enforcement budgets.³¹² Thus, the agency has long been required to implement and pursue regulatory reform initiatives with few resources beyond the already-insufficient resources available to accommodate traditional regulatory responsibilities.³¹³

308. Case, *Regulatory Reform Agenda*, *supra* note 8, at 55; Sousa & Klyza, *supra* note 107, at 420; NAPA, *RESOLVING THE PARADOX*, *supra* note 134, at 212.

309. Charles C. Caldart & Nicholas A. Ashford, *Negotiation as a Means of Developing and Implementing Environmental and Occupational Safety and Health Policy*, 23 HARV. ENVTL. L. REV. 141, 183 (1999).

310. Sousa & Klyza, *supra* note 107, at 420.

311. See KLYZA & SOUSA, *supra* note 13, at 10 (stating that “the absence of congressional sanction has decisively limited the advance of next generation reforms”).

312. See Mintz, *supra* note 63, at 7–10 (acknowledging that EPA’s budget has been significantly capped by Congress despite “a considerable growth of the Agency’s responsibilities”); Andrews, *supra* note 2, at 255 (“There has been a large disparity between EPA’s mandates and its funding.”); Zellmer, *supra* note 3, at 2393–94 (noting that “the federal budget for EPA enforcement [has] been diminished”); Case, *Changing Corporate Behavior*, *supra* note 113, at 82 (stating that EPA is responsible for “overwhelming statutory mandates” despite its “grossly insufficient resources”).

313. Case, *Regulatory Reform Agenda*, *supra* note 8, at 57–58.

In a recent example, concern over scarce resources may have been a significant factor in the Obama administration EPA's decision to end the Performance Track and Climate Leaders programs.³¹⁴ Prior to these cancellations, agency staff expressed the view that voluntary environmental programs deprived traditional regulatory programs of necessary funds, so, in an environment of scarce resources, the choice should be made to shift available resources away from voluntary initiatives.³¹⁵ Critics had long expressed similar concern that voluntary programs distract focus and resources from governmental responsibility to ensure industry compliance with mandatory regulatory obligations.³¹⁶ These critics advocated that funding for voluntary programs should be redirected to managing traditional regulatory programs, especially in light of empirical studies suggesting that voluntary initiatives have limited environmental performance impacts.³¹⁷

Fiscal dilemmas that force agency decisions to end regulatory reform programs or, alternatively, to provide merely minimal commitment to such initiatives, are congressionally imposed obstacles to the potential success of reform efforts. Most certainly, Congress' failure to support environmental regulatory reform programs by refusing to provide adequate resources for ongoing initiatives does not improve the chances for these programs to produce useful results. Many critics argue that Congress must lead in creating a climate for innovation, experimentation, and risk-taking for regulatory reform efforts to have any realistic chance of success.³¹⁸ Starving regulatory reform efforts by imposing severe budget constraints on EPA only ensures that the reverse is true. Thus, the failure to fiscally support reform initiatives must be considered one of Congress' substantial contributions to the "lost generation" of environmental regulatory reform. Prospects for robust and meaningful results from experimentation with regulatory reform programs have been squandered by many years of congressional inaction.

The past few decades of congressional abdication have further ensured that these "next generation" environmental reform efforts

314. Coglianese & Nash, *Performance Track's Postmortem*, *supra* note 151, at 34.

315. *Id.*

316. Darnall & Sides, *supra* note 13, at 97.

317. *Id.*

318. Case, *Regulatory Reform Agenda*, *supra* note 8, at 55; *see also* KLYZA & SOUSA, *supra* note 13, at 14 (discussing the difficulty of achieving environmental regulatory reform "without congressional sanction" and that next generation reformers "needed the stamp of legitimacy on their experiments that only statutory language could provide").

operated under an almost exclusively voluntary framework. However, the use of voluntary approaches as the sole means to accomplish regulatory reform goals is inherently limited. Most notably, voluntary environmental regulatory initiatives have limited impacts because of their consistently low participation rates. Studies show that only a relatively small proportion of firms in the United States actually participate in voluntary environmental initiatives.³¹⁹ Early EPA public voluntary programs such as the 33/50 program, Project XL, and the Common Sense Initiative were widely criticized for low participation.³²⁰ More recent EPA voluntary programs, such as Climate Wise and the National Environmental Performance Track, were similarly criticized for low participation rates.³²¹ For example, although 500 industrial facilities participated in Performance Track at any given time, a recent study of the program noted that this number represented a tiny fraction of facilities potentially eligible to apply.³²²

