TRIBUTE TO PROFESSOR DAVID MARKELL: A COLLEAGUE AMONG COLLEAGUES

ERIN RYAN*

It is a great pleasure to be able to celebrate my colleague, David Markell, at his retirement from an extraordinary career in both civil service and academia. Other contributors to this collection will speak to his legacy as a scholar and a teacher, and I would certainly echo everything they say. Indeed, I will, for a bit, although I will save my central paean here for Dave's contributions as a colleague, friend, and fellow citizen. But each of these contributions begins with the special insight and empathy that he brought to his work and his community every day, drawing on the experiences he gained over an extraordinary career path.

To a prolific career of scholarly writing, Dave brings the rare gift of high-level practical experience. Legal academia has a noted preference for hiring faculty from the ranks of the recently graduated, with only early career experience, unsullied by prolonged advocacy or regulatory experience. Like the typical new law professor, Dave began his career with a prestigious judicial clerkship in his home state's Supreme Court and brief stints at a pair of white-shoe D.C. law firms. He then followed his heart to a longer stint at the U.S. Environmental Protection Agency, where he earned multiple performance awards as an Assistant Regional Counsel for Region II, including New York State. But at the time so many legal academics begin shifting back toward the ivory tower, Dave plunged further into the actual nuts and bolts of environmental law and governance, achieving substantial professional success as a lawyer before he offered it back to the next generation as a teacher and scholar.

Before eventually joining the law faculty first at Albany Law School and then here at Florida State University, Dave completed his work with the U.S. Environmental Protection Agency, briefly shifted to the Environmental Enforcement Section of the U.S. Department of Justice, Land and Natural Resources Division, where he was a trial attorney, and finally settled into leadership roles at the New York State Department of Environmental Conservation. There, he served for several years as Director of Environmental Enforcement and eventually as Deputy Commissioner in the Office of Environmental Remediation.

* Elizabeth C. & Clyde W. Atkinson Professor and Associate Dean for Environmental Programs, Florida State University College of Law.

Even in the middle of his academic career, he spent two additional years engaged in real world environmental governance through his work with the North American Commission for Environmental Cooperation, an international institution established in 1994 by the United States, Canada, and Mexico under the North American Agreement on Environmental Cooperation, complementing the contemporaneous North American Free Trade Agreement. Closely reflecting the personal values that have always animated Dave's career, the Commission for Environmental Cooperation was designed to advance international cooperation, sustainable development, and mutually beneficial environmental and economic policies for the benefit of present and future generations in all partner nations. Dave directed the office that managed citizen submissions on enforcement matters, an innovative institution of environmental governance that engaged public participation in support of the agency's overall mission, empowering citizens to formally allege failures by any of the three nations to effectively enforce their own environmental laws.

While an academic, he also worked with the American Bar Association on its Central and East European Law Initiative to analyze draft environmental protection laws for the Republics of Georgia and Armenia. He served on the National Advisory Committee of the U.S. Environmental Protection Agency. Over an extended two-year period, he successfully mediated a federal Clean Air Act enforcement case. In various capacities, he has advised the Organization of American States, the Central American Free Trade Agreement Secretariat, the Auditor General of Canada, and the State of Florida Departments of Health and Economic Opportunity.

It was this rich career in the actual practice of environmental governance before academia that enabled Dave to marry his natural gift for academic analysis with an in-depth, field-level understanding of the constraints, challenges, and rate-determining steps of environmental law. As a result, both his scholarship and his teaching were infused with a level of insight that most law professors will never quite reach. Adjunct instructors, teaching a course alongside regular legal practice, are beloved by students for their tales from the field and useful practical advice—but they rarely get the bird's eye view that enables academics to see the connections and missed connections among different fields of law. With the luxury of time and immersion, full-time faculty can see the broader patterns, the bridges with other fields of academic

inquiry, and if they are creative, opportunities for beneficial legal redesign—but with limited practical experience, they may miss the mark. Dave is the rare academic who genuinely combines both.

These twin gifts have consistently animated both his classroom and his scholarship. Countless former students of his, now successful leaders in the field, have testified to the inspiration he provided them at the various gatherings in which we have honored him this year. Doubtlessly, his gifts also contributed to the success of the environmental law program that he ran for many years at FSU, as Associate Dean for Environmental Programs. And in his performance of other leadership roles here, including Associate Dean for Academic Affairs and Associate Dean for Research. But environmental law was always his true academic love, and that love, spirit, and experience infused the program with energy and enthusiasm. It is surely a credit to his ability to bring environmental law students, practitioners, academics, and civic leaders together in creative ways that the program he led here consistently placed in the top twenty environmental law programs nationwide.

Meanwhile, the incorporation of Dave's twin gifts into his written work invites the highest possible praise, in that his scholarship is truly *useful* to the field. In contrast to so much legal scholarship today, Dave was never stalking the "big kill"—the would-be paradigm shifting re-imagination of the field that American academics are wont to chase but will probably never be cited in a judicial opinion or any other intersection with the real legal world. Dave's ambitions were more mature, and ultimately, more *useful*—even, and perhaps especially, to those outside academia. He was able to synthesize this deep well of experience with the theoretical tools of the academic to break the superwicked problems of environmental law into more digestible pieces and then recombine them into meaningful proposals for progress. In the end, Dave simply wanted to make the world better by training better lawyers, helping us understand how environmental law could work even better than it does now, and participating in his career-long practice of thinking and acting both locally and globally to solve real environmental problems. And that is exactly what he did, from the earliest days of his career to—I expect—many days yet to come.

Despite the towering figure Dave is professionally, the part of Dave that I have most appreciated is much more personal—and that is the extraordinary human being that he is. Dave educated his students, produced this body of work, and helped lead the law school at the same time that he took care of his family, his community, and himself. He raised three daughters with his wonderful wife, Mona, and seemed intimate with everything and

everyone interesting in Florida government. He was the President and a Board Member of the Tallahassee Jewish Federation. He worked with teens at his Temple on charitable projects, earning widespread recognition for their good works, and he served the wider community in countless other ways, especially involving youth.

Dave became deeply involved in the public schools when his children were young and remained so long after that, working with them through systemic challenges and tutoring at-risk children. When he saw that more children needed help than he could help alone, he created not one but two middle school mentoring programs that partnered law students with struggling middle school students who would benefit from tutoring and role modeling. Dave served on countless local, state, national, and even international councils, and committees in whatever way he could help them, and he also found time to coach his daughters' softball teams. Dave is such a mensch that he even inspired those around him to eat better and exercise more regularly by his own good habits, leaving the office for a daily run to the athletic center after a carefully crafted healthful lunch.

At FSU too, Dave has been a backbone of the community. He cared about institution-building, but he also cared about individuals, and he went above and beyond the call of duty to support every student and colleague who crossed his path. While he was a towering figure professionally, it was easy not to know this, because he was so relentlessly humble and unassuming about all of this. Those of us he leaves behind at FSU will miss his consistently calm presence, accented with good humor and a strong sense of inclusiveness. Former colleagues have recalled how supportive he was of junior women faculty moving through the tenure process at a time where there were few tenured women on the faculty, and how committed he was to values of diversity and equity.

Indeed, Dave was as wonderful a mentor as a new faculty member could have asked for—even the full professor that I was when I arrived here in 2015. Dave helped guide me through the interstices of my new local and institutional environment with a kindness of spirit that warmed me every time we met, and still does. Dave was so instrumental in bringing me here, and then helping me find an academic home here, that it is still hard for me to imagine being at FSU Law School without him. I already miss his wisdom, compassion, clarity of judgment, and steady leadership at work every day. But I am also excited for the new pursuits and adventures that await him on the other side of academia. Dave is, and always will be, a colleague among colleagues, the very best among us.

EPILOGUE

Since writing the above essay many months ago, I have had the terrible task of sharing with our students, alums, and colleagues the tragic news that Dave Markell finally left us on March 22, 2021, surrounded by family after a heroic battle with cancer. News of his passing prompted a spontaneous outpouring of grief from the many communities of which he was a part—from FSU alumni throughout the legal profession, to the local Jewish community here in Tallahassee, to the worldwide community of environmental law academics who cherished him. Here at FSU, we collected over ten pages of these remembrances to share with his loving family.

Reflecting the central theme of this essay, each of his communities heralded the remarkable friend, colleague, family member, and fellow citizen that Dave remained to his final days. Certainly, he devoted himself professionally to the highest aspirations of the environmental field, and he succeeded in a career marked by both academic and real-world accomplishments. We will continue to rely on his six books and fifty some-odd articles on such critical topics as climate change, environmental enforcement and compliance, and international environmental cooperation. Yet the enduring theme of these remembrances was his utter nobility and sincerity as a human being.

Despite these countless professional accomplishments, we will remember Dave even more as the man who personally embodied grace, so wholly devoted he was to bettering life for the people and the world around him. He loved his family, nurtured his students, and helped all corners of his community at every opportunity. Everyone who knew him was quietly awestruck by his simple and straightforward goodness. Personally, I'm not sure a more decent man has ever walked the earth. As one family friend summed him up, no matter how grand his professional engagements, he was always the guest who would volunteer to clean up the kitchen after a holiday meal.

In writing these words today, just weeks after his passing, I remain, together with everyone in his various communities, riven with feelings of profound loss and grief. As time presses forward, however, I also know that we will all draw courage from his strength, humility from his example, and inspiration from his role modeling, to make the world better in every way that we, too, are able.

THE THEORY AND MECHANICS OF AGENCY ACCOUNTABILITY

HANNAH J. WISEMAN*

I. THE APPARATUS OF THE ADMINISTRATIVE AGENCY—ENFORCEMENT AND COMPLIANCE 176
II. AGENCIES' ACCOUNTABILITY TO CITIZENS 181
III. CONCLUSION 187

Dave Markell—professor, father, and former attorney—made an incredibly wide range of contributions to the practice, theory, and pedagogy of environmental law, as this issue demonstrates.[1] It is precisely this rich background of his life—his impressive career prior to teaching—that makes his contribution to the environmental and administrative law literature so profound, as I discuss here. I focus on two central, intertwined aspects of Dave's work that have most deeply influenced my thinking and, I believe, the academy as a whole. These include, first, an in-depth analysis of the actual mechanics of the administrative state, and second, path-breaking theory and critique of citizens' ability to participate in and influence administrative processes. These central features are intertwined because nearly all of Dave's work explores agencies from an accountability and legitimacy perspective. Many of his articles assess agencies' ability to achieve societal objectives—in the environmental realm, improving environmental performance in ways that accord with the public's vision for environmental quality and the stated goals of environmental statutes.

Dave's work does not sacrifice theory in his exploration of how agencies actually work (and should or could work). Instead, he *theorizes* mechanics, providing valuable frameworks for thinking about and analyzing agency processes—particularly compliance. This is incredibly important in an environmental and administrative law literature that tends to be dominated by a focus on court review of agencies and surficial attention to agency processes. And in the realm of citizen participation in agency

* Professor of Law; Professor and Wilson Faculty Fellow, College of Earth and Mineral Sciences; Co-funded Faculty, Institutes of Energy and the Environment—Penn State University, University Park, https://pennstatelaw.psu.edu/faculty/wiseman-0.

1. Before beginning his teaching career, Dave served as the Director of the North American Commission or Environmental Cooperation and in various roles on the New York State Department of Environmental Conservation. He also served as trial attorney with the U.S. Department of Justice, Assistant Regional Counsel at the Environmental Protection Agency, and as an Associate at two prestigious law firms. David L. Markell, Curriculum Vitae 2–3, https://law.fsu.edu/sites/g/files/upcbnu1581/files/Faculty/Related%20Links/Markell_David_CV_040819.pdf.

processes, I would describe Dave as the leading voice on this subject. His articles in this area, including his solo-authored pieces and articles with Tom Tyler and Emily Hammond, are path-breaking.[2]

Part I of this Essay explores some of Dave's work on agency mechanics—particularly in the area of agencies' efforts to ensure compliance with environmental laws and enforce violations. This Part describes how his theory and analyses contribute to a new and important way of thinking about administrative and environmental law. Part II then tours some of Dave's work on citizen participation in agency rulemaking and the important lessons it provides for the academy and agencies. These brief forays into small pieces of Dave's massive contributions to the literature only touch the surface, but I hope that they provide compelling examples of the outsized impact that he has had.

I. THE APPARATUS OF THE ADMINISTRATIVE AGENCY—ENFORCEMENT AND COMPLIANCE

Much of modern Administrative Law is about the courts. The scholarship has an almost obsessive focus on *Chevron, Mead*, *Auer*, and similar cases that establish the boundaries of courts' deference to agency action.[3] A large literature moves well beyond this court-centric realm, exploring how and why agency officials make the decisions that they do,[4] agencies' role within U.S. federalism and the constitutional system more broadly,[5] competing conceptions of agency accountability to the public,[6] and the benefits and drawbacks

2. *See* Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REVE. 313 (2013); David L. Markell & Tom R. Tyler, *Using Empirical Research to Design Government Citizen Participation Processes: A Case Study of Citizens' Roles in Environmental Compliance and Enforcement*, 57 U. KAN. L. REV. 1 (2008).

3. United States v. Mead Corp., 533 U.S. 218, 234 (2001); Auer v. Robbins, 519 U.S. 452 (1997); Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984).

4. *See, e.g.*, Mark Seidenfeld, *Why Agencies Act: A Reassessment of the Ossification Critique of Judicial Review*, 70 OHIO ST. L. J. 251 (2009).

5. *See, e.g.*, Gillian Metzger, *Administrative Constitutionalism*, 91 TEX. L. REV. 1897, 1900–1915 (2013) (exploring how agencies have shaped and interpreted constitutional law and the potential risks posed by executive actors working within "ambiguous constitutional space"); Dave Owen, *Regional Federal Administration*, 63 UCLA L. REV. 58 (2016) (exploring and normatively assessing agencies' use of regional offices to make and implement regulations); David S. Rubenstein, *Administrative Federalism as Separation of Powers,* 72 WASH. & LEE L. REV. 171, 179 (2015) (summarizing the burgeoning literature on "administrative federalism," which explores the role that agencies play in the federal-state power balance, and offering an account of how various proposals for *how* agencies should act within this space affect "various conceptions of federalism(s)" and the separation of powers).

6. *See, e.g.*, Lisa Schultz Bressman, *Beyond Accountability: Arbitrariness and Legitimacy in the Administrative State*, 78 N.Y.U. L. REV. 461, 470–92 (2003) (exploring and critiquing theories of agency legitimacy, including the oft-used presidential control model).

of agency collaboration or the lack thereof.[7] But Dave Markell's work, in particular, digs even more deeply within the offices and files in which agency rules, enforcement actions, and other agency matters take shape. Dave explores court deference to agencies, concerns about agency accountability, and other weighty theoretical matters through a new lens—one that realistically incorporates the psychology, procedural standards, and practical limitations that shape agencies' actions.[8]

Dave's work examining the apparatus of the agency—the tools actually used to accomplish agency goals—has been particularly influential in the area of environmental compliance and enforcement. In *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship*—an award-winning article—Dave closely examines the EPA's goals for compliance and enforcement. He observes that at the federal-state interface, where EPA regional offices work with states that implement federal environmental policy, the EPA is largely not meeting these goals.[9] He then explores the ways in which EPA's efforts to improve compliance and enforcement have fallen short and suggests potential improvements for the path forward.[10] Dave's exploration of the potential tools available to improve enforcement and compliance is worth highlighting here, as it is a theme that connects much of his work.

The traditional deterrence-based approach to environmental enforcement involves monitoring whether entities are complying with federal environmental laws—such as whether emissions from a smokestack exceed a permissible amount—and taking "formal enforcement actions" when significant violations are found; "requiring the violator to return to a state of compliance"; and imposing sanctions for noncompliance.[11] Dave tackles this enforcement approach through a framework that allows for meaningful analysis and real improvement of agency behavior. In

---

7. *See, e.g.*, Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131 (2012); Jody Freeman & Daniel A. Farber, *Modular Environmental Regulation*, 54 DUKE L.J. 795 (2005).

8. David L. Markell, *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality*, 24 HARV. ENVTL. L. REV. 1 (2000); David L. Markell & C. Rechtschaffen, *Improving State Environmental Enforcement Performance Through Enhanced Government Accountability and Other Strategies*, 33 ENVTL. L. REP. 10559 (2003).

9. 24 HARV. ENVTL. L. REV. 1, 7 (2000). This article, in addition to three other articles authored by Dave, was selected as among the best annual contributions to legal scholarship in the field of environmental law and reprinted in the *Land Use & Environment Law Review*. *See* David L. Markell curriculum vitae, *supra* note 1, at 4.

