The Emergence of Private Environmental Governance

Michael P. Vandenbergh

Michael P. Vandenbergh is the David Daniels Allen Distinguished Chair in Law; Director, Climate Change Research Network; and Co-Director, Energy, Environment and Land Use Program, Vanderbilt University Law School.

Summary

Environmental law has long been viewed as a public law field, with policymakers and practitioners conditioned to look to government for solutions to environmental problems, but private governance is playing an increasingly important role. Will private environmental governance become a mainstay of environmental law and policy, or is it another passing fad wrongly heralded as the future of the field? Several issues will determine the answer to this question and the early evidence suggests that although private environmental governance is not a substitute for public governance, it is a discrete field worthy of attention by policymakers, practitioners, and theorists.

common pattern in environmental law and policy is for a policymaker or academician to identify a concept, often based on an emerging trend, and to argue that it represents the future direction of the field. Examples over the last several decades include market mechanisms, pollution prevention, adaptive management, commonsense environmentalism, new governance, informational regulation, free market environmentalism, civic environmentalism, place-based environmentalism, sustainable development, and others. Some of these have become an important part of the theory and practice of environmental law and policy, but many have not. If we look back 20 years from now, will private environmental governance be as much a part of environmental law and policy as market mechanisms, or will it have faded into the woodwork?

At the risk of falling into the trap of over-claiming and false paradigm-creation, I have argued that private environmental governance is an increasingly important aspect of environmental law and policy, that it is a discrete field worthy of attention by policymakers, practitioners, and theorists, and that it offers new responses to some of the most intractable remaining environmental problems. The argument is not that private environmental governance is entirely new or is a complete substitute for public governance. Some forms of private environmental governance predate public governance, but many new forms have arisen in the last two decades. In addition, private environmental governance cannot perform all of the functions of public governance, but it appears to be filling gaps and complementing public governance in some cases and competing with it in others.

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Michael P. Vandenbergh, Private Environmental Governance, 99 CORNELL L. Rev. 129, 162-99 (2013).

One way to examine the value of conceptualizing private environmental governance as a discrete field is to read almost any leading article or text on environmental law and policy and to ask whether the unspoken assumption is that the actor is government and the relevant action is some form of public statute or regulation, or a court decision interpreting the development and implementation of a statute or regulation.2 This model dominates much of the thinking in the field, but the emerging importance of private governance is suggested by the fact that 14% of the temperate forests and 7% of the fisheries around the world are regulated by private certification systems,³ that more money is spent on private environmental inspections than the annual budget of the U.S. Environmental Protection Agency (EPA) enforcement office, that corporate supplychain requirements are driving substantial amounts of carbon emissions reductions without regard to international boundaries, and that corporate policies by companies such as Wal-Mart and Target are becoming the de facto regulatory floor for the use of many toxic chemicals.4

In this Article, I briefly examine the answers to four questions that will play a large role in determining whether private environmental governance becomes a mainstay of environmental law and policy, or just another flavor-of-the-day alongside other pronouncements about the field: (1) Is private environmental governance a coherent, discrete concept?; (2) To what extent does private environmental governance affect environmental behavior and environmental quality?; (3) To what extent does private environmental governance affect public environmental governance?; and (4) Does private environmental governance offer new solutions to environmental problems?

I. Is Private Environmental Governance a Coherent, Discrete Concept?

Private environmental governance occurs when nongovernmental entities take actions that achieve traditionally governmental ends. These ends include providing public goods, managing the exploitation of common pool resources, reducing negative externalities, and more justly distributing environmental amenities. The actions taken by these nongovernmental entities often include many of the

traditional functions of government, including standardsetting, implementation, monitoring, enforcement, and adjudication.⁵ Governmental bodies may promote or discourage the formation of private governance organizations and private standards, but they do not control the content of the private standards or the activities of the organizations that implement them.⁶

The most obvious examples of private governance organizations that meet this definition are collective standardsetting bodies such as the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC), both of which seek to manage natural resources. Using stakeholder groups and a central administrative body, these organizations set and enforce standards, certify compliance, and provide for dispute resolution. The ends and means both closely resemble those typically assigned to government. Although both operate with little or no government involvement, government regulation remains in the background (e.g., compliance with United Nations (U.N.) Food and Agriculture Organization standards is incorporated into the MSC standards). A wide range of other initiatives fit easily into this definition, including the Equator Principles (standards for global project finance lending similar to the National Environmental Policy Act (NEPA)⁷), the Carbon Principles (greenhouse gas disclosure standards for banks that lend to electric utilities), and Green Seal (environmental product disclosure standards).8

The private aspect of these efforts is important because private organizations can develop and implement standards when government cannot, although it also means that these organizations cannot draw on the coercive powers of government and are not directly subject to the accountability mechanisms used to constrain government. On the sur-

^{2.} Id. at 131.

^{3.} See Steering Comm. of State-of-Knowledge Assessment of Standards & Certification, Toward Sustainability: The Roles and Limitations of Certification 9 (2012) [hereinafter Toward Sustainability] (noting certification of 9% of productive forests and 7% of global landings of wild fish caught for human consumption); Introduction to Certification, Paper Life Cycle, http://thepaperlifecycle.org/forests/in-depth/introduction-to-certification/ (last visited Dec. 26, 2013) (noting certification of 14% of temperate forests).

^{4.} Vandenbergh, supra note 1, at 136; see, e.g., Upcoming Lautenberg Bill Could Be Key Test for TSCA Reform This Congress, Inside EPA Wkly. Rep., Apr. 1, 2011, at 6 (quoting Ernie Rosenberg of the American Cleaning Institute for the proposition that "[t]he loss of public confidence [in the public regulatory system means] we're going to increasingly have retailers that are regulators, like Wal-Mart and Target"); 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, 7, 10-11 (Cary Coglianese & Jennifer Nash eds., 2006).

Vandenbergh, supra note 1, at 194. Several definitions of private governance have been offered in the legal, political science, and international relations literatures. See, e.g., Tracey M. Roberts, Innovations in Governance: A Functional Typology of Private Governance Institutions, 22 Duke Envil. L. & Pol'y F. 67, 69 (2011) (defining private governance to include the "rules and structures by which individuals, communities, firms, civic organizations, and other entities govern their interests without the direct involvement of the state or its subsidiaries"); Kenneth W. Abbott & Duncan Snidal, The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State, in The Politics of Global Regulation 44, 46 (Walter Mattli & Ngaire Woods eds., 2009); Steven Bernstein & Benjamin Cashore, Can Non-State Global Governance Be Legitimate? An Analytical Framework, 1 Reg. & Governance 347, 349-50 (2007) (identifying five key features of non-state market-driven governance systems); Rodney Bruce Hall & Thomas J. Biersteker, The Emergence of Private Authority in the International System, in The Emergence of Private Authority in Global Gover-NANCE 3, 4 (Rodney Bruce Hall & Thomas J. Biersteker eds., 2002) (noting governmental functions undertaken by non-state actors).