Low participation in voluntary environmental programs is attributed to insufficient inducements to encourage industry participation and disincentives that cause firms to consider participation undesirable.³²³ For example, EPA's notoriously underperforming Climate Wise program has been strongly criticized for relatively weak participation incentives.³²⁴ Using an effective combination of "carrots and sticks" to attract increased participation may significantly improve a voluntary program's overall impact.³²⁵ Scholars consider a program's overall impact to be the product of the total number of participants and the effectiveness per participant.³²⁶ Minimal participation in EPA's voluntary programs strongly contributes to the perception that these programs have led to, at best,

319. Case, *Changing Corporate Behavior*, *supra* note 113, at 99. However, contrast low participation in EPA voluntary programs to participation in similar types of voluntary initiatives in the United Kingdom and Japan, which are noted to have had "almost universal participation." Morgenstern & Pizer, *Case Studies*, *supra* note 304, at 179.

320. Case, *HPV Challenge Program*, *supra* note 253, at 198.

321. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 733; Morgenstern & Pizer, *Case Studies*, *supra* note 304, at 179.

322. Coglianese & Nash, *Performance Track's Postmortem*, *supra* note 151, at 63; *see also* CARY COGLIANESE & JENNIFER NASH, BEYOND COMPLIANCE: BUSINESS DECISION MAKING AND THE US EPA'S PERFORMANCE TRACK PROGRAM 3 (2006); Case, *Changing Corporate Behavior*, *supra* note 113, at 99.

323. Case, *HPV Challenge Program*, *supra* note 253, at 198 & n.309; Morgenstern & Pizer, *Case Studies*, *supra* note 304, at 179; Mazurek, *supra* note 237, at 224.

324. Morgenstern & Pizer, *Case Studies*, *supra* note 304, at 179.

325. *Id.* at 181.

326. *Id.*

lackluster environmental results.³²⁷

Scholars further argue that the typical political origins of voluntary initiatives should diminish expectations that such programs can have substantial environmental performance impacts.³²⁸ Lyon and Maxwell assert that public voluntary programs “are generally weak tools adopted when the political will to take stronger action is missing.”³²⁹ That is, voluntary programs are utilized specifically because the agency lacks statutory authority to regulate more stringently.³³⁰ Because voluntary programs are often created out of political weakness rather than strength, there is little reason to anticipate that they will produce significant impacts.³³¹

Similarly, EPA’s reliance on voluntary regulatory initiatives can be attributed to a lack of “regulatory momentum” and government retreat from its traditional environmental policy leadership role as regulatory authority in the industrial sector.³³² In this regard, voluntary environmental initiatives are asserted to undercut governmental resolve to establish more substantial and progressive environmental protection schemes in the regulatory sphere.³³³ Indeed, environmentalists long believed that the George W. Bush administration “used voluntary programs as an excuse not to regulate and as an active tool to subvert regulations.”³³⁴

Scholars have debated the merits of employing voluntary versus mandatory approaches in environmental regulatory reform efforts.³³⁵

327. Case, *HPV Challenge Program*, *supra* note 253, at 198; *see also* Stewart, *New Generation*, *supra* note 119, at 132 (observing that “large numbers of non-mandated environmental improvements are unlikely to be pursued under . . . an incentive system” based solely on self-regulatory, voluntary environmental initiatives).

328. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 745.

329. Thomas P. Lyon & John W. Maxwell, *Public Voluntary Programmes for Mitigating Climate Change*, in *VOLUNTARY APPROACHES IN CLIMATE POLICY* 134–35 (Andrea Baranzini & Philippe Thalmann eds., 2004).

330. *Id.* at 134.

331. Lyon & Maxwell, *Voluntary Programs Reconsidered*, *supra* note 236, at 745.

332. Paul Muldoon & Ramani Nadarajah, *A Sober Second Look*, in *VOLUNTARY INITIATIVES: THE NEW POLITICS OF CORPORATE GREENING* 51, 53, 54 (Robert B. Gibson ed., 1999).

333. *Id.* at 59.