10. *Deterrence-Based Enforcement*, *supra* note 8, at 44–109.

11. *Deterrence-Based Enforcement*, *supra* note 9, at 10.

The Role of Deterrence-Based Enforcement, he provides a five-part framework for potential enforcement strategies, all of which also address the complicating fact that the EPA relies largely on states to enforce federal environmental laws.[12] He examines how the EPA could provide clearer, stronger, and more consistent messages to the states; lighten up oversight in high-performing states and tighten it for "laggard[s]"; do more federal enforcement work rather than rely so much on the states (including the use of "overfilings," which are in addition to state enforcement); wholly take over enforcement by withdrawing some states' authorization to implement federal environmental laws; and deploy a "spotlight" approach with scorecards and similar tools that allow the public to evaluate states' enforcement schemes.[13]

Dave does not view any of these approaches as a silver bullet. Indeed, Dave is the most balanced, thoughtful, and self-critical scholar whom I have encountered within the academy. He is never satisfied with an answer and always thinks about the potential downsides and caveats to any proposed solution—including the solutions that he crafts. This paper exemplifies these traits. *Deterrence-Based Enforcement* deeply explores the costs and benefits of the five main tools proposed for improving the EPA's compliance regime. Take the example of the spotlight approach, which Dave views as promising. Despite its upsides, Dave notes the many challenges posed by this tool, including, for example, the fact that humans—including those who work for agencies—are often hesitant to publicize their own faults.[14] His citation to a 1996 *Enforcement Accomplishments Report* highlights this flaw; the report concludes that the EPA's compliance and enforcement programs "ensure the overall quality of environmental performance remains high." [15] Yet as Dave observes, independent government audits reveal quite a different reality.[16]

Dave also notes the data-intensive nature of the spotlight approach and the complexities of scorecard development, including the importance of including data on areas in which enforcement is most needed, as exemplified by compliance rates; "the extent of enforcement," such as "the number and quality of inspections"; and enforcement results, such as whether pollutant loadings actually

---

12. *Id.* at 32.

13. *Id.* at 70–109.

14. *Id.* at 103.

15. *Id.* (quoting U.S. ENVTL. PROT. AGENCY, EPA-300-R-97-003, ENFORCEMENT AND COMPLIANCE ASSURANCE ACCOMPLISHMENTS REPORT FY 1996, at 3–20 (1997)).

16. *Id.*

went down.[17] Despite these challenges, Dave ultimately argues that the spotlight approach still might be one of the more promising tools for addressing the EPA's ongoing difficulties in meeting its compliance and enforcement goals.[18] The conclusion of this article is worth highlighting, as it reveals Dave's uncompromising honesty and straightforwardness and the extent to which his work pushes for real and meaningful improvements. Dave does not pull punches here. He argues that if, through a spotlight approach or a similar tool "EPA is unwilling or unable to hold states, and itself, publicly accountable for a certain level of deterrence-based enforcement performance, then perhaps the writing is on the wall that the EPA lacks the capacity to create and administer a national deterrence-based enforcement and compliance system."[19]

Beyond assessing the EPA's enforcement tools and potential improvement of these tools through a federalism lens, Dave provides a comprehensive framework for analyzing and improving agency enforcement through work with Rob Glicksman, in articles such as *A Holistic Look at Agency Enforcement*.[20] Here, as the title suggests, Dave and Rob take on all aspects of enforcement, rather than just focusing on one angle or another (such as optimal enforcement levels), as the literature tends to do. The article lays out five components that make enforcement effective, examines how these features interact in different contexts, and identifies specific regulatory complexities that affect the types of enforcement designs that should be chosen. As characterized by Rob and Dave, the five components that make enforcement effective include clarity of standards; a likelihood of achievability; verifiability—"the capacity to monitor compliance with regulatory requirements"; an appropriate reward-sanction balance; and promotion of legitimacy, meaning "enhancing confidence of the public and others," such as avoiding impressions of an overbearing or corrupt agency.[21]

With respect to how these components of effective enforcement interact and can be even stronger when deployed in combination, Dave and Rob provide a helpful case study from Colorado, where the state tried a new approach to regulating entities that generate small quantities of hazardous waste. Here, the state made its standards clearer, providing a "comprehensive compliance checklist" with all

---

17. *Id.* at 107.

18. *See id.* at 113.

19. *Id.* at 113–114.

20. David L. Markell & Robert L. Glicksman, *A Holistic Look at Agency Enforcement*, 93 N.C. L. REV. 1 (2014).

21. *Id.* at 13–25.

regulatory requirements and associated guidance.[22] It also enhanced the verifiability of compliance by requiring each regulated entity to submit a checklist certifying compliance with all regulatory requirements, and it imposed sanctions of enforcement and potential fines for a failure to submit the checklist.[23] The combination of these effective enforcement strategies caused compliance rates (as measured by full compliance with all requirements) to increase from 32 percent to 84 percent in just a few years.[24]

Beyond showing how the effective components of enforcement can work on the ground—particularly when used in combination—Dave and Rob examine four factors that should influence the design of an enforcement regime. These include the hybridity of regulation—the fact that several different federal agencies are involved in regulating, for example, with the EPA writing regulations and the Office of Information and Regulatory Affairs assessing the costs and benefits of those regulations.[25] There is also federal-state hybridity in many EPA enforcement regimes because many federal environmental statutes rely on states to implement specific standards established by Congress and the EPA.[26] A second factor affecting choice of enforcement tools is what Dave and Rob define as the "reality-check"—whether an enforcement regime that includes the five components for effectiveness is actually working, and how the five components could be tweaked to improve the regime.[27] Third, there is the issue of dynamism—the fact that scientific understandings of risk and problems, and societal expectations for regulation, frequently change, thus demanding a flexible and responsive regulatory regime, including the enforcement component of that regime.[28] Finally, Dave and Rob focus on the importance of salience, meaning that agencies should focus on improving enforcement regimes where this improvement is needed the most due to high rates of noncompliance or large environmental problems caused by a particular sector.[29]

In summary, *A Holistic Look at Agency Enforcement* provides an analytical guidebook for agencies and scholars writing in the enforcement area, supplying an accessible, carefully theorized

---

22. *Id.* at 26–7.
23. *Id.* at 26.
24. *Id.* at 27.
25. *Id.* at 33.
26. *Id.* at 34.
27. *Id.* at 39.
28. *Id.* at 39–41.
29. *Id.* at 42–43.

framework for designing and evaluating enforcement regimes. This article is a must-read for any agency looking to meaningfully improve compliance. *Deterrence-Based Enforcement* and *A Holistic Look at Agency Enforcement* are just two examples of Dave's large body of work in the area of regulatory design and evaluation. They highlight themes throughout this body of Dave's work, including extremely detailed research. Dave regularly delves into internal agency reports and reviews of agency performance that often go unnoticed by scholars. Another theme throughout this work is its helpful use of real-world case studies to show how a proposed framework for improved regulatory design can be implemented. And finally, a recurring theme is itself theme based. Dave regularly identifies patterns or themes in the enforcement and compliance area—ways of wrapping one's head around a vast subject that is often just referenced in passing (as in, "There is not enough enforcement of this law"), or viewed as too complex and close to the ground for scholars to fully grapple with. Determining which standards are most important, setting the right standards, and figuring out how to ensure compliance with those standards is a daunting, unenviable task. Dave cuts a clear, convincing path through this thicket—a path with well-marked signs at various decision points—for both agencies and scholars.

II. AGENCIES' ACCOUNTABILITY TO CITIZENS

Much of Dave's work in the enforcement and compliance area—and beyond—focuses specifically on how agencies respond to public expectations for agencies' performance, particularly in the environmental realm.[30] This work, too, is very mechanics-focused. As Dave notes in *"Slack" in the Administrative State*, he examines "important 'details of agency behavior'" in the environmental realm to normatively assess agencies' "openness and accountability" to

30. *See, e.g.*, David Markell & John Knox, *Evaluating Citizen Petition Procedures: Lessons from an Analysis of the NAFTA Environmental Commission*, 47 TEX, INT'L L.J. 505 (2012); David Markell, *The Role of Citizen Spotlighting Procedures in Promoting Citizen Participation, Transparency, and Accountability*, 45 WAKE FOREST L. REV. 425 (2010); David L. Markell, *Understanding Citizen Perspectives on Government Decision-Making Processes as a Way to Improve the Administrative State*, 36 ENVTL. L. 651 (2006); David Markell, *"Slack" in the Administrative State and its Implications for Governance: The Issue of Accountability*, 84 OREGON L. REV. 1, 4–5 (2005); Hammond & Markell, *supra* note 2; Markell & Tyler, *supra* note 2.

citizens.[31] It is important to focus specifically on the accountability aspects of Dave's "agency mechanics" work because of its profound influence on the literature and agency practice.

Dave cares deeply about whether agencies and the regulations that they write and enforce actually perform in a way that the public wants them to perform. Indeed, he is so devoted to subject—and is so respected for his views on the subject—that he was selected to direct the process through which citizens in the three countries that are members of the North American Free Trade Agreement could petition their governments for a failure to adequately enforce their environmental laws.[32]

As with his enforcement and compliance work, Dave's writing in this area is prolific, and I focus here on just a few examples. One piece that stands out for me is *"Slack" in the Administrative State*, in which Dave takes on the much-discussed topic of agency discretion and evaluates it from a refreshingly different and important angle. As Dave notes in the piece, a large chunk of the administrative law literature wrestles with the subject of how much discretion agencies should have.[33] "Slack," specifically, is the concern, shared by some scholars and judges, that agencies have too much "unchecked administrative power."[34] Dave notes a belief in much of the literature that agencies have moved toward greater accountability, but he tends to side with the skeptics in worrying that trends toward accountability are slowing or even moving problematically backwards.[35] Here, as with his articles focused more closely on enforcement and compliance, Dave "digs deeper into critical aspects of the actual operation of the administrative state" to analyze these worrying developments.[36] Dave specifically explores how the EPA's devolution of a large number of implementation responsibilities to the states, and its use of a broader toolbox of compliance tools, can reduce transparency and openness. For example, Dave notes that this devolution has made the monitoring of governmental activity and the evaluation of its effectiveness much more difficult, since states have different modes of collecting and sharing data, and EPA often provides little data to

---

31. *"Slack" in the Administrative State*, *supra* note 30, at 4–5 (citing Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1, 7 (1998)).

32. *See* David L. Markell curriculum vitae, *supra* note 1.

33. *"Slack" in the Administrative State*, *supra* note 30, at 2.

34. *Id.* (quoting Ronald M. Levin, *Understanding Unreviewability in Administrative Law*, 74 MINN. L. REV. 689 (1990)).

35. *Id.* at 4–5.

36. *Id.* at 6.

the states—or inconsistent data.[37] And in an example of the thoroughness of Dave's research—and the extent to which he delves into actual, on-the-ground agency action—Dave describes his review of the EPA's annual "enforcement accomplishments reports" from the years 2000 through 2004. He concludes that the reports leave much room for improvement in terms of "providing information on state activities or accomplishments" in enforcing federal environmental laws.[38]

In "*Slack" in the Administrative State,* Dave also explores the EPA's move to expand its enforcement and compliance toolbox by using more "contractarian" approaches to environmental law, for example, which involve negotiating with regulated entities for performance results rather than using traditional "sticks" and penalties.[39] He also explores the more general move toward performance-based regulation, in which agencies focus more on compliance rates than, say, the number of enforcement actions taken in a year.[40] Dave notes how these types of approaches can reduce accountability by giving regulated actors more control over the process and creating new metrics that require new and potentially complex definitions, monitoring, and measurement.[41] These new metrics also give regulated actors more compliance flexibility.[42]

In another leading article on agency accountability to the public, Dave and Tom Tyler examine what types of approaches to citizen engagement will actually lead citizens to "come forward and be part of government decision-making."[43] As the authors note, there have been many calls in the literature and beyond for enhanced citizen participation, but these calls often ignore important questions such as whether citizens will actually participate, and whether this participation will enhance governance as anticipated.[44] Dave and Tom accordingly identified eleven mechanisms for citizen participation in governance—focusing specifically on "participat[ion] in environmental enforcement and compliance"—and surveyed people to determine which mechanisms they preferred, why they preferred them, and how satisfied they were

---

37. *Id.* at 27–38.
38. *Id.* at 35.
39. *Id.* at 53–57.
40. *Id.* at 60–61.
41. *Id.* at 55–67.
42. *Id.* at 67.
43. Markell & Tyler, *supra* note 2, at 3.
44. *See id.* at 2–3.

with these participatory opportunities.[45] They also unpacked two specific processes for citizen participation—citizen suits under which individuals and nonprofits may use the courts to address alleged violations of environmental laws, and the process that Dave oversaw for the Commission for Environmental Cooperation—citizen submissions alleging insufficient government enforcement of environmental laws.[46] They selected these two processes—and asked specific survey questions about these processes—to compare and contrast the potential mechanisms for citizen involvement in environmental law, highlighting their different features. Citizen suits can result in actual enforcement of an environmental law, for example, whereas CEC citizen submissions simply put pressure on a government by "spotlighting" inadequate enforcement of the government's laws.[47]

With respect to citizens' surveyed preferences for influencing the enforcement of environmental laws, the eleven options provided in the survey ranged from filing a citizen suit or a citizen submission through the CEC to options such as "[i]nformal contact with the violator" and "shaming opportunities."[48] Dave and Tom found that citizens largely preferred citizen suits for enforcement actions involving individual violators of environmental laws, whereas they preferred shaming mechanisms for widespread violations.[49] And in terms of why respondents preferred these mechanisms, they commonly cited to the importance of "factually-based decisions" and consistent application of the law, as well as "evidence that decision makers are trustworthy," among other reasons.[50] The authors noted that these results tended to comport with the procedural justice literature, in that it demonstrated heavier weight placed by citizens on the fairness of procedures themselves than the actual outcomes of enforcement actions.[51]

When Dave and Tom homed in on the CEC and citizen suits, in particular, they noted that respondents placed very different values on each of the two processes. Respondents indicated that they cared most strongly about neutrality and trust in decisionmakers for citizen suits and the extent to which citizens could adequately voice their concerns and receive respect and courtesy through the process

45. *Id.* at 6–7.
46. *Id.* at 7.
47. *Id.* at 8–9.
48. *Id.* at 16–17.
49. *Id.* at 17.
50. *Id.* at 20.
51. *Id.* at 21.

for the CEC citizen submission.[52] As Dave and Tom observe, this is interesting because it shows that citizens prioritize different values in different types of enforcement procedures; it also reinforces the focus on procedures rather than outcomes.[53] Ultimately, a "key insight" of this is that context matters with respect to citizen participation in environmental enforcement.[54] There is no universal recipe for an agency to receive good marks when it comes to accountability. Rather, citizens have important, nuanced views about appropriate agency responses and actions.

Dave and Tom's empirical work on citizen involvement in agency processes—in this case, environmental enforcement—brings accountability work in the scholarly and policy realms to a new level. It reminds us that we cannot assume that simply offering one tool for citizen input within a process will satisfy the public's demand for meaningfully influencing policy. The tool must be designed properly to address the specific values that people seek within an agency process, and often these tools will vary depending on the action begin taken by the agency. These lessons are critical to better understanding and developing tools for meaningful citizen engagement.

Dave continued his important work on citizen involvement in agency processes in *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*—an article that he published with Emily Hammond.[55] Here, Dave and Emily delve into another mechanism for citizen involvement in agency action—the petition to withdraw. A petition to withdraw is what the authors place within the category of "fire-alarm" tools. These tools warn an agency that its actions are fundamentally inadequate in some way and that it must specifically respond to the concerned stakeholders.[56] Through a withdrawal petition, citizens argue that states imbued with EPA authority to implement federal environmental statutes are no longer fulfilling their duties and responsibilities; the petition asserts that the EPA should therefore withdraw states' authority under the statute.[57]

Dave and Emily use the petition to withdraw as an example of a much larger, under-studied phenomenon—the use of non-judicial mechanisms to ensure agency legitimacy. The authors develop a theoretical framework of the ways in which judicial review polices

52. *Id.* at 23–24.

53. *Id.* at 25.

54. *Id.* at 28.

55. Hammond & Markell, *supra* note 2.

56. *Id.* at 356–57.