^{6.} Of course, some level of governmental involvement will induce legal institutions to treat a private governance entity as a public entity. See Mark A. Cohen & Michael P. Vandenbergh, The Potential Role of Carbon Labeling in a Green Economy, 34 Energy Econ. S53, S60 (2012) (discussing the treatment of private systems by the international trade regime).

^{7. 42} U.S.C. \$\$4321-4370h, ELR STAT. NEPA \$\$2-209.

^{8.} See Vandenbergh, supra note 1, at 151, 159-60; About Green Seal, Green Seal, http://www.greenseal.org/AboutGreenSeal.aspx (last visited Dec. 17, 2013)

By private, I simply mean nongovernmental. The nuances of the publicprivate definition are beyond the scope of this Article. For a discussion, see Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029, 2037-40 (2005); Vandenbergh, *supra* note 1, at 154.

face, many market mechanisms such as the trading of acid rain precursors might seem to be obvious candidates for inclusion in the definition of private environmental governance, but these mechanisms only exist if government creates the entitlement and the requirement not to emit in the absence of the entitlement. The heavy involvement of government in the creation and implementation of these programs means that political support is necessary for the success of the programs and suggests that they are better thought of as a form of public governance that creates and harnesses private market behavior, not as a form of direct private environmental governance.

As with any definition, difficult questions arise at the boundaries. The trickiest questions arise with topics such as common-law torts and standard commercial transactions. Should a common-law tort action that reduces a negative environmental externality be treated as a form of private governance? Common-law nuisance or trespass actions often occur between private parties and induce individuals and firms to reduce environmental externalities or change the way common pool resources are managed. 10 At the same time, common-law nuisance claims have many public features. They are often incorporated explicitly into state statutes, public courts typically adjudicate tort cases, and public officials enforce court orders, so government often plays an important role. I view common-law tort actions as falling just outside the scope of private environmental governance. In addition, given the long history and the extensive literature on the environmental implications of tort law, I find it more productive to focus on other areas, such as private standards and certification systems and supplychain contracting requirements.

The line between private environmental governance and simple market behavior is also unclear. A fundamental question here is whether intent or effects matter: if a corporate policy or contract provision is simply intended to increase profits but induces behavior that reduces human health or environmental risks from a supplier's operations, should it be considered a form of private governance, or should some form of pro-environmental intent be required? For example, when GE or Hewlett-Packard prohibits suppliers from using certain toxics that are not prohibited by law, is it engaging in private environmental governance or simply engaging in private market behavior? When a bank conducts an environmental due diligence investigation of a potential corporate borrower and prevents the borrower from using underground storage tanks even though no applicable public law prevents the use of these tanks, is the bank engaging in private environmental governance?

A risk is that any transaction that reduces environmental harms, even if entirely inadvertently, could be described as a form of private environmental governance, and that could dilute the value of the term. For instance, a bank that prohibits the use of underground storage tanks may be seeking simply to reduce repayment risks under public environmental laws. Similarly, a corporate buyer may make price demands in a supply contract to increase profits, but the price demands may induce the supplier to increase the efficiency of producing a good, leading to reductions in energy use, toxics emissions, and carbon emissions. At the far end of the spectrum, any market activity that increases profits might be social welfare-enhancing on some level, yet a private governance definition that includes all such market activity would be of little use.

If we focus on intent as a way to narrow the definition, we might ask whether the managers of any of these firms intended to achieve some commercial end or to improve human health or environmental quality. Doing so will exclude garden variety market activities that are so far afield that they are of little interest to public or private environmental policymakers. Although focusing on intent is a reasonable approach, it suffers from the opposite problem: Many—perhaps most—corporate activities that appear to depart from the standard profit-maximizing behavior of firms, such as participation in private certification and standards systems or imposition of private environmental contracting requirements on suppliers, may be intended to increase profits, not to protect the environment or to manage a common pool resource. Activities that appear to be environmentally beneficial may just be "greenwashing," but many corporate activities that have beneficial environmental effects also increase profits. The profit goal may not be achieved directly by offering lower priced or higher quality goods, but indirectly by responding to social license pressures from nongovernmental organizations (NGOs), consumers, lenders, shareholders, employees, or others.¹¹ These social license pressures, whether in the form of NGO-led consumer boycotts, supply-chain pressure from corporate buyers, or pressure from socially responsible investors, may put revenue or access to capital at risk. In other words, firms have a profit motive that is derived from the environmental preferences of influential stakeholders. David Baron has described this as the difference between corporate social responsibility and corporate social performance—the difference between sacrificing profits for social goals and achieving profits by responding to social pressures.¹²

Rather than focusing on intent, I take a functional or ends-based approach and ask whether a commercial activity has the potential to achieve the ends that governments often seek to achieve: improvements in environmental behavior or environmental quality. Although this approach casts a broad net, it is a valuable starting point for study-

^{10.} Some have focused on the role that tort and property regimes can play as a substitute for public governance (see Terry L. Anderson & Donald R. Leal, Free Market Environmentalism (1991)), but my argument is that common-law torts and property regimes, even when combined with the wide range of other new private governance initiatives, are not a substitute for public environmental governance in most cases. For an interesting application of the insights from the property rules-liability rules literature to private governance, see Tracey M. Roberts, The Rise of Rule Four Institutions: Voluntary Standards, Certification, and Labeling Systems, 40 Ecology L.Q. 107 (2013).

Neil Gunningham et al., Social License and Environmental Protection: Why Businesses Go Beyond Compliance, 29 L. & Soc. Inquiry 307, 323-24, 334 (2004).

David P. Baron, Private Politics, Corporate Social Responsibility, and Integrated Strategy, 10 J. Econ. & Mgmt. Strategy 7, 7-45 (2001).

ing the public implications of private market activities and for identifying new ones. For instance, the environmental requirements in supply-chain contracts have the potential to influence the carbon emissions of suppliers, and understanding this activity as a form of governance can lead advocacy groups and government policymakers to view it in a new light. If these environmental requirements are viewed simply as a form of market behavior, scholars may overlook their implications for achieving environmental goals. Managers of universities, government agencies, and other institutions may miss the importance of procurement decisions. Advocacy groups also may not appreciate the value of allocating resources to this effort as opposed to more traditional government lobbying and litigation. In doing so, they may miss the chance not only to improve the environmental performance of large firms, but also to reach small firms and firms located across national boundaries.¹³