334. KLYZA & SOUSA, *supra* note 13, at 310.

335. Case, *Changing Corporate Behavior*, *supra* note 113, at 110; *see* Case, *Corporate Environmental Reporting*, *supra* note 103, at 439 (noting differing views regarding voluntary information disclosure initiatives and proponents of mandatory information disclosure mechanisms); Case, *Changing Corporate Behavior*, *supra* note 113, at 110–11 (advocating mandatory approaches to self-management regulatory reform strategies over voluntary initiatives); Timothy F. Malloy, *Regulation, Compliance and the Firm*, 76 *TEMP. L. REV.* 451,

Strategies that implement mandatory regulatory reform mechanisms would overcome many of the weaknesses of voluntary environmental initiatives. For example, mandatory regulatory strategies would overcome firms' disincentives against participating in voluntary programs and thus the consistent problem of extremely inadequate participation rates in such initiatives.³³⁶ Further, mandatory programs would allow specific targeting of industry populations or sectors for which certain alternative regulatory approaches are particularly well-suited or could address particularly challenging problems.³³⁷ However, to the extent that mandatory environmental regulatory reform mechanisms would produce superior environmental policy benefits over voluntary approaches, this cannot occur without legislation from Congress authorizing agencies to deploy mandatory alternative regulatory tools.³³⁸ To achieve significant, badly needed,

511–23 (2003) (comparing relative strengths and weaknesses of voluntary and mandatory EMS-based self-regulatory mechanisms); Josephine Maltby, *Setting Its Own Standards and Meeting Those Standards: Volunteerism Versus Regulation in Environmental Reporting*, 6 BUS. STRATEGY & THE ENV'T 83, 89–91 (1997) (discussing the dispute between supporters of voluntary approaches to environmental information disclosure and those favoring mandatory approaches); Sonja Gallhofer & Jim Haslam, *The Direction of Green Accounting Policy: Critical Reflections*, 10 ACCT., AUDITING & ACCOUNTABILITY J. 148, 149–65 (1997) (contrasting support for voluntary approaches to environmental information disclosure to a critical theoretical justification for a mandatory regulatory approach).

336. See Case, *Changing Corporate Behavior*, *supra* note 113, at 110–11 (“[A] mandatory approach to EMS implementation in certain circumstances may offer advantages over voluntary programs.”); Case, *Corporate Environmental Reporting*, *supra* note 103, at 439–42 (describing how mandatory programs would overcome the disincentives commonly associated with voluntary programs).

337. See Wendy E. Wagner, *Imagining Corporate Sustainability as a Public Good Rather Than a Corporate Bad*, 46 WAKE FOREST L. REV. 561, 562, 579–88 (2011) (advocating mandatory information disclosure as an alternative regulatory approach under an information as a public good analysis); Joey Tsu-Yi Chen, *Green Sox for Investors: Requiring Companies to Disclose Risks Related to Climate Change*, 5 J. BUS. & TECH. L. 325, 354–56 (2010) (advocating a mandatory approach to informational regulation in the context of requiring disclosure of corporate data relative to climate risks); Case, *Changing Corporate Behavior*, *supra* note 113, at 110 (advocating a mandatory approach in the context of self-management regulatory strategies involving implementation of corporate environmental management systems); Case, *Corporate Environmental Reporting*, *supra* note 103, at 439–42 (advocating a mandatory, rather than voluntary approach to informational regulatory strategies in the context of mandatory corporate environmental reporting requirements); Andrew Schatz, *Regulating Greenhouse Gases by Mandatory Information Disclosure*, 26 VA. ENVTL. L.J. 335, 392–93 (2008) (arguing for mandatory information disclosure programs as a regulatory approach for achieving reductions of greenhouse gas emissions).

338. See Andrews, *supra* note 2, at 255–56 (“EPA’s most serious unsolved problems and deficiencies are congressionally imposed: they cannot be solved without congressional will to pursue a greener economy, both by deploying market-oriented regulatory tools and removing . . . incentives that continue to protect environmentally damaging--and economically anachronistic--practices of an earlier era.”).

wide-reaching environmental policy reform using innovative and flexible tools—such as market-based incentives and self-regulatory mechanisms—*statutory* authority is needed.³³⁹ This would necessarily require an end to decades of congressional abdication regarding environment policy.