57. *Id.* at 317.

agency legitimacy—by ensuring that agencies follow required procedures, provide adequate reasons for their actions, and hew to the statutes they enforce, for example.[58] And Dave and Emily helpfully compare this framework to an alternative means of keeping agencies honest—"inside-out legitimacy," or the "intrinsic" legitimacy of specific procedures followed by agencies. They propose that there are measures similar to those used in judicial review that allow us to objectively assess an administrative procedure's legitimacy even when a court is unlikely to review that procedure. These include: 1) the way in which the procedure is used, including how often it is used (a lack of use might suggest a perception that the procedure lacks legitimacy); 2) whether the agency responds and gives adequate reasons for its response when the procedure is used—even if the agency knows that its actions are unlikely to be reviewed by a court; and 3) the extent to which a particular procedure yields substantive outcomes in line with a statute—such as whether it is ever possible for citizens to change an agency's approach by using the procedure.[59]

Having developed this important theoretical framework for assessing the legitimacy of agency procedures even absent court review, Dave and Emily apply this framework to citizen petitions to withdraw—an area in which judicial review is typically unavailable.[60] To conduct this analysis, they survey *all* citizen petitions to withdraw state authority over a federal environmental statute through a specific date in 2011. Based on this survey and complex coding, they analyze the extent to which the withdrawal procedure exhibits "inside-out legitimacy" under the three metrics developed by the authors—how the procedure is used, responsiveness and reason giving, and substantive outcomes.[61] The fundamental question addressed is whether this process exhibits intrinsic legitimacy despite the lack of an "external mechanism for legitimacy" in the form of judicial review.[62] And their result is a happy one. The authors conclude that "the extent to which the petition process shows indicia of legitimacy is remarkable,"

---

58. *Id.* at 321–27.

59. *Id.* at 328–30.

60. The authors note several reasons for scant judicial review of petitions to withdraw. Although under the APA citizens may sue agencies to "compel agency action unlawfully withheld or unreasonably delayed," when agencies lack a clear deadline, it is often difficult to meet this standard. Therefore, even when agencies delay response to a citizen petition to withdraw for years—as they often do—this does not typically rise to the standard of unreasonable delay. Further, courts are hesitant to force agencies to take actions that are wholly discretionary, and the decision to withdraw a state's authority to enforce a federal environmental statute is one such action. *Id.* at 338–339.

61. *Id.* at 342–53.

62. *Id.* at 342.

especially considering the fact that the EPA almost never withdraws states' authority under a federal statute.[63] Despite lacking this "nuclear" threat, states regularly change their programs that implement federal environmental statutes in response to a petition to withdraw and subsequent EPA pressure on the state.[64] Dave and Emily also explore how the legitimacy of this process could even further improve by, for example, enhancing transparency not just to the stakeholders who petition for withdrawal but also to the broader public, and responding more quickly to petitions.[65]

Administrative Proxies for Judicial Review exemplifies the strengths in all of Dave's work: Dave and Emily explore in depth an agency process for citizen participation in environmental administrative work, provide a framework for assessing this process—and agency legitimacy more broadly—and apply it in a real setting, which in this case is a portfolio of fifty-eight citizen petitions for withdrawal. They also provide meaningful lessons for how this process, and similar agency processes that rarely see the light of a courtroom, could be even more legitimate.

III. CONCLUSION

The breadth and depth of Dave's scholarship on administrative and environmental law is simply staggering. If someone were to arrive in a newly-populated territory with a blank legal slate and ask for one repository of work with lessons for design and implementation of an administrative state, I would point them to the work of Dave Markell. But of course, we rarely, if ever, operate on such a blank slate, and I would give the same response to someone asking for a go-to expert on how to reform an existing administrative state in a positive way—enhancing its accountability to the public, its effectiveness in terms of achieving the outcomes envisioned by a statute, and its overall fairness to those subjected to rules and seeking enforcement of rules. Dave provides sophisticated theoretical frameworks for understanding and assessing the administrative state and real-world examples of how those frameworks operate. He offers valuable and innovative metrics, lessons backed up by exhaustive empirical research, and accessible examples from case studies. And this is only the tip of the iceberg. Dave is also a renowned voice in the world of climate law, with leading articles on climate adaptation. The administrative

63. *Id.* at 354.

64. *Id.* at 353.

65. *Id.* at 359–63.

and environmental law and policy worlds owe a great tribute to Dave for the meaningful influence he has had. In a nod toward Dave's former athletic prowess—he once tried out for the Phillies—it is particularly appropriate to say that he advanced the ball in these fields in a major and lasting way.

TRIBUTE TO DAVE MARKELL

MICHAEL B. GERRARD*

I first met Dave Markell around 1988, when he moved to New York to direct the Division of Environmental Enforcement of the New York State Department of Environmental Conservation (DEC). This was an era when the federal Superfund and its state equivalents were rapidly growing in importance; the laws passed in the wake of the Love Canal disaster of the late 1970s were finally growing teeth. Dave led New York's efforts to drive the cleanup of contaminated sites by using both civil and criminal remedies. He established DEC's criminal enforcement unit and doubled the number of criminal cases developed and referred annually to prosecutors. His work was so effective that for a time he was called upon to direct DEC's Office of Environmental Remediation, which ran the nation's largest state-level hazardous waste cleanup program. Massive amounts of money were at stake in this program, together with legions of lawyers and consultants, and Dave handled it masterfully.

In 1992, Dave left government and entered academia. He moved to the other side of town in Albany and joined the faculty of Albany Law School, where he spent the next decade. I saw him frequently, and in 1996 he and I co-chaired a major event that he hosted at the law school commemorating the 25th anniversary of the DEC. The current and all past DEC Commissioners came, as did a large number of current and former DEC staff and many lawyers and others who practiced before the department. It was clear that everyone looked to Dave as one of the thought leaders in the field and as someone who had helped establish many of the programs that continue to be of such importance to improving and preserving the quality of the New York environment. During that period Dave also wrote what became the standard treatise on New York State administrative practice and procedure, to which I referred often as a practitioner. Additionally, he took on leadership positions in the Environmental Law Section of the New York State Bar Association.

I saw less of Dave after he moved to Florida in 2002, but I continued to rely on him whenever I could, especially after I moved into academia myself in 2009. In 2014, he co-authored the chapter on civil remedies for a book I edited, *Global Climate Change and U.S. Law*. The next year it was my great pleasure to host him as a David Sive Visiting Scholar at the Sabin Center for Climate Change

* Andrew Sabin Professor of Professional Practice Director, Sabin Center for Climate Change Law, Columbia Law School.

Law, which I direct. His office (a cubbyhole with a window, more precisely) was right next to mine, and it was wonderful to see him almost every day for the several months he was with us. He wrote a terrific paper on Florida's efforts to adapt to sea level rise—an endeavor that has important implications for New York.

Throughout it all, I found Dave to be a kind and thoughtful man with a deep dedication to improving the quality of the human and natural environment, using available legal tools and developing new ones to achieve that end, and educating generations of lawyers in the use of those tools.

ENHANCING ENVIRONMENTAL ENFORCEMENT BY EXAMPLE AND ERUDITION

ROBERT L. GLICKSMAN*

I. INTRODUCTION 191
II. DAVE MARKELL'S FEDERAL AND STATE ENVIRONMENTAL ENFORCEMENT WORK............................ 193
III. DAVE MARKELL'S ROLE IN INTERNATIONAL ENVIRONMENTAL ENFORCEMENT...................................... 194
IV. THE START OF A DECADES-LONG COLLABORATION........... 195
V. DAVE MARKELL'S INNOVATIVE ENVIRONMENTAL LAW SCHOLARSHIP 197
VI. MY REWARDING LAW REVIEW COLLABORATIONS WITH DAVE MARKELL.. 202
VII. CONCLUSION... 210

I. INTRODUCTION

As a former head of EPA's Office of Enforcement and Compliance Assurance has noted, compliance with environmental regulatory obligations is a prerequisite to achieving the public health benefits of laws that control pollution.[1] Compliance is not a given, however, and it is unlikely to occur at desirable levels absent effective enforcement.[2] Thus, it seems "self-evident . . . that enforcement is important,"[3] because "[r]ules are no good without enforcement. People just do not work that way."[4] What is not self-evident is how to fashion effective regulatory enforcement and compliance programs. Fortunately, the enforcement of environmental law has been the focus of considerable scholarly attention aimed at improving compliance with environmental laws and promoting regulatory goals such as enhancing protection of public health.

---

* J.B. & Maurice C. Shapiro Professor of Environmental Law, The George Washington University Law School.

1. Cynthia Giles, *Next Generation Compliance: Environmental Regulation for the Modern Era, Introduction* 5 (2020), http://eelp.law.harvard.edu/wp-content/uploads/Cynthia-Giles-Intro-FINAL.pdf ("Compliance is where the rubber meets the road. We only get public health benefits from our laws and regulations when the regulated companies do what the rules require.").

2. Enforcement is not the only way to foster compliance. Government assistance, such as through providing information and advice, is also an important compliance promotion device. *See, e.g.*, *Compliance Assistance Centers*, ENVTL. PROT. AGENCY, https://www.epa.gov/compliance/compliance-assistance-centers (last visited Dec. 22, 2020).

3. Craig N. Johnston, *An Essay on Environmental Audit Privileges: The Right Problem, the Wrong Solution*, 25 ENVTL. L. 335, 338 (1995).

4. Roy Snell, *Argue All You Want, But You Cannot Replace a Rule-Based System with Ethics to Achieve a Nonrule-Based System*, 12 J. HEALTH CARE COMPLIANCE 3, 4 (2010).

David Markell, whose work this volume celebrates, was among the most prominent and impactful of the scholars who have devoted their efforts to improved understanding of environmental enforcement. Dave began his legal career as an enforcement official for federal and state agencies (and later in the international context as well). When Dave moved into legal academia, he drew on the experience he acquired and the lessons he learned as an enforcement official to produce an impressive body of scholarly work on environmental enforcement. Although Dave published on other environmental and administrative law subjects,[5] I would argue that he made his broadest and most lasting contributions through the wealth of books, book chapters, and articles that addressed environmental enforcement from virtually every conceivable angle.

This tribute to Dave's enforcement-related work reflects my experiences as a reader and beneficiary of Dave's work and as a frequent collaborator, both in Dave's role as an enforcement official and in a rewarding series of co-authored scholarly writing projects. It begins with a brief description of Dave's time as an enforcement official. Most of this piece is devoted, however, to an exploration of Dave's academic contributions to a better understanding of a host of legal and policy issues surrounding environmental enforcement. A series of topics recur in Dave's work, including federalism issues in environmental enforcement and the appropriate mix of deterrence-based and compliance assistance approaches to improving compliance. Dave's scholarship reflects a consistent, abiding commitment to important administrative law values such as transparency, accountability, and public participation.

Dave's work is characterized by common elements beyond the particular topics, issues, and values that regularly captured his attention. Throughout his career, Dave appreciated the value of combining theory and practice. Much of his work provided novel conceptual models and insights,[6] which he then tested by applying them to deficient existing regulatory programs or proposed initiatives to improve those programs.[7] Likewise, Dave frequently backed up his analyses and tested his hypotheses with empirical

---

5. *See, e.g.,* David Markell, *An Overview of TSCA, Its History and Key Underlying Assumptions, and Its Place in Environmental Regulation*, 32 WASH. U. J. L. & POL'Y 333 (2010); David L. Markell, *The Future Application of the Public Trust Doctrine in New York State: Legislative Initiatives and Beyond*, 4 ALB. L.J. SCI. & TECH. 97 (1994).

6. *See, e.g.*, David L. Markell & Robert L. Glicksman, *Dynamic Governance in Theory and Application, Part I*, 58 ARIZ. L. REV. 563 (2016) [hereinafter *Dynamic Governance*].

7. *See, e.g.*, Robert L. Glicksman et al., *An Empirical Assessment of Agency Mechanism Choice*, 71 ALA. L. REV. 1039 (2020).

investigations to verify the utility of that theoretical work.[8] He regularly moved beyond the conventional wisdom to provide provocative and creative new takes on long-standing issues. He was consistently aware of the need for law and policy to adapt to a dynamic world, identifying the triggers (legal, technological, and otherwise) for change and the challenges and opportunities those triggers posed for policymakers.[9] Although he often called for further research on the issues that interested him,[10] he always took a stab at providing effective but workable recommended solutions to those challenges. Dave's commitment to the values and ideals referred to above was unstinting. He did not, however, tilt at windmills. Rather, he preferred to lay out road maps for legal and policy reforms that were rooted in the careful, thorough, and sophisticated analysis that was his hallmark.

Environmental enforcement is indeed important. Dave Markell's important work in this area will continue to influence policymakers and scholars invested in regulatory redesign and the success of environmental regulatory programs for many years.

II. DAVE MARKELL'S FEDERAL AND STATE ENVIRONMENTAL ENFORCEMENT WORK

By the time my professional path crossed with Dave Markell's, he had already accumulated enough expertise and experience in environmental enforcement to have endowed him with him a lifetime achievement award. Dave's service as Assistant Regional Counsel at one of EPA's Regional Offices had garnered superior performance and special achievement honors.[11] As a trial attorney at the Land and Natural Resources Division of the U.S. Department of Justice, he had tried the first Superfund[12] remedy case and established guidelines for negotiating Superfund settlements.[13]

---

8. *See, e.g.,* David L. Markell & Tom R. Tyler, *Using Empirical Research to Design Government Citizen Participation Processes: A Case Study of Citizens' Roles in Environmental Compliance and Enforcement*, 57 U. KAN. L. REV. 1 (2008).

9. *See, e.g.*, *Dynamic Governance*, *supra* note 6; David L. Markell & Robert L. Glicksman, *A Holistic Look at Agency Enforcement*, 93 N.C. L. REV. 1, 6–7 (2014).

10. *See, e.g.*, David L. Markell, *The Role of Local Governments in Environmental Regulation: Shoring Up Our Federal System*, 44 SYRACUSE L. REV. 885, 922 (1993) [hereinafter *Shoring Up*].

11. Curriculum Vitae for David L. Markell, FLA. STATE UNIV. COLL. LAW, at 3, https://law.fsu.edu/sites/g/files/upcbnu1581/files/Faculty/Related%20Links/Markell_David_CV_040819.pdf [hereinafter Markell CV] (last visited Dec. 22, 2020).

12. Congress established the Superfund in 1980 by enacting the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (2018), to help finance the remediation of hazardous substance releases. The formal name of the fund is the Hazardous Substance Superfund. 26 U.S.C. § 9507 (2018).

13. Markell CV, *supra* note 6.

Dave continued making his mark on Superfund litigation and cleanups as Director of the Division of Environmental Enforcement at the New York State Department of Environmental Conservation and then as Acting Deputy Commissioner of the Department's Office of Environmental Remediation.[14] With a wealth of practical experience under his belt, Dave moved into academia by joining the faculty at the Albany Law School in 1992.[15]

III. DAVE MARKELL'S ROLE IN INTERNATIONAL ENVIRONMENTAL ENFORCEMENT

Naturally, Dave's scholarship focused on environmental enforcement, the area in which he had earned his legal spurs, from the very beginning. Dave's impressive work in a field we shared (environmental law) came to my attention early in his academic career. I did not connect personally with Dave, however, until I became a consultant for the Secretariat for the North American Commission on Environmental Cooperation (CEC). The CEC was created under the auspices of the North American Agreement on Environmental Cooperation (NAAEC),[16] which was a side agreement of the North American Free Trade Agreement (NAFTA).[17] Between 1998 and 2000, Dave was the Director of the CEC's Submissions on Enforcement Matters Unit.[18]

As Dave himself noted, the CEC "(1) is the 'first international organization created to address the environmental aspects of economic integration;' (2) has 'innovative tools and almost unlimited jurisdiction to address regional environmental problems'; and (3) 'provides unprecedented opportunities for participation by civil society at the international level.'"[19] The Environmental Law Institute called the submissions process "[b]y far the most innovative and substantial mechanism created within the NAAEC for fostering transparency and public participation."[20] As the CEC describes it, "[a] submission is a written document filed by the

14. *Id.* at 2-3.

15. *Id.* at 1.

16. North American Agreement on Environmental Cooperation, art. VIII-XIX, Sept. 14, 1993, 32 I.L.M. 1480.

17. North American Free Trade Agreement, Dec. 17, 1992, 107 Stat. 2057, 32 I.L.M. 289.

18. Markell, CV, *supra* note 11, at 2; David L. Markell, *Governance of International Institutions: A Review of the North American Commission for Environmental Cooperation's Citizen Submissions Process*, 30 N.C. J. INT'L L. & COM. REG. 759, 759 n.d1 (2005) [hereinafter *CEC Governance*].