In my view, many of the same reasons argue for treating the environmental activities associated with commercial lending, leasing, mergers and acquisitions, and other types of transactions as a form of private environmental governance. These activities can be viewed simply as market behavior, and the environmental aspects of these transactions can be thought of as only the second-order effects of public environmental laws. This is a reasonable approach, and these types of commercial transactions are not essential to my argument that private environmental governance is playing an increasingly large role in environmental protection.14 If we view the environmental investigations and the enforcement of environmental terms in commercial agreements as a form of private environmental governance, however, we may be more likely to examine what effects these terms and activities have on environmental quality and to ask how public and private actors can improve these effects. In addition, although the primary driver for many of these activities may be concerns about Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)¹⁵ liability, or the financial implications of compliance with the regulatory requirements of statutes such as the Clean Air Act,16 the Clean Water Act,17 or the Resource Conservation and Recovery Act, 18 once the investigation, drafting, and enforcement processes are in place, these activities may have effects that far exceed any envisioned by the drafters of the legislative and regulatory language. The due diligence process also may provide a forum in which private standards and other private influences are identified and addressed by corporate managers. Understanding the treatment of environmental issues in commercial transactions as a form of private governance thus may increase the chance that public officials will account for the private second-order effects of public environmental laws,

II. To What Extent Does Private **Environmental Governance Affect Environmental Behavior and Environmental Quality?**

Whether private environmental governance is worthy of substantial attention ultimately will turn on its effects on the environmental behavior of individuals and organizations (e.g., reductions in factory smokestack emissions) and its effects on environmental quality (e.g., changes in ambient air concentrations).20 Cost-effectiveness is also an important consideration, but is beyond the scope of this Article. A deeper research base is available on the environmental effects of older private governance activities (e.g., certification systems for forestry) than on newer systems (e.g., commodities roundtables). In addition, more research is available on the impacts of private governance on the environmental behavior of firms than on changes in environmental quality. I consider the direct effects of private governance on environmental behavior and environmental quality here, and I turn to the relationship between private and public governance in the next section.

Environmental Behavior

Rigorous empirical studies and a large amount of anecdotal information suggest that some private governance activities are associated with substantial changes in corporate environmental behavior. A recent survey of the literature on private sustainability certification systems for agriculture, aquaculture, fisheries, and forestry identified several dozen large-sample-size quantitative and qualitative studies, hundreds of case studies, and a few peer-reviewed, largescale evaluations of these systems.²¹ The study concluded that certification systems are often designed to advance the adoption of new environmental practices rather than to change environmental conditions or outcomes. Similarly, some certification systems seek to ensure that certified activities are environmentally appropriate, but many certify only that management processes have been followed.²² Nevertheless, the study concluded that standards, practices, and performance expectations established in the context of voluntary systems have become the norm for many producers and consumers in some markets. In some cases, the standards were later institutionalized in public

may induce advocacy groups and firm managers to focus greater attention on these activities as avenues to achieve environmental ends, and may induce scholars to study the effects of these activities.¹⁹

^{13.} Michael P. Vandenbergh & Mark A. Cohen, Climate Change Governance: Boundaries and Leakage, N.Y.U. Envtl. L.J. 221, 226-28, 290-92 (2010).

^{14.} I thank William Pedersen for offering this perspective.

^{15. 42} U.S.C. §\$9601-9675, ELR STAT. CERCLA §\$101-405.

^{16. 42} U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618.

 ³³ U.S.C. §§1251-1387, ELR STAT. FWPCA §§101-607.
 42 U.S.C. §§6901-6992k, ELR STAT. RCRA §§1001-11011.

^{19.} See Vandenbergh, supra note 9, at 2068-96.

^{20.} Vandenbergh, supra note 1, at 188-95.

^{21.} See Toward Sustainability, supra note 3, at ES-1.

^{22.} See Errol E. Meidinger, Environmental Certification Programs and U.S. Environmental Law: Closer Than You May Think, 31 ELR 10162, 10163-64 (Feb. 2001).

regulations (e.g., green building codes).²³ The study also concluded that despite the data limitations and difficulties of establishing causation, certification standards have had extensive influence on the adoption of sustainability practices by firms and farms. For example, a number of studies have found that foresters working in forests managed under the FSC program engage in different practices from those in noncertified forests.²⁴ Similarly, a 2006 study concluded that MSC-certified fisheries demonstrated improved management practices and information disclosures.²⁵

Studies also have demonstrated that many firms have been induced to adopt environmental management systems despite the absence of a public regulatory requirement to do so, and many firms have required their suppliers to adopt these systems. ²⁶ The most widespread collectively set environmental management standard, ISO 14001, does not require changes in environmental emissions but requires participating firms to adopt a number of environmental practices. Hundreds of thousands of firms have announced that they comply with ISO 14001, and studies suggest that firms that are in compliance change some environmental practices. ²⁷ The effect of ISO 14001 and other environmental management standards on the environmental performance of firms is less clear. ²⁸

In addition, many types of commercial transactions affect corporate behavior in ways that are likely to influence the environmental performance of firms, but empirical studies have yet to be conducted on the effects of these transactions.²⁹ Empirical studies have demonstrated a remarkable

- 23. The study did not find evidence of private standards locking in suboptimal standards. See Toward Sustainability, supra note 3, at ES-12.
- 24. See id. at 62.
- 25. See id. at 61, app. E.
- 26. See Coglianese & Nash, supra note 4, at 9-12; Aseem Prakash & Matthew Potoski, Investing Up: FDI and the Cross-National Diffusion of ISO 14001, 51 INT'L STUD. Q. 723 (2007) (examining relationship of foreign direct investment and firm adoption of environmental management standards); David A. Wirth, The International Organization for Standardization: Private Voluntary Standards as Swords and Shields, 36 B.C. ENVTL. AFF. L. REV. 79, 95 (2009); INT'L STANDARDS ORG., THE ISO SURVEY OF MANAGEMENT SYSTEM STANDARD CERTIFICATIONS—2011, at 1 (2012), available at http://www.iso.org/iso/iso_survey2011_executive-summary.pdf; ISO 14000—Environmental Management, INT'L STANDARDS ORG., http://www.iso.org/iso/home/standards/management-standards/iso14000.htm (last visited Dec. 16, 2013)
- See Richard N.L. Andrews et al., Environmental Management Under Pressure: How Do Mandates Affect Performance?, in Leveraging the Private Sector: Management-Based Strategies for Improving Environmental Performance 111, 117-18 (Cary Coglianese & Jennifer Nash eds., 2006).
- 28. See Cary Coglianese, The Managerial Turn in Environmental Policy, 17 N.Y.U. ENVTL. L.J. 54, 71 (2008) (noting that "empirical research indicates that ISO-certified EMSs are associated with at least modest compliance improvements"); Petra Christmann & Glen Taylor, Globalization and the Environment: Determinants of Firm Self-Regulation in China, 32 J. INT'L Bus. Stud. 439, 450-52 (2001) (examining correlation between environmental management system adoption and environmental performance of firms in China).
- 29. One area of promising research is the connection between private transactions and the disclosure of information about toxic releases required by the Toxic Release Inventory (TRI) program. See Shameek Konar & Mark A. Cohen, Information as Regulation: The Effect of Community Right to Know Laws on Toxic Emissions, 32 J. ENVTL. ECON. & MGMT. 109, 109 (1997). See also Wendy E. Wagner, Imagining Corporate Sustainability as a Public Good Rather Than a Corporate Bad, 46 WAKE FOREST L. REV. 561, 562 (2011) (proposing stimulation of private environmental governance by