VI. CONCLUSION

Existing political gridlock in Congress suggests that comprehensive, legislative reforms of the federal environmental regulatory system are, to say the least, wildly improbable.³⁴⁰ The forecasts of commentators for a potential end to gridlock and political polarization in Congress, particularly on environmental issues, are decidedly negative.³⁴¹ The 2010 congressional mid-term elections during President Obama's first term ushered in a period of extreme partisanship that finds the major political parties "more polarized than they have been in 120 years."³⁴² The 112th Congress (2011-12) was characterized at the time as "the most dysfunctional Congress of the past forty years."³⁴³ Legislative productivity in the 112th Congress was also at its lowest point in modern history, and the 113th Congress (2013-14) is on track to accomplish even less.³⁴⁴

Political scientists and other policy analysts examining the root causes of the growing dysfunction in Congress place considerable, but certainly not all, of the blame on conservative Republicans and the

339. *Id.* at 258; *see also* KLYZA & SOUSA, *supra* note 13, at 14 ("[W]ithout new statutes . . . it will be difficult to push ahead with even the tinkering and pragmatic adjustment that the next generation of environmental policy requires.").

340. *See* Andrews, *supra* note 2, at 255 ("For the present, it is clear that any hope of significant environmental policy reform in Congress continues to be held hostage to bitter partisan gridlock.").

341. *See id.*; Zellmer, *supra* note 3, at 2325, 2366–71 (stating that "[t]he bitterly partisan nature of environmental issues in Congress today suggests that comprehensive, thoughtful reforms tailored to the problems faced by modern society are unlikely"); Aagaard, *supra* note 5, at 1282 (stating that "the current political context is highly inhospitable to the enactment of major environmental lawmaking").

342. KLYZA & SOUSA, *supra* note 13, at 285–86.

343. Zellmer, *supra* note 3, at 2370; *see also* Sarah Binder, *Polarized We Govern?* (Center for Effective Public Management at Brookings Working Paper, May 2014), at 2 (copy on file with author) ("At the close of the 112th Congress in early January 2013, numerous Washington observers charged that the 112th Congress was the most dysfunctional Congress ever.").

344. Zellmer, *supra* note 3, at 2368; Drew Desilver, *Congress Continues its Streak of Passing Few Significant Laws*, PEW RESEARCH CENTER (July 31, 2014), available at <http://www.pewresearch.org/fact-tank/2014/07/31/congress-continues-its-streak-of-passing-few-significant-laws/>.

Tea Party's rise.³⁴⁵ Simply because environmental gridlock and legislative stalemates currently prevail in Congress does not mean that this long-term status quo will inevitably continue. A future shift in Congress toward a unified Republican government could very well herald a return to the divisive battles over federal environmental regulation that were prevalent in the early 1980s and mid-1990s. In that event, a drive to dismantle substantial portions of the regulatory system, rather than effect positive-minded reform of federal environmental regulation, would be the most likely battleground.³⁴⁶

Despite this gloomy outlook, commentators nonetheless express optimism that progress on currently unregulated or under-regulated environmental protection problems can continue to be made without Congress, solely by way of continuing executive branch initiatives.³⁴⁷ Sandra Zellmer identifies a number of possibilities for the executive branch to act on environmental issues despite congressional unwillingness to institute legislative reform, such as “invigorating citizens’ petitions for rulemaking; placing greater reliance on executive orders that prioritize public health and environmental protection; and stepping up environmental enforcement efforts.”³⁴⁸ Pursuing such “second best” strategies would allow executive branch policymakers and environmental advocates to make at least limited progress while awaiting the perhaps unattainable dream of the “first best” option of comprehensive congressional reforms.³⁴⁹

Such executive branch initiatives are indeed worthwhile avenues

345. See KLYZA & SOUSA, *supra* note 13, at 285–87 (noting that “Congressional polarization has been ‘asymmetric,’ driven more by the sharp movement of Republicans to the right than Democratic movement to the left, and it has been accompanied by an erosion of congressional norms of civility, breathtaking forms of brinkmanship, . . . and unprecedented uses of the Senate filibuster to block action by the majority”); Zellmer, *supra* note 3, at 2369–70 (stating that “the inability to get things done is a reflection of divided government”). See generally Morris P. Fiorina, *America’s Polarized Politics: Causes and Solutions*, 11 PERSP. ON POL. 852 (2013); Justin Grimmer, *Appropriators not Position Takers: The Distorting Effects of Electoral Incentives on Congressional Representation*, 57 AM. J. OF POL. SCI. 624 (2013); Ashley E. Jochim & Bryan D. Jones, *Issue Politics in a Polarized Congress*, 66 POL. RES. Q. 352 (2012).