19. Markell, *CEC Governance*, *supra* note 18, at 760.

20. *Id.* (quoting ENVTL. L. INST., RESEARCH REPORT: ISSUES RELATING TO ARTS. 14 & 15 OF THE N. AM. AGREEMENT ON ENVIRONMENTAL COOPERATION 4 (2003)).

public with the Secretariat asserting that Canada, Mexico or the United States is failing to effectively enforce its environmental law."[21] Dave's leadership of the Submissions Unit reflected his longstanding commitment to promoting values he regarded as critical to effective democratic governance, including transparency and public participation, in environmental regulation and environmental enforcement in particular.[22]

IV. THE START OF A DECADES-LONG COLLABORATION

During Dave's tenure as head of the CEC's Submission Unit, I worked with him on a variety of citizen submissions, including submissions concerning enforcement of the Migratory Bird Treaty Act, state regulation of underground storage tanks, controls to protect water quality in the Great Lakes, and international air pollution issues relating to § 115 of the Clean Air Act.[23] What immediately impressed me in my collaborations with Dave were his passion about environmental protection and enforcement, his commitment to careful evaluation of every detail, legal and factual, of the submissions we addressed together, his ability to consider all sides of an issue without prejudging the merits, and his dedication to providing a meaningful avenue for concerned citizens to participate in government decisions with potential impacts on their lives.

At the time that Dave and I worked together on CEC issues, I had recently taken over as lead co-author of the environmental law casebook that Fred Anderson, Dan Mandelker, and Dan Tarlock had pioneered as one of the first generation of environmental law

---

21. Council for Environmental Cooperation, *Submissions on Enforcement Matters*, COMM'N FOR ENVTL COOPERATION (Dec. 14, 2020), http://www.cec.org/submissions-on-enforcement/.

22. Dave nevertheless expressed some skepticism about the efficacy of the CEC's implementation of the submissions process. *See* Markell, *CEC Governance*, *supra* note 18, at 780–93. He explored the lessons provided by the operation of the CEC's Submissions Unit in other work. *See, e.g.*, John H. Knox & David L. Markell, *Evaluating Citizen Petition Procedures: Lessons from an Analysis of the NAFTA Environmental Commission*, 47 TEX. INT'L L.J. 505 (2012); David L. Markell, *The North American Commission for Environmental Cooperation After Ten Years: Lessons About Institutional Structure and Public Participation in Governance*, 26 LOY. L.A. INT'L & COMP. L. REV. 341 (2004); David L. Markell, *The Commission for Environmental Cooperation's Citizen Submission Process*, 12 GEO. INT'L ENVTL. L. REV. 545 (2000); David L. Markell, *Enhancing Citizen Involvement in Environmental Governance*, 18 NAT. RESOURCES & ENV'T 49 (Spring 2004). Dave also co-edited a book on the CEC. GREENING NAFTA: THE NORTH AMERICAN COMMISSION FOR ENVIRONMENTAL COOPERATION (David L. Markell & John Knox eds., 2003).

23. 42 U.S.C.A. § 7415 (West).

casebooks.[24] Neither of the first two editions of the book had a chapter dedicated to environmental enforcement. I decided that because fair and effective enforcement has the capacity to make or break an environmental (or any other) regulatory program, the third edition should include such a chapter, which I wrote, notwithstanding my lack of practical experience in that area.[25] When the time arrived to prepare a fourth edition, the role of two of the original co-authors had been reduced, creating a need for a new co-author. It took Dan Tarlock and I about 20 seconds to agree that only one person fit the bill, and that was Dave Markell.

Fortunately, Dave, who by then had moved to the faculty at the Florida State University College of Law, was interested in joining the book and accepted our offer to do so. Dave was the obvious choice to reimagine the enforcement chapter, which he expanded and deepened based on both his practical experience and his theoretical conception of the role and operation of environmental enforcement.[26] In some of the subsequent editions, Dave also took responsibility for the water pollution and international law chapters. Dave remained a co-author through the most recent edition, providing critical input throughout on the content of many of the book's chapters.[27] As was his wont as head of the CEC's Submissions Unit, Dave approached his work on the casebook from a non-ideological perspective, ensuring that his chapters reflected open-minded consideration of environmental regulatory issues from a variety of perspectives and inspiring the rest of us to do likewise.

Our work together on the casebook led to a series of collaboratations over the years on a series of law review articles on environmental enforcement that resulted in some of the scholarship of which I am proudest. Dave's stamp on all of those works is both indelible and unmistakable.

---

24. FREDERICK R. ANDERSON ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY (1984).

25. FREDERICK R. ANDERSON, ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY, ch. IX (3d ed. 1999).

26. ROBERT L. GLICKSMAN, DAVID L. MARKELL, DANIEL R. MANDELKER, A. DAN TARLOCK, & FREDERICK R. ANDERSON, ENVIRONMENTAL PROTECTION: LAW AND POLICY ch. IX (4th ed. 2003) [hereinafter ENVIRONMENTAL PROTECTION (4th ed.)].

27. ROBERT L. GLICKSMAN, DAVID L. MARKELL, WILLIAM W. BUZBEE, DANIEL R. MANDELKER, DANIEL BODANSKY, & EMILY HAMMOND, ENVIRONMENTAL PROTECTION: LAW AND POLICY (8th ed. 2019).

V. DAVE MARKELL'S INNOVATIVE ENVIRONMENTAL LAW SCHOLARSHIP

Although Dave's scholarship at Albany and Florida State covered a significant swath of the environmental law terrain, much of his work focused on environmental enforcement. His practical experience and deep thinking about enforcement issues made him one of the most preeminent experts on enforcement issues for decades. His work reflected a matchless blend of the practical and the theoretical, providing valuable guidance to practitioners, policymakers, and other environmental law scholars. Dave's enforcement work is marked by recurrent themes concerning the structural configuration of environmental enforcement programs and the need for those programs to foster key environmental law values.

Dave always had an abiding interest in how to allocate environmental enforcement authority among and within different levels of government. One of his first works after arriving at Albany Law addressed the role of local governments in environmental regulation.[28] Dave highlighted the problems stemming from the combination of increased federal mandates and decreased federal funding to the states and localities.[29] Among other things, he urged a systematic assessment of where federal financial assistance to local governments was most needed and the adoption of a comprehensive rather than a media-specific perspective on regulatory issues, including centralized rather than media-specific implementation of the enforcement function.[30] Characteristically, Dave ended the article by identifying a series of cutting edge issues and calling for further research to help resolve them.[31]

Many of Dave's other works also provided key insights on how to allocate environmental regulatory authority between the federal government and the states and localities. One early article analyzed how to improve the federal/state relationship in administration

28. Markell, *Shoring Up*, *supra* note 10. Dave addressed state environmental law issues in various works. *See, e.g.*, David L. Markell, *Thinking Globally and Acting Locally: Reflections About the Possible Impacts of "Globalization" in the Evolution of SEQRA*, 65 ALB. L. REV. 461 (2001); David L. Markell, *Some Overall Observations About the 1996 New York State Environmental Bond Act and a Closer Look at Title 5 and Its Approach to the "Brownfields" Dilemma*, 60 ALB. L. REV. 1217 (1998) [hereinafter *Brownfields*]; David L. Markell, *Regulatory Reform at the State Department of Conservation*, 1 ALB. L. ENVTL. OUTLOOK 8 (1995).

29. Markel, *Shoring Up*, *supra* note 10, at 888, 907. Dave explored the impact of unfunded mandates in other work. *See, e.g.*, Markell, *Brownfields*, *supra* note 28, at 1223.

30. Markell, *Shoring Up*, *supra* note 23, at 910, 914–15.

31. *Id.* at 922.

of the Superfund statute.[32] Dave's recommendations for achieving that goal drew upon not only his own experience as a Superfund litigator, but also on interviews with a wide spectrum of government officials, citizen groups, and responsible parties.[33] He urged greater reliance on "capable" states, elimination of financial incentives leading to conflicts between federal and state enforcers, and better communication between the two levels of government.[34]

Another frequently cited article noted the emergence of the states as central environmental regulatory actors and urged greater recognition of the potential for state regulatory innovations to serve as models for other states and for federal regulators.[35] Dave paid particular attention to the state of New York's "opening up" of the enforcement and compliance strategic planning process to ensure that environmental enforcement not only be fair and consistent, but also that it be perceived as such.[36] He posited that "[m]embers of the regulated community and interested citizens are uniquely positioned to offer invaluable insights concerning both how enforcement or compliance needs should be prioritized and how best to structure implementation of enforcement and compliance strategies so that they are of maximum effect."[37]

Dave spent considerable intellectual capital thinking about how to optimize environmental compliance. A question to which he frequently returned was what roles deterrence and compliance assistance should play in an effective enforcement regime. One of Dave's landmark articles was published in the *Harvard Environmental Law Review* in 2000.[38] The article addressed that question in the familiar (to Dave) context of a reimagined federal-state relationship. Dave found a "great divide between the federal government's promise of a deterrence-based enforcement"

---

32. David L. Markell, *The Federal Superfund Program: Proposals for Strengthening the Federal/State Relationship*, 18 WM. & MARY J. ENVTL. L. 1 (1993) [hereinafter *Federal Superfund*]. Dave continued to address these issues in subsequent work. *See, e.g.*, David L. Markell, *"Reinventing Government": A Conceptual Framework for Evaluating the Proposed Superfund Reform Act of 1994's Approach to Intergovernmental Relations*, 24 ENVTL. L. 1055 (1994). Dave's focus on improving federal-state partnerships extended beyond the context of the Superfund. *See, e.g.*, David L. Markell, *Preliminary Thoughts on Future Policy Directions for the Management of Solid and Hazardous Waste,* 7 ALB. L.J. SCI. & TECH. 119 (1996).

33. Markell, *Federal Superfund*, *supra* note 32, at 5–6.

34. *Id.* at 81–82.

35. David L. Markell, *States as Innovators: It's Time for a New Look to Our "Laboratories of Democracy" in the Effort to Improve Our Approach to Environmental Regulation*, 58 ALB. L. REV. 347 (1994).

36. *Id.* at 408–09.

37. *Id.* at 409.

38. David L. Markell, *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality*, 24 HARV. ENVTL. L. REV. 1 (2000) [hereinafter *Reinvented*].

and compliance assistance program and the extent to which state environmental agencies conducted their enforcement initiatives consistent with federal guidance.[39] To bridge that divide, he suggested a suite of solutions. These included strengthening deterrence-based enforcement nationwide by insisting that states meet EPA expectations; creating incentives for states to strengthen their use of deterrence-based enforcement; engaging in limited, direct federal enforcement to prompt similar activity by the states; withdrawing state authorization to implement federal pollution control programs;[40] and "spotlighting" effective federal and state enforcement practices.[41] Building on that work, Dave later published a book on enforcement with Clifford Rechtschaffen. Together, they analyzed strategies for enhancing compliance, the appropriate roles for federal and state actors in pursuing those strategies, and what the appropriate mix of deterrence and cooperation should be.[42]

Dave's important article on "slack" in the administrative state exemplifies his longstanding interest in legitimacy and transparency as key governance values.[43] Dave posited that while there are numerous signals that our system of governance is becoming increasingly open and transparent, important features of the administrative state have the potential to slow such trends, and even to shift our regulatory apparatus in the opposite direction, toward reduced openness and accountability and diminished leverage or influence for interested citizens.[44]

In particular, Dave pointed to devolution of regulatory authority to the states and EPA's increased reliance on compliance assistance and compliance incentive programs as developments that portended challenges in monitoring the performance of regulated entities and greater difficulty for public understanding of what government enforcers were doing and what they were accomplishing.[45] He

---

39. *Id.* at 7.

40. *Id.* at 70. Dave and my colleague Emily Hammond later explored program withdrawal as a form of internal oversight triggered by citizen petitions seeking such withdrawal. *See* Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313 (2013).

41. Markell, *Reinvented*, *supra* note 38, at 70. Dave was fond of the concept of spotlighting. *See, e.g.*, David L. Markell, *The Role of Spotlighting Procedures in Promoting Citizen Participation, Transparency, and Accountability*, 45 WAKE FOREST L. REV. 425 (2010).

42. *See generally* CLIFFORD RECHTSCHAFFEN & DAVID L. MARKELL, REINVENTING ENVIRONMENTAL ENFORCEMENT AND THE STATE/FEDERAL RELATIONSHIP (2003).

43. *See generally* David L. Markell, *"Slack" in the Administrative State and Its Implications for Governance: The Issue of Accountability*, 84 OR. L. REV. 1 (2005) [hereinafter *Slack*].

44. *Id.* at 4–5.

45. *Id.* at 23–65.

concluded by urging more careful consideration of the implications for open government of these otherwise beneficial developments in environmental regulatory enforcement.[46]

Dave's interest in promoting legitimacy, transparency, and democratic participation in governance took an interdisciplinary turn in his 2006 article that explored the "procedural justice" literature developed by psychology scholars.[47] In that article, he tackled the "extraordinarily difficult" question of how institutions can build legitimacy.[48] He argued that one critical avenue for doing so is to create more significant opportunities for public involvement in agency decision-making "to enhance accountability and transparency in governance, contribute to more informed, and thereby improved results, and foster a greater degree of connection between the governed and the governing (and a blurring of the line between the two) that leads to greater social capital and societal trust."[49]

Dave set out in that article to explore "the design of governance mechanisms that are intended to incorporate meaningful citizen involvement as a strategy to enhance legitimacy."[50] He drew on the psychology literature on "procedural justice," which asserts that "legitimacy should not be assessed solely on the basis of the distributional implications of decision-making processes," but also on "the extent to which a decision-making process is 'procedurally just,'" even if it leads to outcomes that affected parties deem undesirable.[51] Dave concluded that "if government wants to gain legitimacy for its actions . . . , it would seem to be particularly helpful to it to have decision-making processes that are fair and perceived as such."[52] He then suggested that the CEC's "highly innovative" citizen submission program "is one possible model for a mechanism that, if effective, will enhance legitimacy of and confidence in government enforcement practices."[53] As he often did, Dave ended this piece with a call for empirical research to confirm (or refute) the utility of applying insights from the procedural justice literature to enhance the legitimacy of environmental regulatory enforcement.[54]

---

46. *Id.* at 65–67.

47. *See generally* David L. Markell, *Understanding Citizen Perspectives on Government Decision-Making Processes as a Way to Improve the Administrative State*, 36 ENVTL. L. 651 (2006).

48. *Id.* at 653.

49. *Id.* at 654.

50. *Id.*

51. *Id.* at 678.

52. *Id.* at 679.

53. *Id.* at 679–80.

54. *Id.* at 707–08.

Dave followed up with survey-based empirical work in conjunction with psychology professor Tom Tyler, focusing again on the implications for environmental enforcement of the procedural justice literature.[55] They suggested that "empirical governance, notably systematically studying the preferences of likely process users in different contexts, can help us learn about the types of processes interested stakeholders would be inclined to use and, more particularly, the types of features that are likely to increase such participation."[56]

Dave and Tom, assisted by additional co-author Sarah Brosnan, continued this avenue of exploration in an article that built on the "burgeoning literature" on behavioralism and law. They characterized this literature as one that "seeks to conform the law to emerging understandings of what makes people tick."[57] Put differently, that literature focuses on improving understanding of the relationship between human behavior and the design of legal procedures.[58] The three authors asserted that "foundational work in understanding human perspectives and in assessing the effectiveness of existing institutions in responding to human concerns is critical to improving our regulatory state and the institutions that comprise it."[59] Based on a survey they conducted of peoples' preferences for decision-making processes for resolving land use disputes in Florida, they concluded that "people bring a range of values to their evaluation of decision-making processes," that "the amount of weight people attach to monetary and sentimental values affects their views about how well different procedures protect their interests," and that these findings supported the belief "that we should structure legal regimes in light of the reality that people are not always rational economic actors."[60]

Dave and his colleagues also found that although the survey respondents regarded judicial litigation as an effective vehicle for protecting their economic interests, they did not perceive it as equally effective in protecting sentimental values.[61] They interpreted their data as "highlight[ing] the importance of context in process design; if a goal of process design is to have processes that are acceptable to key stakeholders, it is important to

---

55. *See generally* Markell & Tyler, *supra* note 8.

56. *Id*. at 34.

57. David L. Markell et al., *What Has Love Got to Do with It?: Sentimental Attachments and Legal Decision-Making*, 57 VILL. L. REV. 209, 209 (2012).

58. *Id*.

59. *Id*. at 211.

60. *Id*. at 211–12.