amount of activity in this area, so if environmental effects do occur, they are likely to be widespread. For example, a study concluded that more than one-half of the commercial loan agreements, leases, and merger and acquisition agreements filed with the Securities and Exchange Commission by publicly traded firms in 2001 included environmental provisions.³⁰ The \$500 million annual expenditure on private environmental investigations discussed at the outset is just one indication of the potential influence of these transactions.³¹ As to supply-chain contracts, a 2007 study of roughly 80 firms in eight sectors concluded that more than one-half of the firms impose private environmental requirements on their suppliers.³² Å 2012 study of over 1,000 firms reported that roughly 40% impose such requirements.³³ Not surprisingly, almost all of the top 50 private law firms in the United States have lawyers engaged in the environmental transactional practice area.³⁴ Efforts to reduce liabilities under public environmental laws (e.g., CERCLA) drive much of the environmental activities associated with commercial transactions, but the transactional activity adds a layer of private standards, monitoring, and enforcement to the public environmental law regime.³⁵ The environmental investigations conducted in connection with commercial transactions also are driven in some cases by concerns about compliance with private standards that have little or no connection with public law requirements. For instance, the vast majority of all banks involved in global project finance lending require borrowers to comply with the Equator Principles, which require private environmental assessments of proposed projects, and many banks have signed on to the Carbon Principles, which require electric utilities to disclose and account for carbon emissions in the due diligence process even in the absence of regulatory requirements.36

Another indication of the potential effect of private governance on firm environmental behavior is the amount that firms spend on private audits to achieve or maintain certifications under private environmental certification systems.

- 32. See Michael P. Vandenbergh, The New Wal-Mart Effect: The Role of Private Contracting in Global Governance, 54 UCLA L. Rev. 913, 916-17 (2007).
- See Thomas Singer & Matteo Tonello, The Conference Bd., Sustainability Practices: 2012 Edition 101 (2012).
- 34. See Vandenbergh, supra note 9, at 2067-68.
- 35. As Richard Lazarus noted as early as 1994, free market forces are "one of the most significant enforcement devices" and "[n]ow every time someone thinks about buying a business or not buying a business, they are concerned about the environmental liabilities affiliated with it" so "[t]hat means everyone starts cleaning up because they have to worry about how it is going to affect their market price." See Symposium: The Environment and the Law, Panel II: Public Versus Private Environmental Regulation, 21 Ecology L.Q. 431, 468 (1994) (discussion by Richard Lazarus).
- 36. Vandenbergh, supra note 1, at 159-60.

government disclosure of corporate sustainability data). This approach harnesses private governance, but it requires government to adopt new statutory or regulatory requirements.

^{30.} See Vandenburgh, supra note 9, at 2045 n.68..

^{31.} See Michael B. Gerrard, A Proposal to Use Transactions to Leverage Environmental Disclosure and Compliance, in Moving to Markets in Environmental Regulation: Lessons From Twenty Years of Experience 420, 422 (Jody Freeman & Charles D. Kolstad eds., 2007) (noting the amount spent on Phase I environmental assessments); Vandenbergh, supra note 9, at 2049 (noting that the \$500 million figure is larger than EPA's annual enforcement budget).

The total expended on this type of private environmental enforcement is unclear, but there are indications that the amount is large. For instance, although environmental audits comprise only a part of the total, one study concluded that corporate firms spend tens of millions of dollars each year on the market for private assurance services.³⁷

В. **Environmental Quality**

The impacts of private governance activities on environmental quality are less clear, but some initial conclusions emerge from the literature.³⁸ At the outset, although few private governance activities have been shown to cause specific changes in environmental quality, the same problem occurs for public environmental governance, and it is important not to hold private governance to a different standard. We understand a great deal about the relationship between government enforcement activities and the compliance rates and emissions of regulated firms, but less about the relationship between public governance and environmental quality.³⁹ Government programs in some specific areas have been tied to environmental quality improvements, but for many government programs, it is difficult to tie a particular program to a measured change in local or regional environmental conditions, even though impacts are very plausible.⁴⁰

If private governance affects firm environmental behavior, however, it is reasonable to expect that studies will identify a connection between the programs and effects on environmental quality at some point. The recent comprehensive review of the literature on certification systems noted that empirical studies have identified localized impacts, but the review identified few rigorous, experimentally designed and controlled studies of long-term, largescale (e.g., watersheds) impacts of certification systems. The study concluded that the research base is insufficient to determine the cumulative effects on ecosystems.⁴¹ As to forests, the study concluded that 9% of all productive forests are subject to FSC standards and that studies comparing forests managed under the FSC program to other forests have found changes in forest practices, but have not detected changes in the ecosystem health of the certified forests.⁴² Similarly, 7% of all fish caught for human consumption are from fisheries subject to the MSC standards, and a recent study commissioned by the MSC of more than 20 MSC-certified fisheries found substantial positive effects on stock status (the number of fish), 43 but the MSC system has been less successful in maintaining overall biodiversity conservation and reducing bycatch. 44

Even less is known about the environmental quality effects of other forms of private environmental governance. Private environmental management standards such as ISO 14001 do not require the achievement of specific environmental outcomes or levels of regulatory compliance, but in some cases empirical studies have found a correlation between environmental management standards and improved environmental performance. 45 Some private programs only require emissions disclosure, such as the Global Reporting Initiative and the Carbon Disclosure Project (CDP), and little or no research is available on the environmental quality effects of these programs.⁴⁶

Finally, although environmental requirements are common in supply-chain contracts and other commercial transactions,47 almost no literature examines the effects on firm behavior, much less environmental quality. This type of private governance activity is conducted in some cases by parties that have incentives to act in ways that will increase environmental harms (e.g., corporate transactions that place environmental liabilities in separate corporate entities to avoid Superfund liability), but in many cases, the parties have incentives to act in ways that will improve environmental quality (e.g., environmental diligence that

^{37.} See Margaret M. Blair et al., The New Role for Assurance Services in Global Commere, 33 J. Corp. L. 325, 329 (2008).

See Toward Sustainability, supra note 3, at 45-56.

^{39.} See, e.g., Wesley A. Magat & W. Kip Viscusi, Effectiveness of the EPA's Regulatory Enforcement: The Case of Industrial Effluent Standards, 33 J. L. & Econ. 331 (1990) (examining corporate CWA compliance rates). The adoption of the environmental regulatory program required by the major statutes of the 1970-1990 period corresponds to an improvement in many indicators of environmental quality regarding air, water, and waste, although even that proposition has been challenged in recent years. See, e.g., Jonathan Adler, The Fable of Federal Regulation, 22 Prop. & Env't Res. Center Rep., available at http://perc.org/articles/fable-federal-regulation (arguing that "[t]he oft-told explanation for federal environmental legislation—that ever-deteriorating environmental quality made federal regulation necessary—does not fit the historical record").