346. See KLYZA & SOUSA, *supra* note 13, at 316–17 (“[I]t is possible that under a unified Republican government, a rollback of basic environmental laws . . . could occur.”); Zellmer, *supra* note 3, at 2325, 2379–80 (noting that, for example, in the 112th Congress, dominated by a Republican majority, “the top priorities of the House Energy and Commerce Committee included rolling back the EPA’s ‘regulatory choke hold’”).

347. See Zellmer, *supra* note 3, at 2384, 2398 (“While Congress has been neglectful, the federal agencies have taken up the slack in some instances, crafting more innovative and, in some cases, more progressive solutions than might be expected in Congress.”).

348. *Id.* at 2398.

349. *Id.*

of pursuit, but even aggressive and progressive action in this regard has inherent limitations given how intensely polarized the current political climate remains.³⁵⁰ Pursuing improvements and reforms solely through executive branch initiatives, as has been the case since the 1990s, is likely to continue to produce, at best, extremely marginal benefits. Executive branch policymaking is preferable to no action at all, but it will also indefinitely extend the “lost generation” of environmental regulatory reform that has persisted for the last 25 years.

For more substantively meaningful and effective environmental regulatory reform to occur, congressional abdication must end. Congress should again take up the primary role in environmental policymaking that it occupied during the 1970s and, somewhat more sporadically, in the 1980s.³⁵¹ As the primary policymaker, Congress must accept the challenge repeatedly laid out during the past two decades by reform advocates to find the best tools to meet each environmental challenge.³⁵² For some problems, the best alternative will be to continue using traditional environmental regulatory approaches.³⁵³ For others, “next generation” alternative regulatory mechanisms will be a more efficient, effective, and desirable strategy.³⁵⁴

Although it seems naïve to hold out such hope, what seems necessary is another “republican moment” of political consensus and congressional will to improve and modernize the environmental regulatory system.³⁵⁵ From a political standpoint, environmental regulatory reform accomplished through legislative action would have more legitimacy than unilateral executive branch initiatives.³⁵⁶

350. See KLYZA & SOUSA, *supra* note 13, at 315–16 (noting that “significant change is unlikely” due to significant political polarization).

351. See Jeffrey Rudd, *J.B. Ruhl’s “Law-and-Society System”: Burying Norms and Democracy Under Complexity Theory’s Foundation*, 29 WM. & MARY ENVTL. L. & POL’Y REV. 551, 556 (2005) [hereinafter Rudd] (calling on Congress to “become more proactive in environmental matters critical to advancing the public’s interests”).

352. Coglianese, *Managerial Turn*, *supra* note 214, at 73.

353. *Id.*

354. *Id.* at 73–74; Andrews, *supra* note 2, at 225 (“Both the economy and the environment could be better served by policy innovations that would promote more integrated solutions, more self-enforcing incentives, and more rigorous, yet more stable, environmental performance expectations.”).

355. See Lazarus, *supra* note 59, at 999 (defining “republican moment” as an “outburst[] of democratic participation and ideological politics”) (citations omitted).

356. See KLYZA & SOUSA, *supra* note 13, at 31 (“[A]rguably the legislative process provides greater accountability and holds greater legitimacy than policymaking on the pathways that have become so crucial in environmental policymaking.”); Rudd, *supra* note 351, at 557

Legislative action would also have a far greater probability of achieving meaningful environmental protection gains at the level envisioned by “next generation” reform advocates. Congress’ abdication of responsibility for the environmental regulatory system over the past quarter of a century is a serious threat to critical national interests in appropriately addressing a myriad of ongoing environmental protection challenges.

(“Democratic principles should guide efforts to improve the quality of the environmental regulatory system and its decision-making organizations.”); Harris, *supra* note 88, at 374 (“[L]egislative action is a trustworthier, democratic process; unilateral executive action is not.”).