61. *Id*. at 212.

understand the values these stakeholders hold concerning the particular decision involved, and more generally towards societal governance structures."[62] They endorsed "the value of using tools from the procedural justice literature to understand peoples' preferences and the process features that are most important to them, and to design processes that align with these preferences."[63]

The different tools available to enforcement officials received a lot of Dave's attention. In one article, for example, he explored the potential use of three components of EPA's "enforcement toolbox" (a favorite of Dave's phrases)—penalties, injunctive relief, and supplemental environmental projects (SEPs)—to protect ecosystems and the services they provide.[64] In another short piece, he analyzed EPA's use of "'mitigation' injunctive relief" and how it differed from the use of SEPs.[65]

VI. MY REWARDING LAW REVIEW COLLABORATIONS WITH DAVE MARKELL

Between 2014 and 2020, the year in which Dave assumed emeritus status, I had the wonderful good fortune to collaborate with him on five law review articles (on two of which we were joined by an additional co-author with empirical or technical skills that we lack). This group of articles provided me with some of the most challenging and satisfying scholarship experiences of my academic career. More to the current point, this multi-article collaborative effort in some ways represents a capstone on Dave's career-long contributions to environmental enforcement scholarship. The five articles address virtually all of the important subjects and themes discussed throughout this tribute, and they echo but add to many of the normative contributions that are highlights of Dave's stellar academic legacy.

---

62. *Id.* at 215.

63. *Id.* at 216.

64. David Markell, *Is There A Possible Role for Regulatory Enforcement in the Effort to Value, Protect, and Restore Ecosystem Services?*, 22 J. LAND USE & ENVTL. L. 549 (2007). A SEP is

> a form of relief in enforcement cases that obligate[s] the settling party to take actions that go 'beyond compliance' in order to protect the environment and minimize environmental concerns. In addition to increasing the potential for the enforcement process to serve as a tool for achieving enhanced levels of environmental protection, SEPs are intended to promote settlements through the additional flexibility they create for resolving cases.

Markell, *Slack*, *supra* note 43, at 15.

65. David Markell, *EPA Enforcement: A Heightened Emphasis on Mitigation Relief*, 45 ABA TRENDS 13, 13 (2014).

I regard myself as having been lucky to have been invited by Dave to go along for the ride. I believe the group of articles we researched and wrote together during this six-year period deepened and extended the insights Dave has provided to all those—practitioners, policymakers, and scholars alike—over the years who are invested in environmental law. The vision of environmental regulatory enforcement that Dave bestowed upon us in his long and prolific career certainly needed no burnishing. These final efforts, however, surely help cement Dave's reputation as one of the most thoughtful, creative, and impactful scholars on environmental enforcement issues since the dawn of modern environmental law less than a decade before Dave's graduation from the University of Virginia Law School.

Each of the five articles delved into what, in another context, Dave referred to as the "inside-out" aspects of environmental law[66]—what goes on inside the "black box" of agency policymaking and regulatory implementation.[67] In our first article, *A Holistic Look at Agency Enforcement*,[68] we offered "a three-layered conceptual framework for considering options for structuring the administrative agency enforcement and compliance promotion function."[69] The first layer was comprised of five components of effective regulation, particularly in the context of regulatory enforcement: norm clarity, norm achievability, compliance verifiability, an appropriate mix of sanctions and rewards, and indicia of legitimacy.[70] The second layer involved consideration of the relationships among these components, including how agencies should evaluate the inevitable tradeoffs that conflicts among the components require agencies to make.[71] We referred to the third layer as "contextual design challenges," which included the hybrid character of contemporary governance efforts, the importance of confronting past performance and future challenges and opportunities, the dynamic character of governance challenges,

66. *See* Hammond & Markell, *supra* note 40, at 316 (referring to the under-theorized nature of "the intrinsic legitimacy of agency behavior—legitimacy from the inside-out").

67. *See id.* at 316 (quoting Sidney A. Shapiro & Ronald F. Wright, *The Future of the Administrative Presidency: Turning Administrative Law Inside-Out*, 65 U. MIAMI L. REV. 577, 580 (2011)) (agreeing with the notion that "with only a few exceptions . . . administrative law scholars treat agencies as a black box to be controlled from the outside, using political oversight and judicial review").

68. Markell & Glicksman, *supra* note 9.

69. *Id.* at 5.

70. *Id.* at 6.

71. *Id.*

and the salience of possible design changes and the need to prioritize those improvements in light of challenges such as resource limitations.[72]

The article tested the value of the three-layered framework by applying it to a case study of EPA's efforts at the time to reform its enforcement and compliance promotion capacity through the adoption of the Clean Water Action Plan by the agency's Office of Enforcement and Compliance Assurance.[73] In this respect, the article tracks much of Dave's work, such as his analysis of the CEC submissions process,[74] in that it provides a conceptual or theoretical framework and then illustrates its value through its application to a particular enforcement challenge or program. Among other things, we suggested steps to improve regulated entities' understanding of their obligations, target significant violators (even if they are small businesses), improve integration of federal and state enforcement efforts, and pay more attention to the role of private enforcement.[75]

Our next article, on *Dynamic Governance*,[76] honed in on one of the contextual design challenges that we had identified in the previous article—the dynamic nature of governance regimes and the activities to which they apply. The article identified a "central and recurring policy challenge: how to structure and administer regulatory programs in times of dynamic change, when challenges, and opportunities to address them, are both shifting rapidly."[77] We offered a different three-part conceptual framework to assist policymakers seeking to design regulatory structures that are well suited to producing effective governance in dynamic circumstances. We urged policymakers to consider three key regulatory design considerations: "(1) the *actors* who are or should be involved in different capacities in administering the governance regime; (2) the *mechanisms* (legal and otherwise) available to promote regulatory goals; and (3) the *tools* available to policymakers and other stakeholders to advance desired results."[78]

---

72. *Id.* at 6–7.

73. *Id.* at 62–75 (discussing OFFICE OF ENFORCEMENT & COMPLIANCE ASSURANCE, ENVTL. PROT. AGENCY, CLEAN WATER ACTION PLAN (2009), http:// www2.epa.gov/sites/production/files/documents/actionplan101409.pdf).

74. *See supra* Part III.

75. Markell & Glicksman, *Holistic*, *supra* note 9, at 62–75.

76. Markell & Glicksman, *supra* note 6.

77. *Id.* at 565.

78. *Id.* at 566. Interestingly, Dave anticipated this framework when he reconfigured the enforcement chapter of our environmental law casebook in 2003. Following an introduction, the chapter had three sections – one for the various "actors" in environmental enforcement, one for the legal authorities that authorize and govern enforcement, and one that described

We argued in *Dynamic Governance* that "policy design needs to consider how each of [the] actors [responsible for pursuing or targeted by environmental enforcement] can promote regulatory objectives in light of factors such as their respective capacities and the legitimacy of allocating implementation authority to each of them."[79] We also urged policymakers to evaluate the utility of the different legal mechanisms to accomplish "transformational change in regulatory design," such as planning, budgeting, issuance of regulations, and adjudicatory enforcement, and to consider the potential roles of the different actors in implementing available mechanisms.[80] Finally, we argued that "tools that have served regulatory objectives well may be inadequate if the regulatory environment has shifted, and new or more sophisticated versions of old tools may become available as a result of technological changes or other innovations."[81] Further, the available tools may affect the roles that different actors should be authorized to play, and regulatory redesign efforts should consider "how best to use available legal and nonlegal mechanisms to promote desired use of different tools by different actors. Thus, all three variables in our framework need to be considered both independently and in tandem."[82]

As we did in the previous article, we sought to illustrate the value of our three-pronged framework in accommodating regulatory programs to dynamic change by way of example. In this instance, we applied the framework to an Obama Administration initiative called Next Generation Compliance (or Next Gen), which sought to transform the agency's enforcement and compliance apparatus.[83]

---

the expanded array of the enforcement tools at EPA's disposal. ENVIRONMENTAL PROTECTION (4th ed.), *supra* note 26, at xxiii.

79. Markell & Glicksman, *Dynamic Governance*, *supra* note 9, at 568.

80. *Id.* at 569.

81. *Id.* at 570.

82. *Id.*

83. For a description of Next Generation Compliance by the EPA enforcement official largely responsible for supervising its implementation, see Cynthia Giles, *Next Generation Compliance*, 30 ENVTL. F. 22 (2013). "Next Gen" was based on the premise that "effective compliance promotion requires much more than the traditional enforcement work of identifying significant violations followed by timely and appropriate enforcement response." Markell & Glicksman, *Dynamic Governance*, *supra* note 9, at 611. Following her departure from EPA, Cynthia Giles published a series of papers exploring the rationale for the Next Gen initiative and the lessons she took away from its implementation. *See* Cynthia Giles, *Next Generation Compliance: Environmental Regulation for the Modern Era*, HARVARD LAW SCHOOL ENVIRONMENTAL & ENERGY LAW PROGRAM (Sept. 10, 2020), https://eelp.law.harvard.edu/2020/09/next-generation-compliance-environmental-regulation-for-the-modern-era/ (providing links to a series of her papers on Next Gen). Dave and I also published a short piece on Next Gen that summarized some aspects of our law review work on Next Gen. David L. Markell & Robert L. Glicksman, *Next Generation Compliance*, 30 NAT. RESOURCES & ENV'T

Our analysis focused on one of the three components of our framework, using Next Gen to consider how citizen actors "may shape the redesign of regulatory enforcement structures and initiatives in response to dynamic circumstances."[84] In particular, we analyzed how the roles assigned to different actors in environmental enforcement and compliance promotion programs should be governed by their relative capacities and the extent to which their activities are coordinated.[85] These capacity and coordination considerations arise in at least four contexts for civil-society engagement: environmental actions taken by government, citizen interactions with regulated parties, citizen-driven "fire alarms," and citizens operating as direct actors through the legal process.[86] We suggested that the changes that drove Next Gen, including a rapid expansion of the available information on compliance status, were likely to affect each of these engagement contexts differently and that agency officials designing programs such as Next Gen should respond accordingly. More broadly, we argued that a failure to clearly distinguish among and appreciate the roles of the three components of our framework (actors, mechanisms, and tools) is likely to cause policymakers to miss opportunities to effectively advance regulatory goals.[87]

The third entry in our series of enforcement-related articles, which we wrote in collaboration with computer science expert Claire Monteleoni, took a closer look at one of the aspects of regulatory dynamism that we identified in *Dynamic Governance*—technological innovation that provides a wealth of new information on regulatory compliance status.[88] Technological developments in recent years "have advanced the capacity of governmental and nongovernmental actors to identify, measure, share, analyze, report on, and respond to the effects of activities subject to environmental regulations."[89] We claimed that the resulting new streams of data and analytical techniques have the potential not only to increase environmental regulatory compliance, but also "to significantly empower all of the relevant stakeholders in the environmental policy-making and implementation process and thereby play a

22 (2016). For further analysis of Next Gen, see, LEROY C. PADDOCK & JESSICA A. WENTZ, NEXT GENERATION ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT (LeRoy C. Paddock & Jessica A. Wentz eds., 2014).

84. Markell & Glicksman, *Dynamic Governance*, *supra* note 9, at 619.

85. *Id.*

86. *Id.* at 620–27.

87. *Id.* at 630.

88. Robert L. Glicksman et al., *Technological Innovation, Data Analytics, and Environmental Enforcement*, 44 ECOLOGY L.Q. 41 (2017).

89. *Id.* at 46.

significant role in transforming the governance landscape."[90] At the same time, these developments create challenges for EPA, such as providing quality control over information supplied by citizen groups and other private actors for whom monitoring technology has suddenly become affordable.[91] The article considered how these opportunities and challenges helped generate and shape EPA's Next Gen initiative. We concluded that "if EPA thoughtfully tackles the challenges that reliance on new data streams poses, the prospects for success of its effort to transform its enforcement and compliance programs should improve."[92]

Our penultimate effort, which we called *Unraveling the Administrative State*,[93] fine-tuned the conceptual framework we offered in *Dynamic Governance* by expanding the three key aspects of regulatory design we previously identified to include five components: "(1) the key or foundational legal mechanisms available to agencies (rulemaking, permitting, and enforcement), (2) the major actors, (3) the objectives the agency is trying to achieve, (4) important tools available to achieve policy objectives, and (5) the nature of the statutory authority delegated to the agency."[94] Whereas *Dynamic Governance* focused on how adjusting the roles of various actors can generate regulatory success, *Unraveling* highlighted the importance of choosing appropriate legal mechanisms to achieve policy goals. We explored the availability of (and limits on the use of) three foundational legal mechanisms of the administrative state—rulemaking, licensing (or permitting), and enforcement through administrative or judicial adjudication.[95] We then considered how agencies with access to these mechanisms choose among them, highlighting in particular the advantages and disadvantages of rulemaking and adjudication (both for permitting and enforcement) as policymaking and implementation vehicles.[96]

Our next task was to evaluate how the other four aspects of our conceptual framework have the capacity to affect discretionary agency mechanism choice.[97] We argued that "agencies do not (or at least should not) consider which mechanism to use in a vacuum, or simply by considering the advantages and disadvantages of each

---

90. *Id.* at 47.

91. *Id.* at 82.

92. *Id.* at 88.

93. Robert L. Glicksman & David L. Markell, *Unraveling the Administrative State: Mechanism Choice, Key Actors, and Regulatory Tools*, 36 VA. ENVTL. L.J. 318 (2018). [hereinafter *Unraveling*].

94. *Id.* at 322.

95. *Id.* at 329–35.

96. *Id.* at 335–46.

97. *Id.* at 346–47.

mechanism. Instead, the five components of our framework may influence mechanism choice."[98] Thus, for example, with respect to actors, EPA may prefer administrative over judicial enforcement if it wants to retain control over the process rather than relinquishing much of it to the Department of Justice, which litigates in federal court on behalf of the United States.[99] Policy objectives can also influence mechanism choice. EPA may choose rulemaking instead of permitting to impose electronic reporting obligations if it wants to assure standardization and uniformity of reporting duties. On the other hand, permitting or enforcement may be a preferable means of imposing monitoring obligations if the need for and type of oversight is likely to be context-specific.[100] The presence or absence of statutory authority may enable or preclude access to one or more enforcement-related mechanisms.[101]

Our bottom line was that "agency mechanism choice has significant implications for fundamental administrative law values such as transparency, accountability, participation, deliberation, fairness, effectiveness, and efficiency, and therefore for the legitimacy of the administrative state."[102] Because Congress typically has created (and courts have recognized) broad agency discretion to choose among different legal mechanisms, agencies such as EPA have considerable capacity to promote or undermine statutory goals in the exercise of that discretion.[103] Our point was that mechanism choice is (and ought to be) affected by a broader range of factors than is often recognized and that agencies should systematically evaluate the ways in which the activities of different actors, statutory objectives, available regulatory tools, and the scope of statutory authority are capable of influencing mechanism choice.[104]

Dave and I (with the critical assistance of Dave's colleague at Florida State University College of Law, Justin Sevier) closed out our five-part assessment of environmental enforcement challenges and opportunities with *An Empirical Assessment of Agency Mechanism Choice*.[105] This was a companion piece to *Unraveling*. We again grounded our theoretical analysis of mechanism choice

---

98. *Id.* at 347.

99. *Id.*

100. *Id.* at 347–48.

101. *Id.* at 348.

102. *Id.* at 383.

103. For another of Dave's works that sought to explain the motivations for how agencies exercise delegated statutory discretion, see David L. Markell, *Agency Motivations in Exercising Discretion*, 32 J. LAND USE & ENVTL. L. 513 (2017).

104. Glicksman & Markell, *Unraveling*, *supra* note 84, at 383–85.

105. Glicksman et al., *supra* note 7.

and the factors that influence it by applying the hypotheses we generated in *Unraveling* to the mechanism choices that EPA made in its implementation of Next Generation Compliance. Our starting point, based on *Unraveling*, was the premise that "both regulatory effectiveness and legitimacy are influenced by an agency's mechanism choices and the factors that influence them."[106] Based on our empirical analysis of the mechanism choices EPA made in pursing each Next Gen component, we found relationships between EPA's use of different legal mechanisms and each of the other aspects of our five-pronged conceptual framework. For example, we tracked whether the identity of various actors (such as EPA, the Department of Justice, and regulated parties) affected mechanism choice, whether EPA used different mechanisms to further different statutory objectives, whether mechanism choice is statute-specific, and whether the components of our model affected "intramechanism choices" such as the kinds of relief to seek in administrative or judicial enforcement actions.[107]

The article generated a series of empirical findings concerning the relationships (many of which were statistically significant) between Next Gen mechanism choices and the other elements of our model.[108] We then tried to identify possible reasons for the mechanism choices reflected in these findings. In doing so, we highlighted six underappreciated factors that may be relevant to mechanism choice, including the possible influence of (1) key actors involved in both horizontal and vertical relationships with other regulatory officials; (2) regulatory tools such as advanced monitoring technologies, enhanced transparency measures, and third-party verification; (3) inter-statutory differences; (4) the identity of the targets of enforcement action (such as municipal vs. industrial entities); (5) differences in the processes for judicial and administrative enforcement; and (6) the availability and legality of different forms of relief, such as SEPs.[109]

We noted that the existing literature on mechanism choice has tended to focus on the "inherent characteristics" of mechanisms such as rulemaking and adjudication to explain how and why agencies choose among available legal mechanisms.[110] We argued, however, that several additional factors are relevant to (and should

106. *Id.* at 1046.