^{40.} One result is the difficulty that federal environmental agencies have had complying with the requirements of the Government Performance and Results Act. See Government Performance and Results Act of 1993, Pub. L. No. 103-62, 107 Stat. 285 (requiring the development of goal and annual performance reports). See, e.g., EPA OFFICE OF INSPECTOR GEN., THE Effectiveness and Efficiency of EPA's Air Program, at iv, 34 (1998), available at http://www.epa.gov/oig/reports/1998/8100057.pdf (noting lack of reliable emission factors for air pollutants and difficulty of establishing programmatic impacts on air pollution).

See Toward Sustainability, supra note 3, at 72. The report also concluded that the indirect impacts of private certification systems are substantial and

may be greater than the direct impacts. See id. at ES-8.

^{42.} See id. at 62.

^{43.} See id. at 61.

^{44.} See id. at 64-65; Jennifer Jacquet et al., Seafood Stewardship in Crisis, 467 Nature 28, 28-29.

^{45.} See Coglianese, supra note 28, at 71; Christmann & Taylor, supra note 28, at 449-52. See also Aseem Prakash & Matthew Potoski, Investing Up: FDI and the Cross-Country Diffusion of ISO 14001 Management Systems, 51 Int'L STUD. Q. 723, 723 (2007).

The empirical literature on toxics disclosure through the TRI, a public program required by the Emergency Planning and Community Rightto-Know Act (EPCRA), suggests that those firms that report higher TRI emissions than other firms in their sectors tend to suffer adverse stock prices after the public disclosure of their emissions data and, following disclosure, tend to reduce emission more than peer firms. See Konar & Cohen, supra note 29, at 109. These results are promising, but private disclosure programs may differ from the TRI program since high-emitting firms may choose not to participate in the private programs, and more research remains to done on the effects of private disclosure programs. See David Vogel, Private Global Business Regulation, 11 Ann. Rev. Pol. Sci. 261, 268-69 (2008) (concluding that "win-win" situations for businesses are not common). A study of a public-private hybrid that involved voluntary agreements between the U.S. Department of Energy (DOE) and electric utilities did not find a significant difference in carbon emissions between participants and nonparticipants. Magali A. Delmas & Maria J. Montes-Sancho, Voluntary Agreements to Improve Environmental Quality: Symbolic and Substantive Cooperation, 31 STRAT. MGMT. J. 575, 595-97 (2010) (studying DOE's Climate Challenge program).

^{47.} See Vandenbergh, supra note 32, at 916-17.

assesses the environmental risks associated with acquisitions, loans, and leases). Research could compare the performance of facilities or firms that have recently been the subject of commercial transactions with those that have not, but that work remains to be done.

Anecdotal information is available on the potential effects of the environmental requirements associated with supplychain contracting. For instance, Wal-Mart and the Environmental Defense Fund (EDF) recently announced a program to reduce carbon dioxide (CO₂) emissions from Wal-Mart's global supply chain by 20 million metric tons. 48 Although it is possible that no net emissions reductions will occur as a result of the program (e.g., the reductions may not occur or may occur even in the absence of the program, or the improved reputation of Wal-Mart may increase sales enough to generate new emissions that overwhelm the reductions from the program), the more plausible inference given the participation and incentives of the EDF is that substantial emissions reductions will result. For perspective, the 20-million-ton reduction from this private program, if genuine, is equivalent to a regulation requiring a 40% reduction in CO₂ emissions from the U.S. iron and steel industry.⁴⁹

III. To What Extent Does Private Environmental Governance Affect Public Environmental Governance?

The relationship between private and public governance is important to any assessment of the effects of private environmental governance, but the relationship is complex and not well-understood.⁵⁰ Private environmental governance in some cases appears to fill gaps by acting more quickly than government or by acting when government is unable to do so because of political barriers, lack of capacity, or jurisdictional limits. Private governance also may have a range of spillover effects. It could encourage public governance by serving a proof-of-concept function, developing constituencies that support regulation, or reducing the costs of regulation. It also could discourage government by competing with public governance, diverting scarce advocacy or other resources, or reducing the perceived demand for government action. Research on all of these topics is needed, but my focus here is on one aspect of the privatepublic relationship: the likelihood that private governance is displacing public governance at the federal level.

In my experience, reactions to private environmental governance function like a Rorschach test for environmen-

tal worldviews. Some environmentalists assume that federal government action on a given issue will occur on a timely basis and that private governance will displace or delay more effective public governance.⁵¹ Others assume government inaction and are more open to second-best approaches. Some free market advocates are open to private governance as a small-government avenue for achieving environmental protection. Others question the need for environmental protection efforts in the first place and assume that green groups are using private governance to force firms to take costly and unnecessary steps.⁵² In short, reactions to private environmental governance illuminate underlying assumptions about the likelihood and advisability of public environmental governance.

The relationship between private environmental governance and public governance turns in large part on the counterfactual: what would happen in the absence of private environmental governance? Although no one can predict future developments in national pollution control legislation, I argue that the history over the last four decades raises serious doubts about the prospects for a major new federal pollution control statute in the near term. As any number of scholars have noted, the development of environmental law began with an extraordinary outpouring of major statutory activity between 1970 and 1990.⁵³ As Figure 1 suggests, during this period, more than one dozen major pollution control statutes were enacted.⁵⁴

^{48.} Wal-Mart Announces Goal to Eliminate 20 Million Metric Tons of Greenhouse Gas Emissions From Global Supply Chain, WAL-MART (Feb. 25, 2010), http://news.walmart.com/news-archive/2010/02/25/walmart-announces-goal-toeliminate-20-million-metric-tons-of-greenhouse-gas-emissions-from-global-supply-chain (last Dec. 24, 2013).

See U.S. ÉPÁ, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006, at ES-9 (2008) (providing data indicating that iron and steel industry emissions are 49 million tons).

For a thoughtful examination of this topic at a global level, see Burkard Eberlein et al., *Transnational Business Governance Interactions: Conceptualization and Framework for Analysis*, 8 Reg. & Governance (forthcoming 2014).

^{51.} See Jacquet et al., supra note 44, at 29; Daniel Zwerdling & Margot Williams, Conditions Allow for More Sustainable-Labeled Seafood, NAT'L PUB. RADIO (Feb. 12, 2013, 12:01 AM), http://www.npr.org/2013/02/12/171376617/conditions-allow-for-more-sustainable-labeled-seafood (last visited Dec. 24, 2013) (reporting on comments of environmentalists that appear to assume that a better government option is available for certain fisheries).

^{52.} Vandenbergh, *supra* note 1, at 136.