107. *Id.* at 1049–50.

108. As we noted in the article, "Differences between groups [of findings] are 'significant' if the statistical tests indicate that the likelihood that the difference observed would occur by chance is 5% or less (as indicated by the p-value as $p < 0.05$)." *Id.* at 1057 n.49.

109. *Id.* at 1082–1105.

110. *Id.* at 1106.

play an important role in) enforcement-related agency mechanism choice. We characterized our effort as the first of which we were aware that sought "to provide extensive empirical analysis of agency mechanism choice," and concluded that our findings appear to confirm the significance of each of the underappreciated factors we identified as potentially relevant to agency mechanism choice.[111] As Dave's work often has done, we implored further empirical work into this expanded array of factors that drive mechanism choice as a means of "maximiz[ing] the likelihood that agencies will have sufficient means to effectively promote the public interest in ways consistent with statutory delegations of authority."[112]

VII. CONCLUSION

Dave Markell's scholarship has provided us with a unique set of insights on the internal workings of environmental regulatory enforcement programs based on his practical experience as an enforcement official in state, federal, and international settings, and on his highly original theoretical conceptions of what it takes to bolster compliance in ways consistent with important administrative law values such as legitimacy, accountability, transparency, and public participation in government decision-making. But this account gives short shrift to the scope and impact of Dave's scholarship. Although I focus here almost entirely on his environmental enforcement work, he also did trenchant work on other salient environmental law issues, such as those that concern climate change mitigation and adaptation.[113]

We are all the beneficiaries of Dave Markell's quest to improve environmental enforcement and compliance. I feel especially blessed to have had the opportunity to work closely with Dave on some of his scholarly endeavors and to watch as he developed some of the ideas and innovations that have made him a leading light on environmental regulatory enforcement. The work we did together was often hard, but, even if I were not convinced of the value of our joint efforts, the process itself provided a remarkable payoff for me. I observed at close hand a first-rate legal scholar at the top of his

111. *Id.*

112. *Id.* at 1107.

113. *See* David L. Markell, *Emerging Legal and Institutional Responses to Sea-Level Rise in Florida and Beyond*, 42 COLUM. J. ENVTL. L. 1 (2016); David Markell, *Climate Change and the Roles of Land Use and Energy Law: An Introduction*, 27 J. LAND USE & ENVTL. L. 231 (2012); David Markell & J.B. Ruhl, *An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?*, 64 FLA. L. REV. 15 (2012); David Markell & J.B. Ruhl, *An Empirical Survey of Climate Change Litigation in the United States*, 40 ENVTL. L. REP. News & Analysis 10644 (2010); David L. Markell, *Greening the Economy Sustainably*, 1 WASH. & LEE J. ENERGY, CLIMATE & ENV'T 49 (2010).

powers. I will forever be grateful to Dave for serving as a model for how to conduct my own scholarly work—with conscientiousness, diligence, inquisitiveness, open-mindedness, and a capacity to see both the trees and the forest—even if I am not able to match his peerless performance.

A LAW PROFESSOR IN FULL

JOHN H. KNOX*

Many law professors seek to contribute to positive change in the world through service outside the academy, as well as through scholarship and teaching. Service can take many forms, but whatever the type chosen, the goal is to put to work in practice the knowledge acquired in the course of years of study—and, in turn, to have the knowledge acquired in the course of practice inform the scholarship and teaching. The ideal is to have the different parts of one's career work in harmony, each helping to build on the others, in a kind of virtuous cycle.

Among the law professors I have known personally, no one has been better at fulfilling this ideal than David Markell. His career exemplified how someone can fuse teaching, scholarship, and service into a whole greater than the sum of its parts. In this essay, I draw attention to one particularly noteworthy aspect of that career: his work to improve both the practical implementation and the scholarly understanding of public participation in environmental decision-making and compliance.

Much of my first-hand knowledge of Dave's contributions in this area comes from our shared interest in the North American Commission for Environmental Cooperation, the only regional environmental intergovernmental organization in North America. The Commission (or CEC) oversees a procedure through which individuals and groups can raise complaints against any of the three North American governments. Dave worked for the CEC in its infancy, and he built on the lessons he learned there not only to provide concrete recommendations for improving the CEC, but also to inform and strengthen scholarship on how public participation mechanisms work, and what makes them more (or less) effective.

The CEC was an outcome of the 1992 U.S. presidential election, which debated whether the United States should join the North American Free Trade Agreement (NAFTA). Third-party candidate Ross Perot campaigned relentlessly against NAFTA; he attacked it as bad for the U.S. economy and a threat to U.S. workers, who would lose their jobs, he argued, when U.S. companies moved to Mexico in search of lower-paid employees and weaker labor standards. Many environmentalists also criticized NAFTA, on similar grounds: that it would induce U.S. companies to shift operations to Mexico to take advantage of less demanding environmental standards. To try to

* Henry C. Lauerman Professor of International Law, Wake Forest University School of Law.

forestall companies from moving South in search of so-called "pollution havens," states in the United States would have to lower their own environmental standards, in a race to the bottom.

Incumbent Republican President George H.W. Bush defended NAFTA, which his administration had negotiated. Democrat Bill Clinton found a middle way between supporting the agreement and rejecting it completely. He agreed with the NAFTA critics that it could have adverse effects on labor and the environment, but he promised to fix NAFTA, if elected, by negotiating new side agreements that would protect against those effects.

After Clinton took office in January 1993, his administration negotiated new agreements on labor and the environment, which were approved by Congress together with NAFTA. All three agreements entered into force together on January 1, 1994. The environmental side agreement, the North American Agreement on Environmental Cooperation (NAAEC), committed each of the NAFTA countries to take certain steps to protect against the environmental consequences of increased economic integration—in particular, against the fears of pollution havens and a race to the bottom.

On paper, Mexican environmental standards were quite strong. The key issue was whether they would be effectively implemented. To guard against the possibility that Mexico (or any other NAFTA party) might relax its environmental standards in practice, the NAAEC committed each of the three parties to effectively enforce its environmental laws.[1] It also created the first-ever regional North American environmental organization, the CEC, with a mandate to facilitate cooperation between the three governments on a wide range of environmental issues.[2] The CEC was–and remains–composed of three elements: a Council of the three environmental ministers, a Joint Public Advisory Committee, and a Secretariat of international civil servants.

One of the CEC's most important, innovative, and controversial functions was its citizen submissions procedure. The NAAEC gives the CEC a mandate to receive submissions from anyone in North

---

1. North American Agreement on Environmental Cooperation, art. 5(1), Sept. 14, 1993, 32 I.L.M. 1480 [hereinafter NAAEC]. It also required each of the parties to ensure that its environmental laws provide high standards and to strive to improve those laws. *Id.* art. 3.

2. The Agreement between the United States of America, the United Mexican States, and Canada (USMCA) that replaced NAFTA in 2020 largely repeated its provisions, although it made some incremental changes, including to its environmental provisions. The USMCA incorporated many of the provisions of the NAAEC; at the same time, the North American governments negotiated a new agreement, the Agreement on Environmental Cooperation, which renewed the authority for the Commission on Environmental Cooperation and continued its functions. The USMCA and the new Agreement on Environmental Cooperation entered into force on July 1, 2020.

America alleging that any of the three NAFTA parties is failing to effectively enforce its environmental laws.[3] These submissions are reviewed by the Secretariat, which decides whether they justify further investigation. If so, the Secretariat requests authority from the CEC Council of ministers to prepare a public "factual record."

From its inception, this procedure obviously has had the potential to be highly embarrassing for any of the three North American governments. Failure to effectively enforce environmental laws suggests that a government lacks either the capacity or, worse, the will to meet the standards it has set for itself. From the beginning, the governments have been highly sensitive to these submissions. While they have not killed the procedure altogether, they have repeatedly looked for ways to limit their exposure to it.

Although the NAEEC entered into force in 1994, it took some time for the CEC to hire staff and to begin its work. The submissions procedure received only two submissions in 1995, which it rejected as inadmissible because they did not raise allegations of ineffective enforcement. However, the number of submissions increased quickly. In 1996 and 1997, the CEC received a total of eleven submissions, and it received seven more in 1998. As expected, many of the submissions—eight of these eighteen—were directed against Mexico. More surprisingly, an equal number were aimed at Canada. While most of the Mexican submissions were focused on specific projects, many of the Canadian submissions drew attention to alleged widespread failures to enforce environmental laws throughout an entire province. They raised highly difficult, complex issues legally as well as factually. Moreover, the governments had begun to throw up roadblocks—new procedural requirements that the submissions should meet, beyond those set out in the agreement itself.

All of this is to underscore what a complicated situation Dave Markell entered when, in 1998, he took a two-year leave of absence from Albany Law School, where he was then teaching, to become the first full-time Director of the CEC Secretariat unit responsible for Submissions on Enforcement Matters (the SEM Unit).

It was at this point that I first met Dave. As an attorney-adviser at the Department of State, I had been one of the negotiators of the NAAEC in 1993. Not long after I joined academia in 1998, I was appointed to the EPA National Advisory Committee on the CEC. In that role, I was particularly interested in how the Secretariat would

---

3. NAAEC, *supra* note 1, at arts. 14, 15. As of July 1, 2020, the current authority for the submissions procedure is USMCA articles 24.27 and 24.28.

address the backlog of submissions and deal with the cross-cutting pressures from the three governments and the many environmental groups interested in using the procedure.

When Dave took the position, he faced a number of questions about how to implement the submissions procedure. He had to establish the internal steps for the Secretariat to follow in handling the submissions, both those that had accumulated before his arrival and those that continued to come in throughout his term. He had to engage in detailed legal analyses of whether these submissions met the admissibility criteria set out in the agreement and to respond to the governments' proposals for new requirements. He had to prepare thorough factual investigations in cases where the Council was persuaded to authorize them. He had to make the delicate political judgments necessary in dealing not only with the three rather touchy governments, but also with the environmental groups and advocates in all three countries that were expecting the CEC to deliver on the promises of effective oversight.

And he had to do this all in the public view, knowing that all of his decisions would be pored over and criticized by the various stakeholders and academics like myself who were following his work—and knowing that (in the words of Lin-Manuel Miranda, via Aaron Burr) at the outset of a new institution, "every . . . experiment sets a precedent" for its future decisions.[4]

Somewhat miraculously, Dave and his small team managed to thread all of these needles. In these crucial early years, the Secretariat received high praise from virtually everyone for the way that it handled the submissions.[5] In 2001, in my first lengthy (in retrospect, far too lengthy) law review article, I examined the submissions procedure in light of a number of factors that Larry Helfer and Anne-Marie Slaughter had developed to assess the effectiveness of supranational tribunals.[6] The factors within the tribunal's control included the quality of its legal reasoning, and whether the tribunal was neutral and autonomous from political interests. I gave the Secretariat SEM Unit under Dave's leadership high marks, writing that "the Secretariat's decisions appear to be consistently grounded on carefully reasoned legal interpretations of the Agreement rather than on fear of adverse reactions by, or the

---

4. Miranda, L. (2016). *Hamilton: An American Musical*, *in* J. McCarter (Ed.), *Hamilton: The Revolution*. (New York: Grand Central Publishing).

5. In contrast, the Council and the governments have come under quite a bit of criticism over the years for their efforts to restrict the procedure.

6. John H. Knox, *A New Approach to Compliance with International Environmental Law: The Submissions Procedure of the NAFTA Environmental Commission*, 28 ECOLOGY L.Q. 1 (2001) (applying the criteria developed in Laurence Helfer & Anne-Marie Slaughter, *Toward a Theory of Effective Supranational Adjudication*, 107 YALE L.J. 273 (1997)).

desire to curry favor with, either states or submitters."[7] Other observers agreed. For example, an Independent Review Committee that assessed the work of the Secretariat in its first four years concluded that its decision-making in the submissions procedure "has been professional and appropriate."[8]

Dave's detailed legal analyses and reports not only met with general approval; they provided models that the Secretariat continued to use after he returned to academia in 2000.[9] In short, despite the considerable obstacles, Dave succeeded in getting the submissions procedure off the ground and giving it a framework and structure that it has used to this day.

After resuming his role as a legal academic, Dave drew on his CEC experience in many ways. He continued to provide clear-eyed and detailed analysis of the CEC submissions procedure in a number of articles and other publications.[10] He and I co-edited a book on the CEC that brought together contributions from scholars and practitioners on many different aspects of its work.[11] He served as a member of the U.S. National Advisory Committee on the CEC from 2010 to 2014.

At the same time, Dave took his experience with the CEC and applied it far beyond the CEC. One of his greatest strengths was that he was continually looking to expand his, and our, horizon—to draw on what he had learned to construct new ways of seeing the world more clearly. In the years after he left the CEC, he became one of the leading scholars on public participation

---

7. *Id.* at 96–97.

8. *Id.* at 97 (quoting N. AM. COMM'N FOR ENVTL. COOP., FOUR-YEAR REVIEW OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION: REPORT OF THE INDEPENDENT REVIEW COMMITTEE § 3.3.3 (1998)).

9. In particular, Geoff Garver, who was the Director of the SEM Unit from 2000 to 2007, deserves praise for his efforts to build on Dave's work and strengthen the effectiveness of the procedure.

10. *E.g.*, David L. Markell, *Governance of International Institutions: A Review of the North American Commission for Environmental Cooperation's Citizen Submissions Process*, 30 N.C. J. INT'L & COM. REG. 759 (2005); David L. Markell, *The North American Commission for Environmental Cooperation After Ten Years: Lessons about Institutional Structure and Public Participation in Governance*, 26 LOY. L.A. INT'L & COMP. L. REV. 341 (2004); David L. Markell, *The Commission for Environmental Cooperation's Citizen Submission Process*, 12 GEO. INT'L ENVTL. L. REV. 545 (2000); David L. Markell, *The Citizen Spotlight Process*, 18 ENVTL. F. 32 (2001). As always, Dave did not just write for other scholars; he also sought to educate practitioners, for example by writing pieces for ABA Newsletters. *See, e.g.*, David L. Markell, *A Brief Overview of the Commission for Environmental Cooperation and its Citizen Submission Process*, 2 A.B.A SEC. OF ENVTL., ENERGY & RES., INT'L ENVTL. L. COMM. NEWSLETTER 27 (July 2000); David L. Markell, *Enhancing Citizen Involvement in Environmental Governance*, 18 NAT. RES. & ENVTL. 49 (2004).

11. GREENING NAFTA: THE NORTH AMERICAN COMMISSION FOR ENVIRONMENTAL COOPERATION (David L. Markell & John H. Knox, eds., 2003).

in environmental decision-making and enforcement generally, publishing treatises and articles that provided rigor and structure to the field.

His experience with the CEC gave him unique insights into the difficulties of creating an effective system to consider and act on citizen submissions in the environmental context, as well as an appreciation of the ways that such a system might contribute to the making of environmental policy. In his scholarship, he did not simply describe lessons from his practice experience—as interesting as those were—but instead used his outstanding analytical ability and creativity to find hard evidence to test his hypotheses and to develop useful recommendations on that basis.

Much of his work after leaving the CEC focused on the participation of civil society in environmental governance structures. His scholarship drew not only on his own hands-on experience in working with such mechanisms, including through his service at the CEC, but also on his additional, original empirical research.[12] One of his central contributions of this scholarship was his careful, well-supported demonstration that without public support in the shaping and implementation of environmental policies, they will fail to be either as effective or as legitimate as they would be with such support.