^{53.} For a discussion of statutory developments, see Richard J. Lazarus, Congressional Descent: The Demise of Deliberative Democracy in Environmental Law, 94 GEO. L.J. 619, 621-22, 629-30, 652-53 (2006). For examples of efforts to identify major statutes, see Jason J. Czarnezki, Shifting Science, Considered Costs, and Static Statutes: The Interpretation of Expansive Environmental Legislation, 24 VA. ENVTL. L.J. 395, 398 (2006); Robert L. Glicksman, From Cooperative to Inoperative Federalism: The Perverse Mutation of Environmental Law and Policy, 41 WAKE FOREST L. REV. 719, 728 (2006); Lazarus, supra note 52, at 631; Thomas O. McGarity, The Goals of Environmental Legislation, 31 B.C. ENVTL. AFF. L. REV. 529, 529-30 (2004). Although definitions of "major" differ, I use the term to mean those statutes that have a broad mandate and a large likely effect on environmental quality or on the costs of environmental protection, or that generate substantial new federal agency programs or regulatory activity. Major pollution control statutes often are the product of extensive activity by legislative authorizing committees, the executive branch, and various stakeholder groups, although a major statute could bypass one or more of these entities. I include in the definition of major pollution control statute not only the initial statute (e.g., the Resource Conservation Recovery Act of 1976), but the major amendments as well (e.g., the Hazardous and Solid Waste Amendments of 1984). I include a total of 15 statutes in the category of major pollution control statutes, although the categorization is more of an art than a science. I focus on statutes administered by the federal EPA, rather than natural resource statutes (e.g., the Endangered Species Act (ESA), 16 U.S.C. §§1531-1544, ELR STAT. ESA §\$2-18). I include several health and safety statutes that have a substantial effect on pollution and are principally implemented by EPA, but I exclude statutes that are administered principally by other federal agencies (e.g., the Occupational Safety and Health Act, the Surface Mining Control and Reclamation Act (SMCRA) (30 U.S.C. §\$1201-1328, ELR STAT. SMCRA §§101-908), and the Federal Food Drug and Cosmetic Act).

^{54.} The major pollution control statutes enacted during the 1970-2012 period and included in Figure 1 are as follows: (1) the National Environmental

2-2014

Figure 1: Major Pollution Control Statutes 1970-2013



Included **Excluded** 1986 1970 National Environmental Policy Act SDWA Amendments Clean Air Act 1987 **CWA** Amendments Federal Water Pollution Control Act 1988 FIFRA Amendments Coastal Zone Management Act 1996 SDWA Amendments, Food **Quality Protection Act** Safe Drinking Water Act 2002 **CERCLA Amendments** Resource Conservation and Recovery Act 1976 Toxic Substances Control Act 1977 Clean Air Act Amendments Clean Water Act 1980 Comprehensive Environmental Response, Compensation, and Liability Act Hazardous and Solid Waste Amendments Emergency Planning and Community Right-to-Know Act Superfund Amendments and Reauthorization Act 1990 Oil Pollution Act Clean Air Act Amendments

The period of statutory action came to a close in the fall of 1990 after the enactment of the Oil Pollution Act (OPA) and the CAA Amendments. Although regulatory activity is still robust in some areas, the period of statutory inaction (1991-2013) now exceeds the period of statutory action (1970-1990). We can quibble about whether any one statute enacted over the last two decades could be considered to be major, but arguably no major pollution control statute emerged from the U.S. Congress from 1991 to the present.⁵⁵ The closest contestants for major statutes are the 1996 Amendments to the Safe Drink-

Policy Act (signed into law in 1970), 42 U.S.C. §§4321-4247 (2006); (2) Clean Air Act (1970), 42 U.S.C. §§7401-7626 (2006); (3) the Federal Water Pollution Control Act (1972), 33 U.S.C. §§1251-1376 (2006); (4) the Coastal Zone Management Act (1972), 16 U.S.C. §§1451-1464 (2006); (5) the Safe Drinking Water Act (1974), 42 U.S.C. §300f-300j (2006); (6) the Resource Conservation and Recovery Act (1976), 42 U.S.C. §§6901-6992k (2006); (7) the Toxic Substances Control Act (1976), 15 U.S.C. §\$2601-2671 (2006); (8) the Clean Water Act (1977); (9) the Clean Air Act Amendments (1977); (10) the Comprehensive Environmental Response, Compensation and Liability Act (1980), 42 U.S.C. §§9601-9628 (2006); (11) the Hazardous and Solid Waste Amendments (1984); (12) the Emergency Planning and Community Right-to-Know Act (1986), 42 U.S.C. §§11004-11049 (2006); (13) the Oil Pollution Act, 33 U.S.C. §§2701-2761 (2006); (14) the Superfund Amendments and Reauthorization Act (1986); (15) the Oil Pollution Act (1990); and (16) the Clean Air Act Amendments (1990). Pollution control statutes adopted during the 1970 to 1990 period but excluded as not major are as follows: the Safe Drinking Water Act Amendments (1986), the Water Quality Act (1987); and the FIFRA Amendments (1988).

55. Pollution control statutes adopted during the 1991 to 2012 period but excluded as not major are as follows: Food Quality Protection Act of 1996, 7 U.S.C. §136a, d, q, w; Safe Drinking Water Act Amendments of 1996, Pub. L. No. 104-182, 110 Stat. 1613; and the Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107-118, 115 Stat. 2356 (2002).

ing Water Act (SDWA),56 which added public disclosure and other provisions to the SDWA, and the Food Quality Protection Act of 1996, which amended the Federal Food Drug and Cosmetic Act and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)⁵⁷ to change the standards for regulating some toxics in foods.⁵⁸ Whether either of these reforms qualifies as major is debatable, but it is hard to argue that they generated the extensive regulatory activity and effects on the environment or the economy of the CAA Amendments of 1990 or any of the other major statutes of the 1970-1990 period.59 Even if we consider the two 1996 amendments to be major new statutes, the exception proves the rule: no other statutes are viable contestants for major statutes during the last two decades.60

The 1991-2013 period of statutory inaction applies not only to the expansion of the federal role in pollution control, but also to efforts to streamline or reduce the federal role. Critics of public environmental requirements have had substantial effects on the rulemaking process, but efforts to repeal or amend the major statutes adopted during the 1970-

^{56. 42} U.S.C. §§300f to 300j-26, ELR STAT. SDWA §§1401-1465.

^{57. 7} U.S.C. \$\\$136-136y, ELR STAT. FIFRA \$\\$2-35.

^{58.} Food Quality Protection Act (FQPA) of 1996, Pub. L. No. 104-170, 110 Stat. 1489 (adopting a "reasonable certainty of no harm" standard for pesticide residues). For example, the Natural Resources Defense Council (NRDC) includes the FQPA in its list of major environmental statutes, but that is the only statute from the 1990-2012 period included in the NRDC list. *Environmental Laws and Treaties*, NAT'L RES. DEF. COUNCIL, http://www.nrdc.org/reference/laws.asp (last visited Dec. 16, 2013).

^{59.} RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 149 (2006) ("[w]hat was most strikingly missing from the 1990s was the persistent statutory overhauls that had occurred in the 1970s and 1990s"); see also id. at 125 (noting that "there were only minor amendments of any of the domestic environmental laws during the 1990s"). Lazarus identifies the enactment in 1996 of the SDWA Amendments and the FQPA as exceptions. Id. at 125.