In an article I co-authored with him in 2011-2012, I was again able to see this process at work first-hand.[13] In the article, we evaluated our old friend, the CEC submissions procedure, but the article also provided—thanks to Dave—a clear understanding of the broader, cross-cutting issues that arise in citizen submission procedures wherever they may be found. The article applied Dave's empirical work to provide a framework for evaluating such citizen petition processes. It not only assessed—and recommended improvements to—the CEC submissions procedure; it also explained how an analysis of that procedure provides broader lessons for the many petition processes created at the international and domestic level, in a variety of environmental, human rights, labor, and trade regimes.

---

12. *See, e.g.*, David L. Markell & Tom R. Tyler, *Using Empirical Research to Design Government Citizen Participation Processes: A Case Study of Citizens' Roles in Environmental Compliance and Enforcement*, 57 KAN. L. REV. 1 (2008). Other important works in this series of articles include David L. Markell, *The Role of Citizen Spotlighting Procedures in Promoting Citizen Participation, Transparency, and Accountability*, 45 WAKE FOREST L. REV. 425 (2010); David L. Markell, *Understanding Citizen Perspectives on Government Decision-Making Processes as a Way to Improve the Administrative State*, 36 ENVTL. L. 651 (2006); David L. Markell, *"Slack" in the Administrative State and its Implications for Governance: the Issue of Accountability*, 84 OR. L. REV. 1 (2005).

13. John H. Knox & David L. Markell, *Evaluating Citizen Petition Procedures: Lessons from an Analysis of the NAFTA Environmental Commission*, 47 TEX. INT'L L.J. 505 (2012).

In this brief essay, I have focused primarily on that part of Dave's career that I observed first-hand, concerning the CEC and public participation in environmental enforcement, because I believe that his work for and on the CEC exemplifies how his service to the broader community informed his scholarship, and vice versa.

But I want to emphasize that even this significant aspect of Dave's career, in which he made such substantial contributions, was only one fairly small part of his contributions to our understanding of environmental compliance and enforcement, public participation, administrative agencies, and the regulatory state, among many other areas. In more recent years, Dave integrated his attention to public participation in environmental enforcement into broader inquiries into legitimacy in agency decision-making, regulatory governance in times of rapid change, and the tools available to agencies to enforce and improve compliance with environmental laws, including in a series of groundbreaking articles with Robert Glicksman and Emily Hammond.[14] Throughout these efforts and, indeed, all of his scholarly projects, Dave's work was marked by thoughtful analysis and careful empirical research.[15]

I want to close on another note. A person might have all of the types of accomplishments described above—they might be admirable in many ways—but at the same time they might not be the most pleasant person to work with. They might come across as driven, interested in helping people in the abstract but sometimes forgetful of individuals in person.

That was never Dave. He was always interested in other people, and thoughtful and considerate of them. He was an ideal scholarly partner, as is shown by the remarkable number and diverse range of co-authors with whom he successfully worked. By building personal as well as professional ties with his colleagues, he was one of those scholars who make the scholarly enterprise really feel like a collective endeavor.

Perhaps most fundamentally, he never lost sight of why it is so important to ensure that administrative agencies work for the public good, that environmental standards are complied with, and

---

14. *See, e.g.*, David L. Markell & Robert L. Glicksman, *Unraveling the Administrative State*, 36 VA. ENVTL. L.J. 3 (2018); David L. Markell & Robert L. Glicksman, *Dynamic Governance in Theory and Application, Part I*, 58 ARIZ. L. REV. 563 (2016); David L. Markell & Robert L. Glicksman, *A Holistic View of Agency Enforcement*, 93 N.C. L. REV. 1 (2014); Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313 (2013).

15. *See, e.g.*, Robert L. Glicksman, David L. Markell & Justin Sevier, *An Empirical Assessment of Agency Mechanism Choice*, 71 ALA. L. REV. 1039 (2020); David L. Markell & J.B. Ruhl, *An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?*, 64 FLA. L. REV. 15 (2012).

that ordinary people have access to and trust in avenues of public participation and redress—so that everyone, everywhere, can live in a healthy and sustainable environment.

What else can one hope for in a career as a law professor, other than to teach and advise generations of students, to break new paths in scholarship and contribute to important scholarly projects, and to serve the broader community—and to have all of these aspects of one's career support and further each other? Dave Markell was a law professor in full.

A LEADING SCHOLAR ON ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT

LEE PADDOCK*

David has been a remarkable scholar across a spectrum of environmental-related issues including administrative law, environmental governance, climate change, CERCLA, and NAFTA, among many other areas. However, it is his extensive scholarship on environmental compliance, enforcement and enforcement where we interacted most frequently, and for which he was recognized as a leading voice throughout his career. Whether publishing on his own or collaborating with some of the other leading scholars on enforcement, such as Robert Glicksman or Clifford Rechtschaffen, his writing has contributed to a much better understanding about how to design and implement effective environmental compliance and enforcement programs.

I first met David in the 1980s as our careers followed similar paths working on compliance and enforcement issues at the state level and then in our academic settings. His years of real-world government experience in environmental enforcement began in 1984 as Assistant Regional Council at EPA Region 1. In 1987, he moved to the U.S. Department of Justice as a trial attorney with the Land and Natural Resources Division [now the Environment and Natural Resources Division], Environmental Enforcement Section, followed by four years as Director of the Division of Environmental Enforcement at the New York Department of Environmental Conservation between 1988 and 1992. This work grounded his scholarship in the actual practice of environmental compliance and enforcement. My own experience in working with the Minnesota Office of the Attorney General for over twenty years and in developing environmental enforcement legislation for the state highlighted for me how important a nuanced understanding of how enforcement programs work is and the limitations on what can be accomplished using compliance and enforcement tools; an understanding that was reflected in David's scholarship. I have especially appreciated this aspect of David's experienced-based understanding of enforcement issues in the instances we worked together: including as co-editors of the 2017 Edward Elgar Press book *Compliance and Enforcement of Environmental Law* and the

* Distinguished Professorial Lecturer in Environmental Law, The George Washington University Law School.

2011 Edward Elgar Press book *Compliance and Enforcement of Environmental Law: Toward More Effective Implementation*.[1]

David's scholarship on enforcement began even before he took an academic position at the University of Albany. In 1991, in the Duke Environmental Law & Policy Forum, David, who was then Director of the New York Department of Environmental Conservation's Division of Environmental Enforcement, discussed a series of innovations designed to make enforcement more efficient and effective, many of which found their way into, or are reflected by, enforcement strategies employed today, almost thirty years later.[2] Subsequently, David authored or co-authored eight additional articles and two book chapters focusing on environmental enforcement, co-edited two books on enforcement, and co-authored, with Cliff Rechtschaffen, one of the field's leading books—*Reinventing Environmental Enforcement & the State/Federal Relationship*.[3] Two of David's articles—*Improving State Environmental Enforcement Performance Through Enhanced Government Accountability and Other Strategies*, published in the Environmental Law Reporter in 2003,[4] and *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality*, published in the Harvard Environmental Law Review in 2000[5] were selected as among the best annual contributions to legal scholarship in the field of environmental law following their publication. In addition, two other articles authored by David were selected as finalists for best contribution—*A Holistic View of Agency Enforcement* (with Robert Glicksman), published in the North Carolina Law Review in 2014,[6] and *Using Empirical Research to Design Government Citizen Participation Processes: A Case Study of Citizens' Roles in Environmental Compliance and Enforcement*, published in the

---

1. COMPLIANCE AND ENFORCEMENT OF ENVIRONMENTAL LAW (LeRoy C. Paddock et al. eds., 2017); COMPLIANCE AND ENFORCEMENT IN ENVIRONMENTAL LAW: TOWARD MORE EFFECTIVE IMPLEMENTATION, (LeRoy C. Paddock et al. eds., 2011).

2. David L. Markell, *Enforcement Challenges and Priorities for the 1990s: A State Perspective,* 1 DUKE ENV'T L. & POL'Y F. 30 (1991).

3. Cliff Rechtschaffen & David L. Markell, REINVENTING ENVIRONMENTAL ENFORCEMENT & THE STATE/FEDERAL RELATIONSHIP (2003).

4. Clifford Rechtschaffen & David L. Markell, *Improving State Environmental Enforcement Performance Through Enhanced Government Accountability and Other Strategies,* 33 ENVTL. L. REP. 10559 (2003).

5. David L. Markell, *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality,* 24 HARV. ENVTL. L. REV. 1 (2000).

6. David L. Markell & Robert L. Glicksman, *A Holistic View of Agency Enforcement,* 93 N.C. L. REV. (2014).

Kansas Law Review in 2008.[7] These publications have been extraordinary contributions to the scholarship on environmental compliance and enforcement, placing David among the leading scholars on environmental compliance and enforcement in the world. As the titles of the articles cited above indicate, David had a particular interest in the institutional arrangements involved in compliance and enforcement. This is a critical issue in countries such as the United States where the regulatory framework is principally based in national law, but the implementation of the law, including permitting, inspecting, and enforcement, is dominated by state actions. David's work experience before entering academia, which included experience at the federal level and a leadership role in enforcement at the state level, gave him unique insights into more efficient ways for state and federal governments to interact to assure that environmental legislation is effectively implemented.

Finally, on a personal note I wanted to recognize David's friendship which spanned nearly thirty years. David was always been a willing collaborator and a trusted advisor. He was one of the nicest, most giving people I know. His legacy of careful thought and insightful scholarship will remain important for decades to come.

---

7. Tom R. Tyler & David L. Markell, *Using Empirical Research to Design Government Citizen Participation Processes: A Case Study of Citizens' Roles in Environmental Compliance and Enforcement,* 57 KAN. L. REV. 1 (2008).

CLIMATE CHANGE LITIGATION, TEN YEARS LATER

J.B. Ruhl*

Dave Markell and I were colleagues at the Florida State University College of Law for nine years. Our offices were on the same hallway. It was a dead-end hallway—my office being at the dead end. People showed up at my door either with a purpose or lost. Usually, they were lost.

One day early in 2009, Dave showed up at my door with a purpose. Our mutual friend, Mike Gerrard, had started tracking climate change litigation through a website, which he later continued after leaving private practice to start the Sabin Center for Climate Change Law at Columbia Law School.[1] Dave was puzzled: the website was at the time tracking close to 100 litigation matters, but legal scholarship on climate change litigation focused on only a handful of cases. *Massachusetts v. EPA*[2] was one, obviously, and a few others made the legal scholars' shortlist. All the cases were "victories" for the climate change mitigation cause. "But what about the other cases?" Dave asked—"What were they about?"

If only Dave had known what that simple question would lead to, he might not have shown up at my door. We quickly agreed it would be interesting to explore what the other cases were about. Before long, though, we decided to "go empirical" by coding each matter for various attributes, such as type of plaintiff and defendant, type of claim, and so on. Over the course of the next few weeks, we started gathering cases and brainstorming on the coding attributes. Also, although Michael Gerrard's website gave us a great start, we decided to cast a wide net through web searches for any additional climate change litigation matters. Although we limited the study to the United States, we included all active and resolved federal and state litigation matters, meaning we had to hunt down pleadings, settlements, and opinions. The cases quickly started piling up. Our list of coding attributes kept growing longer and more complex. We started to sense we had created a monster.

---

* David Daniels Allen Distinguished Chair of Law, Vanderbilt University Law School, Nashville, TN. I am grateful to the *Journal of Land Use and Environmental Law* for giving me to opportunity to offer some thoughts on the career of Professor David Markell, whom I deeply respect as a friend and colleague.

1. *U.S. Climate Change Litigation*, CLIMATE CHANGE DATABASE http://climatecasechart.com/us-climate-change-litigation/.

2. 549 U.S. 497 (2007) (ruling that carbon dioxide can be regulated as a pollutant under the Clean Air Act).

Over the ensuing months, Dave and I and a team of (eventually) six research assistants slogged through the documents and the coding. Each litigation matter had its own folder, and the full set was carted around in several banker's boxes. Our research assistants did a fantastic job hunting down documents, updating, and performing the initial coding work on each matter. But with nearly 200 matters in the system, we all were growing weary. By the time we cut off updating on December 31, 2010, I was in no mood to read another climate change litigation complaint, motion, or opinion!

Of course, the payoff for all that searching and coding was the dataset. Nothing like it had ever been compiled. Compiling a dataset is only worth it, however, if there is something interesting to pull out of the data. It turned out our dataset was a goldmine in that regard. Indeed, we had a sense of that about halfway through the project based on a snapshot of the data we performed at the close of 2009, covering about 130 matters. We published a summary of the data in the *Environmental Law Reporter*,[3] the big picture findings being:

- Most of the cases were suits that environmental nongovernmental organizations (NGOs) brought against the federal and/or state government, with a handful of "professional" environmental NGOs serving as plaintiffs in many of the cases.

- Most of the cases were brought in federal court.

- Most of the cases were based on statutory causes of action (rather than constitutional or common-law claims).

- Many of the cases were based on the National Environmental Policy Act (NEPA) or state "Little NEPA" claims and focused on stopping coal-fired power plants.

- Adaptation was not on the litigation radar screen.

- Common law nuisance cases were a very small component of the case mix, despite the significant attention they had received.

- Of the relatively small number of cases that were resolved, the success rate for plaintiffs was roughly 50%.

- The use of the courts to raise climate change issues did not gain steam until 2006 (before that year, climate change litigation was quite rare).[4]

---

3. David Markell & J.B. Ruhl, *An Empirical Survey of Climate Change Litigation in the United States*, 40 ENVTL. L. REPORTERREP 10644 (2010).

4. *Id.* at 10647.

The next year of work added another big slug of matters to the dataset, bringing the total to 201. In an article we published in 2012 in the *Florida Law Review*,[5] we dug deeper into the data and also took a step back to consider what the study revealed about the role of courts in shaping climate law and policy. Our findings were consistent with those we made in 2009, but some additional revelations came about. For example, we found an upward trend in litigation by industry interests challenging emissions regulations—what we dubbed "anti litigation."[6] Litigation brought by state, local, and tribal governments was also on the rise and, surprisingly, every such matter involved a governmental entity—usually the federal government—as a defendant.[7] And although it is not an empirically grounded conclusion, our impression was that courts were not treating climate change as an exceptional legal proposition—they were processing it through applicable law like any other subject.[8]

With the *Florida Law Review* article publication, our work was done! A wave of relief came over me. I vowed not to get involved in any data coding projects for a good while.

Yet, I also regretted that the project was over. It meant Dave and I were no longer working closely together as a team. We had spent countless hours together brainstorming, evaluating the data, sketching out findings, writing up and wordsmithing the two articles, and meeting with our research assistants to go over coding decisions. I enjoyed every minute of working with Dave. We were already good friends before the project—our children attended the same middle school (but rival high schools), our spouses were both school volunteers, we hit the tennis ball together often, talked about family, and were on the same page regarding the law school. Indeed, one of my biggest contributions to the law school was taking the lead in recruiting Dave to join FSU in 2002. But the climate change study was my opportunity to appreciate Dave as a scholar at work. He is diligent, careful, and as insightful as anyone I know. He kept the project moving and was responsible for its focus on the institutional impacts of the body of litigation. I have nothing but fond memories of our work together and the utmost respect for Dave as a legal scholar, as well as husband, father, and friend.

Another downside of the project ending was that our study was outdated the day it was published. Writing this tribute to Dave ten years after our cutoff date in December 2010, much has changed,

---

5. Dave Markell & J.B. Ruhl, *An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?*, 64 FLA. L. REV. 15 (2012).

6. *Id.* at 66.

7. *Id.* at 75.

8. *Id.* at 79–84.

and more change is ahead. The number of matters qualifying as climate change litigation has exploded.[9] Although I offer no empirical support, a few trends and projections seem worth noting.

First, although the Obama Administration was moderately attentive to climate change in the President's first term, it ramped up considerably in the second term—most notably through the Clean Power Plan—leading to a surge in anti litigation.[10] Then, of course, came the Trump Administration and its 180 degree reversal of the regulatory initiative, leading to a wave of "pro litigation" challenges.[11] Anticipating yet another 180 degree turn in the Biden Administration as it restores and builds on the Obama Administration's work, it will be interesting to see whether industry interests that litigated against the Obama regulatory thrust will do so again, or whether the tide of corporate perspective on climate change has shifted.

Second, whereas we found only a small percentage of matters through 2010 raising common law claims, such as public nuisance and the public trust doctrine, that front of litigation has rapidly expanded.[12] For example, the Our Children's Trust advocacy organization has pursued novel public trust claims against government entities in many states, arguing that governments must do more to protect trust resources from climate change.[13]

Similarly, climate change adaptation litigation has begun to surge. One form claims that government and private entities have failed adequately to adapt and, thus, have exposed the public to potential harm.[14] Another form seeks damages from companies responsible for greenhouse gas emissions as compensation for adaptation costs.[15] Notwithstanding difficult issues of causation and

---

9. *See* Jacqueline Peel & Hari M. Osofsky, *Climate Change Litigation*, 16 ANNU. REV. LAW SOC. SCI. 21 (2020).