^{60.} Congress amended CERCLA, the Superfund statute, on several occasions to carve out particular interests (e.g., scrap metal dealers, municipal solid waste generators), to clarify the scope of lender liability, and to reduce disincentives to develop brownfields properties. SARA of 1986, 42 U.S.C. §§9601-9675 (2006). These were comparatively small, rifle-shot amendments, and a broader CERCLA amendment effort failed in the first half of the Clinton Administration. Recent efforts to enact major amendments to the Toxic Substances Control Act have died before a floor vote in the U.S. Senate.

^{61.} See, e.g., Lazarus, supra note 59, at 149-50 (noting the absence of "statutory overhauls" in the 1990s and describing the period as "maintaining the road"); Robert V. Percival et al., Environmental Regulation: Law, Science, and Policy 96, 98 (5th ed. 2006) (describing the 1990s as a period of "[r]ecoil and [r]einvention").

1990 period have foundered.⁶² Several general reforms succeeded on issues such as unfunded mandates and small business impact disclosure, but efforts to reduce the scope and cost of pollution control statutes such as the CWA failed.⁶³

Scholars have noted that the last two decades have involved extensive levels of regulatory reform and regulatory activity, but the dramatic drop-off in enactment of major statutes remains underexplored.⁶⁴ One possible reason for the lack of attention to the inaction post-1990 is that the effect of the statutory drop-off was not immediately apparent because of the knock-on effects of the earlier statutory activity. A multi-year boom in EPA regulatory activity was necessary to implement the CAA Amendments of 1990, and the enforcement activity driven by the Superfund Amendments and Reauthorization Act (SARA) to CERCLA in 1986 generated hundreds of litigation matters through the mid- to late-1990s and employed thousands of lawyers. Not until the second half of the 1990s did the effects of the federal statutory inaction begin to become clear in the market for lawyers. More recently, EPA's efforts to address greenhouse gas emissions through the mobile and stationary source provisions of the CAA have provided a regulatory focal point for scholarship.

For a variety of environmental issues, a major new statute is certainly possible. A vivid, catastrophic event may occur, a Baptist-and-bootlegger coalition may be assembled, costs may be sufficiently low to avoid opposition from affected interests, political and ideological polarization may be avoided, or for other reasons the two decades of gridlock may not predict the future performance of the federal legislative process. In addition, for some of the remaining environmental problems, regulatory responses under existing statutes may provide an adequate response. From my perspective, however, proponents of the view that private governance will displace public governance bear a heavy burden of explaining why the pattern of the last two decades will not hold true for the problem they are seeking to address.

IV. Does Private Environmental Governance Offer New Solutions to Environmental Problems?

As I mentioned at the outset, analyses of environmental law and policy typically assume that the actor that can or should respond to environmental problems is government and the action is some form of statutory or regulatory response. As a result, the actions available to advocates are to lobby government or to litigate to force or block action by government or regulatory targets, typically corporations. This public governance model contrasts sharply not only with the results of the studies discussed above, but also with the coverage of environmental developments in the environmental trade press, which include almost daily announcements about new private governance initiatives. 65 In addition, not only are new private governance organizations emerging, such as FSC, MSC, and CDP, but in recent years the staffing and activities of organizations such as WWF, EDF, and the Natural Resources Defense Council have reflected a growing focus on private environmental governance.66 An environmental advocate today may need to know as much about commodities markets or the supply chain for bananas as about the nuances of legislative procedures or regulatory litigation. Exclusive reliance on the public governance model can limit our understanding of the breadth of environmental governance, the skills needed to function as an environmental lawyer or manager, and the options available to address the remaining environmental problems.

At the outset, the development of new private governance approaches may require overcoming the terminology of the public governance model. We often ask "what can government do?" in response to an environmental problem, but that presumes the actor is government. If private governance is an option, other private nonprofit and for-profit institutions may be the appropriate actor. We refer to those who act as "policymakers," and their actions as "public policy" or "regulation," but with private governance, the actors may be a corporate chief financial officer,

^{62.} See Daniel A. Farber, The Thirty Years War Over Regulation, 92 Tex. L. Rev. 413, 414 (2013) (book review); LAZARUS, supra note 59, at 247 (noting that despite control of Congress in 2003, "the Republican Party steadfastly avoided including a major reform of environmental laws as any part of its overt political agenda").

Pollsters during this period urged regulatory reform advocates not to use language suggesting that statutory reforms would lead to a weakening of environmental protections. *Id.* at 247-48.

^{64.} An exception is recent work by David Rejeski, who identifies two peaks in environmental activity, one in the early 1970s and one around 1990, and suggests that high levels of public support for environmental protection correspond to these two periods of activity. See David Rejeski, Any Big Ideas Left?, 28 ENVTL. F. 36, 37-39 (2011). Rejeski's analysis of the two peaks is correct, but major environmental statutes also were enacted in the period between these two peaks (e.g., the CWA in 1977, CERCLA in 1980, HSWA in 1984, SARA and EPCRA in 1986) when public support for environmental protection across a number of measures was comparable to the 1991-2012 period, yet no major new statutes were adopted during the latter period with the possible exception of the FQPA in 1996. Id. at 27; Richard B. Stewart, A New Generation of Environmental Regulation?, 29 CAP. U. L. REV. 21, 22-25 (2001).

^{65.} For a recent example, see Andrea Vittorio, Report Says Supermarkets Not Doing Enough to Phase Out Potent HFC Emissions, Daily Envt. Rep. (BNA), Oct. 17, 2013 (noting that a report by the Environmental Investigation Agency, a private advocacy organization based in London, criticizes large grocery stores for not having corporate policies on reducing use of ozone-depleting chemicals). In her recent work, Sarah Light uses several examples to make the point that the common assumption is that government should be viewed as a regulator, but its roles as consumer and polluter are also important for environmental governance. See Sarah E. Light, The Military-Environmental Complex, 55 B.C. L. Rev. (forthcoming 2014); Sarah E. Light, NEPA's Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies, 87 Tul. L. Rev. 511 (2013).

^{66.} For examples, see, e.g., WWF, Jason Clay: Feeding Nine Billion and Maintaining the Planet, at http://wwf.panda.org/wwf_news/multimedia/tedxwwf/events/geneva/speakers/jason_clay.cfm (last visited Dec. 24, 2013) (noting that Jason Clay's title is "Market Transformation"); Natural Resources Defense Council, Cloud of Commitments, at http://www.cloudofcommitments.org/ (noting the corporate carbon emissions reduction commitments made at the Rio+20 conference); Environmental Defense Fund, A Roadmap to Corporate GHG Programs, available at http://www.edf.org/sites/default/files/GHG_roadmap_Final.pdf.

university procurement official, or the chair of the board of a private standard-setting organization, positions that do not often come to mind when we use the term policymaker. The terms policy and regulation are easy fits with government actions, but may not apply to private governance activities, which may involve private standards or initiatives. Similarly, we instinctively refer to global environmental activities as involving international environmental law or governance, but with private environmental governance, nation-states may not be involved. Advocacy organizations, multinational corporations, nonprofit private certification organizations, and others may engage in activity that has little contact with national governments and crosses many national boundaries, and the appropriate term may be global rather than international environmental governance.

Several environmental problems are promising targets for private governance initiatives. For example, although federal regulatory activity is underway and legislative action has occurred in several states, national and international action on climate change is proceeding very slowly. At the same time, private supply-chain contracting requirements regarding carbon emissions and energy use have grown dramatically. Wal-Mart's recent commitment to reduce its supply-chain emissions by 20 million metric tons of CO₂ is only one example.⁶⁷ In 2008, a number of leading U.S. lenders, working with three environmental groups and several power producers, agreed to abide by the Carbon Principles.⁶⁸ In addition, private carbon labeling of consumer goods and private corporate emissions disclosure standards are all proposed or existing interim options that could buy time for more comprehensive government measures.⁶⁹ These options also could build support for the other measures and could complement them after they are adopted.

A second area of opportunity is hydraulic fracking, which promises to generate large quantities of natural gas, but also presents environmental risks.⁷⁰ Federal, state, and local government actions have varied from a statutory ban on certain federal agency actions to a state moratorium on drilling to a wide range of state and local requirements. Pri-

vate and public-private governance responses have included a voluntary standard released by the Center for Sustainable Shale Development 2013 and a database of fracking fluids.⁷¹ Recent academic research recognizes the potential roles of public and private governance regarding fracking, and includes proposals for public-private hybrids and private governance options.⁷²

These are just initial examples of the opportunities presented by private environmental governance.⁷³ Others include the role that product labeling and other forms of private governance could play in addressing nonpoint water pollution, the potential for homeowner association sustainability programs, crowd-sourcing for funding solar energy initiatives, and many others.⁷⁴

Although a more systematic analysis is beyond the scope of this Article, it is possible to identify a number of situations in which private environmental governance is likely to be a promising option. For instance, it may be an important gap-filler if the problem requires a prompt response and the alternative is federal legislation. Private governance also may be an attractive option if a problem requires action across national boundaries, but national sovereignty concerns and international standard-setting are barriers. Private governance also may fill gaps when a country lacks sufficient environmental laws or the capacity to enforce the laws or where government is responding to near-term local interests over long-term national interests.⁷⁵

V. Conclusion

After almost 40 years in which environmental law has been conceived of as a public law field, it is difficult to look

- 71. See Center for Sustainable Shale Development, at https://www.sustain-ableshale.org/wp-content/uploads/2013/09/Performance-Standards-rev.-8.19.13.pdf.
- 72. See David B. Spence, Corporate Social Responsibility in the Oil and Gas Industry: The Importance of Reputational Risk, 86 CHL-KENT L. REV. 59, 60 (2011); Hannah J. Wiseman, The Private Role in Public Fracturing Disclosure and Regulation, 3 HARV. BUS. L. REV. ONLINE 49, 49 (2013); Hari M. Osofsky & Hannah J. Wiseman, Hybrid Energy Governance 1 (Minn. Legal Studies Research Paper No. 12-49, 2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2147860.
- 73. An emerging body of scholarship is beginning to identify other potential applications of private governance. *See, e.g.*, Timothy D. Lytton, Kosher: Private Regulation in the Age of Industrial Food (2013) (food).
- 74. See Robert J. Aalberts & Darren A. Prum, Our Own Private Sustainable Community: Are Green Covenants, Conditions, and Restrictions A Viable Alternative to a More Environmentally Sustainable Future for Homeowners?, 43 N.M. L. REV. 157 (2013); Kyle W. Robisch, Getting to the (Non)Point: Private Governance as a Solution to Nonpoint Source Pollution, 67 VAND. L. REV. (forthcoming 2014) (nonpoint water pollution); Earth911, 8 Ways to Green Your HOA, at http://earth911.com/news/2009/05/11/8-ways-to-green-your-hoa/ (last visited Dec. 24, 2013) (homeowner associations); Mosaic, Grow Your Money With Solar, at https://joinmosaic.com/ (last visited Dec. 24, 2013) (crowd-source funding of solar projects).
- 75. Tom Tietenberg & David Wheeler, Empowering the Community: Information Strategies for Pollution Control, Frontiers of Environmental Economics Conference (Oct. 23-25, 1998), available at http://www.colby.edu/personal/t/thtieten/front.pdf (discussing emissions disclosure program in Indonesia); Laura Petersen, Senate Panel Probes Disputes Over Sustainable Certification Programs, E&E DAILY, Sept. 23, 2013 (noting that MSC standards that might result in "[t]he possibility that wild Alaskan salmon may be excluded from the world's largest retailer [Wal-Mart], U.S. troop mess halls and national parks has triggered a full-throttle response from Alaska Sens. Lisa Murkowski (R) and Mark Begich (D)").

^{67.} See Wal-Mart, supra note 48. For analysis of characteristics that contribute to successful private governance programs, see Karen Bradshaw Schulz, New Governance and Industry Culture, 88 NOTRE DAME L. Rev. 2515, 2515-50 (2013)

See Carbon Principles, http://carbonprinciples.org/ (last visited Dec. 15, 2013).

^{69.} See Kenneth W. Abbott, Strengthening the Transnational Regime Complex for Climate Change, Transnat'l Envil. L. (forthcoming), available at http:// ssrn.com/abstract=2219554; Richard Stewart et al., Building a More Effective Global Climate Regime Bottom-Up, 14 Theoretical Inquiries L. 272 (2012); Eric W. Orts, Climate Contracts, Va. Envil. L.J. 197, 198 (2011); Vandenbergh & Cohen, supra note 10, at 221-92; Michael P. Vandenbergh, Climate Change: The China Problem, 81 S. Cal. L. Rev. 905, 939-40 (2008); Michael P. Vandenbergh et al., Time to Try Carbon Labelling, 1 NATURE CLIMATE CHANGE 4, 4 (2011).

^{70.} See generally NAT'L PETROLEUM COUNCIL, PRUDENT DEVELOPMENT: REALIZING THE POTENTIAL OF NORTH AMERICA'S ABUNDANT NATURAL GAS AND OIL RESOURCES (2011), available at http://www.npc.org/reports/NARD-ExecSummVol.pdf (providing overview of natural gas fracking benefits and risks); Jeff Tollefson, Methane Leaks Erode Green Credentials of Natural Gas, 493 NATURE 12, 12 (2013).

beyond government for important responses to environmental problems. Viewing private environmental governance as a discrete field can facilitate the transition from assuming that the only actor that can respond to environmental problems is government and the only instrument is legislation or regulation, and toward asking what any institution can do and whether other instruments are viable. Not all aspects of private environmental governance are new, and not all environmental problems are suitable for private governance initiatives, but new forms have emerged that are worthy of the attention of policymakers, practitioners, and scholars, particularly in light of the national and international gridlock on major environmental problems.