10. *See* Coral Davenport & Julie Hirschfeld Davis, *Move to Fight Obama's Climate Plan Started Early*, N.Y. TIMES (Aug. 3, 2015, TIME), https://www.nytimes.com/2015/08/04/us/obama-unveils-plan-to-sharply-limit-greenhouse-gas-emissions.html.

11. For coverage of climate litigation in the Trump era, *see* Dena P. Adler, U.S. CLIMATE LITIGATION IN THE AGE OF TRUMP: YEAR TWO (June 2019), https://climate.law.columbia.edu/sites/default/files/content/docs/Adler-2019-06-US-Climate-Change-Litigation-in-Age-of-Trump-Year-2-Report.pdf; U.S. CLIMATE LITIGATION IN THE AGE OF TRUMP: YEAR ONE (Feb. 2018), http://columbiaclimatelaw.com/files/2018/02/Adler-2018-02-Executive-Summary-for-Climate-Change-Litigation-in-the-Age-of-Trump-Year-One.pdf.

12. *See* UN Env't Programme *The Status of Climate Change Litigation: A Global Review*, 24-25, 34-36 (2017), https://climate-change.site.drupaldisttest.cc.columbia.edu/sites/default/files/content/docs/Burger-Gundlach-2017-05-UN-Envt-CC-Litigation.pdfUnited Nations.

13. *See* Anna Christiansen, *Up in the Air: A Fifty-State Survey of Atmospheric Trust Litigation Brought by Our Children's Trust*, 2020 UTAH L. REV. 867 (2020).

14. *See* UN Env't Programme, *supra* note 12, at 22–23.

15. *See* Harrison Beck, *Locating Liability for Climate Change: A Comparative Analysis of Recent Trends in Climate Jurisprudence*, 50 ENVTL. L. 885, 891–95 (2020).

attribution, it is likely that adaptation litigation will see an upswing in the years ahead given the growing concern that greenhouse gas emissions are not being adequately regulated.[16]

As I mentioned, Dave's biggest fingerprint on our *Florida Law Review* article was the institutional impact focus—how courts were behaving about climate change and how that could influence other branches and scales of governance. If we were to have conducted a reprise of our study in 2020, I am sure he'd have drilled down on the above trends in the same way. I think of him as one of the most skilled of legal scholars at unpacking institutional design and structure, in particular having to do with regulatory compliance and enforcement—it's what put him on my radar screen for recruiting him to FSU back in 2002. His 2000 article on deterrence-based enforcement influenced my thinking on cooperative federalism.[17] And he continued with a stream of impactful work on environmental enforcement at FSU.[18]

The enforcement theme made sense for Dave to pursue given his extensive practice experience with major law firms and then with federal and state government. Perhaps what set Dave apart most in this respect is how he leveraged his final position before entering the academy, as the Director of Submissions on Enforcement Matters North American Commission for Environmental Cooperation (CEC). There, he oversaw a citizen complaint process operating under the NAFTA trade agreement, exposing him to the role of citizens in enforcement. This led to a series of articles that form an impressive corpus of scholarship establishing Dave as a thought leader on citizen-based enforcement mechanisms.[19]

---

16. *See* Thomas Landers, *A New Path to Climate Justice: Adaptation Suits Against Private Entities*, 30 GEO. ENVTL. L. REV. 321 (2018).

17. David L. Markell, *The Role of Deterrence-Based Enforcement in a "Reinvented" State/Federal Relationship: The Divide Between Theory and Reality*, 24 HARV. ENVTL. L. REV. 1 (2000).

18. COMPLIANCE AND ENFORCEMENT OF ENVIRONMENTAL LAW (Lee Paddock, David L. Markell, and Nicholas S. Bryner eds. Edward Elgar Publishing 2017); David L. Markell, *Is there a Possible Role for Regulatory Enforcement in the Effort to Value, Protect, and Restore Ecosystem Services?*, 22 J. LAND USE AND ENVTL. L. 549 (2007); David L. Markell, *"Slack" in the Administrative State and its Implications for Governance: the Issue of Accountability*, 84 OR. L. REV. 1 (2005); David L. Markell & Clifford Rechtschaffen, *Improving State Environmental Enforcement Performance Through Enhanced Government Accountability and Other Strategies*, 33 ENVTL. L. REP. 10559 (2003).

19. David L. Markell & John H. Knox, *Evaluating Citizen Petition Procedures: Lessons from an Analysis of the NAFTA Environmental Commission*, 47 TEX. INT'L L. J. 505 (2012); David L. Markell, *The Role of Citizen Spotlighting Procedures in Promoting Citizen Participation, Transparency, and Accountability*, 45 WAKE FOREST L. REV. 425 (2010); *Understanding Citizen Perspectives on Government Decision-Making Processes as a Way to Improve the Administrative State*, 36 ENVTL. L. 651 (2006).

In recent years, Dave fruitfully teamed up with Professor Rob Glicksman of George Washington University Law School (and others) in a series of articles forging a deep analysis of institutional design in the administrative state.[20] That body of work culminated Dave's impressive contribution to scholarly analysis of regulatory institutions and instruments in a time of severe governance challenges.

I moved to Vanderbilt Law School in the fall of 2011 a few months before publication of the final climate change litigation study in the *Florida Law Review*. I kept my vow to avoid empirical work, but eventually relented to start a new empirical project with none other than Dave Markell. Our goal was to test the "business as usual" thesis we reached in the previous study—that courts were not treating climate change as a special case—by rating the degree to which a judge addressed the threat of climate change outside the four corners of the opinion's legal analysis. I found the topic interesting; plus, it was a means of working with Dave again, albeit via email and phone calls. We made a good bit of headway before having to pause in 2017 to attend to other pressing matters. Unfortunately, we have been unable to gear it back up. But it is still a folder in my Dropbox. It will stay there as one of many reminders of how much I valued Dave as a friend and colleague.

---

20. Robert L. Glicksman, David L. Markell, & Justin Sevier, *An Empirical Assessment of Agency Mechanism Choice*, 71 ALA. L. REV. (2020); Robert L. Glicksman & David L. Markell, *Unraveling the Administrative State*, 36 VA. ENVTL L. J. 318 (2018); Robert L. Glicksman, David L. Markell, & Claire Monteleoni, *Technological Innovation, Data Analytics, and Environmental Enforcement*, 44 ECOLOGY L.Q. 41 (2017); David L. Markell & Robert L. Glicksman, *Dynamic Governance in Theory and Application, Part I*, 58 ARIZ. L. REV. 563 (2016); David L. Markell & Robert L. Glicksman, *A Holistic View of Agency Enforcement*, 93 N.C. L. REV. 1 (2014).

THANK YOU, DAVE MARKELL FOR INVITING ME TO PARTICIPATE IN AN IMPORTANT EXPERIMENT IN INTERNATIONAL ENVIRONMENTAL LAW ENFORCEMENT

DAN TARLOCK*

I. INTRODUCTION: AN INVITATION OUT OF THE BLUE TO PARTICIPATE IN NEWS WAYS TO ENFORCE INTERNATIONAL ENVIRONMENTAL LAW 231
II. THE CONTEXT: THE SIDE AGREEMENT'S SPOTLIGHT SUBMISSIONS PROCESS 233
III. ENTER MR. MARKELL AND THE SPECIAL LEGAL ADVISORS 234
IV. SUNSHINE: A SECOND-BEST REMEDY................................ 236
V. CARVING OUT A ROLE 238
VI. CONCLUSION: A WORTHY BUT FAILED EXPERIMENT 239

I. INTRODUCTION: AN INVITATION OUT OF THE BLUE TO PARTICIPATE IN NEW WAYS TO ENFORCE INTERNATIONAL ENVIRONMENTAL LAW

Sometime in 1998, I received a call from a Dave Markell asking if I would be interested in serving as a Special Legal Advisor (SLA) to the Submissions Unit of the Commission (Commission) on Environmental Quality located in Montreal, Canada. I knew that there was an environmental agreement added to the North American Free Trade Agreement (NAFTA) but that is all that I knew. Dave explained that the Commission was part of the Environmental Side Agreement to NAFTA (Side Agreement) and had the power to investigate citizen petitions alleging the under-enforcement of a country's environmental laws.[1] I said yes, primarily because it promised to add airline miles to my account, and the other two SLAs already chosen were two of the most distinguished American scholars in international environmental law, Edith Brown-Weiss and Stephen McCaffrey, as well as good friends. In Professor Brown-Weiss's case, the friendship went back to our college debate team. This call launched one of the most

* A.B., 1962, LL.B., 1965 Stanford University. University Distinguished Professor Emeritus, Illinois Tech, Chicago-Kent College of Law.

1. *See* Steve Charnovitz, *The NAFTA Environmental Side Agreement: Implications for Environmental Cooperation, Trade Policy, and American Treaty Making*, 8 TEMP. INT'L & COMP. L. J. 257 (1994).

rewarding professional experiences in my career because it gave me the opportunity to participate in an important experiment in the enforcement of international environmental legal agreements.

David was the first head of the Submissions Unit. His service lasted only until 2000 because he had received only a two-year leave from the Albany Law School where he was teaching. But, during his brief term, he helped launch a very important experiment in policing the implementation of domestic environmental law by an international organization with no enforcement power. The time was ripe for such an experiment, and Dave's professionalism and work ethic laid a firm foundation for the experiment. The 1990s were an exciting time in international environmental law. Important agreements on biodiversity and climate change came into force. International lawyers were testing out new theories of national sovereignty that included the limited surrender of absolute autonomy to international bodies and experiments with the idea of "soft law," legal obligations not backed by formal enforcement authority.

The Agreement was a very limited surrender of such autonomy to a multilateral body. The challenge that the Commission faced was that the Side Agreement's only real enforcement option was to "spotlight" inadequate implementation of *existing* environmental laws in the three NAFTA countries and thus hopefully shame the country into more effective enforcement. Nonetheless, operating with both hands tied behind his back, David managed to shine high-wattage spotlights on the shortcomings in the enforcement of the laws of each of the three NAFTA countries.[2] Fortunately, David was followed by an equally energetic and committed director, Geoffrey Garver, who diligently implemented David's vision of effective enforcement through public disclosure.

Sadly, the story does not have a happy ending, as all three countries soon decided that they could not tolerate the glare,[3] but nonetheless, David deserves to be honored for launching an experiment that became the model for subsequent trade agreements and that still has valuable positive lessons for twenty-first century environmental governance.[4]

---

2. Telephone interview with Greg Block, the first head of the Commission's legal department. (Oct. 15, 2020).

3. John H. Knox, *The Neglected Lessons of the NAFTA Environmental Regime*, 45 WAKE FOREST L. REV. 391, 392 (2010).

4. *E.g.* Jeff Todd, *Trade Treaties, Citizen Submissions and Environmental Justice*, 44 ECOLOGY L. Q. 39, 130–144 (2017).

II. THE CONTEXT: THE SIDE AGREEMENT'S SPOTLIGHT SUBMISSIONS PROCESS

The history of international environmental agreements is basically one of the failures to address effectively the underlying environmental degradation that triggered the agreement and to devise effective enforcement regimes. The Side Agreement is no exception. It was added to NAFTA after then presidential candidate Bill Clinton announced that he would not sign the Treaty unless additional environmental and labor protections were added.[5] The root concern was that Canada and the United States would be at a disadvantage because Mexican manufacturers would gain a cost advantage as beneficiaries of lax enforcement.[6] Mexico had already been forced in 1988 to adopt a comprehensive environmental law[7] that is actually far more progressive than the already outmoded patchwork of United States laws and Canada's slim legal framework, but the law grants great discretion to the federal government to implement it and the United States deemed its enforcement inadequate.[8] Initially, the United States wanted the power to impose trade sanctions for under-enforcement[9], but in the end, it had to settle for a two track process. The first is a party-to-party dispute settlement process which seems never to have been used. The second is a liberal citizen's submissions process whose effectiveness depends entirely on the "soft power" of disclosure.

Article 14 of the Side Agreement provided "[t]he Secretariat may consider a submission from any non-governmental organization or person asserting that a Party is failing to effectively enforce its environmental law. . . ." This limits the process to the enforcement of existing laws. Any allegation that a country's law is inadequate was rejected as too much of an intrusion on national sovereignty. The requirements are minimal and easy to meet; the biggest hurdle is Section 14.1(d) which precludes a submission that "appears to be aimed at promoting enforcement rather than at harassing industry." The Secretariat has limited discretion to reject a submission that meets the minimum standards. What follows is a

5. *See*, Charnovitz, *supra* note 2.

6. Linda J. Allen, *The Environment and NAFTA Policy Debate Redux: Separating Rhetoric from Reality,* 42 WM. & MARY ENVTL. L. & POL'Y REV. 965, 976 (2018).

7. Ley General de Equilibrio Ecológico y de Protección al Ambiente, Diario Oficial de la Federacion [DOF] 28-01-1998, ultimas reformas DOF 06-05-2010 (Mex.).

8. Nicholas Peters, *NAFTA and Environmental Regulation in Mexico*, 12 LAW & BUS. REV. AM. 119, 122 (2006).

9. Gilbert R. Winston, *Enforcement of Environmental Measures: Negotiating the North American Environmental Side Agreement*, 3 J. ENVTL. & DEV. 29 (1994).

strange legal beast, a Factual Record, at least to lawyers steeped in a legal system based on the filing of a complaint followed by adjudication, findings of fact, conclusions of law, and sanctions for failure to comply.

The Factual Record is limited to the facts. In short, no conclusions, legal or otherwise, can be drawn from the record, and thus there is no remedy for under or inadequate enforcement. As the enormously popular Sargent Friday said on the 50s TV show Dragnet (1951–1957), "[a]ll we want are the facts."[10] Facts, however, can be powerful because they are embarrassing when publicly disclosed. The drafters anticipated this problem, and the Agreement provides two levels of protection to the parties. First, the implementation of the Agreement is controlled by a Council consisting of the three environmental ministers (the head of the EPA for the United States) of the three countries. Before the Secretariat can prepare a record, two of the three council members must agree. Second, a two-thirds majority is also required to publish the record. In the United States, unpublished opinions are not precedent, but they bind the parties, but under the Agreement the spotlight can be disabled and it is as if the Factual Record was never prepared.

III. ENTER MR. MARKELL AND THE SPECIAL LEGAL ADVISORS

David can be characterized as a second-generation environmental law scholar, entering teaching some twenty years after the first wave of environmental scholarship in the late 1960s and early 1970s.[11] Those of us lucky enough to be in the first generation by the accident of birth were primarily concerned with the architecture of regulation and litigation. We entered in the twilight of faith in the New Deal administrative state to make and execute policy in a relatively politically neutral manner. Subsequent scholars have had to pay attention to the backend, effective enforcement, and he has pursued this issue from his very first law review article[12] throughout his distinguished career. David entered

10. The more popular phrase is "all we want are the facts ma'am," but this phrase was actually uttered in a 1953 parody of the tough talking Sargent Friday.

11. See, A. Dan Tarlock, The Arlie House Conference and the Dawn of Environmental Law, in Pioneers of Environmental Law 83 (Jan G. Latos and John Copeland Nagel eds. 2020) (discussing a brief history of the development of the discipline of environmental law in the late 1960s).

12. David L. Markell, *Enforcement Challenges and Priorities for the 1990s: A State Perspective*, 1 DUKE ENVTL. L. & POL'Y F. 30 (1991). After his return to teaching, Dave accepted the unanimous invitation of my then co-authors and me to join a casebook,

teaching after a career in private and public practice and served as Director, Division of Environmental Enforcement, New York State Department of Environmental Conservation for four years prior to entering teaching in 1992. A presentation on New York's enforcement strategies at a CLE caught the attention of Janine Ferretti, the first Executive Director of the Commission, and shortly thereafter he was offered the position as head of the submissions unit at the Commission, whose existence he learned in the telephone call.[13]

In 1998, the head of the Commission's small legal division was a young environmental lawyer named Greg Block who very much wanted to make the submission process work.[14] Greg suggested that that Dave seek help from legal experts in the three countries because examining the effectives of enforcement actions required a detailed knowledge of three different legal systems because they differed substantially.

Mexico is a civil law country. The United States is a very litigious country with a rich tradition of common law judicial precedents in addition to the detailed statutes which formed the basis of environmental law and had already been extensively litigated. Canada depended more on a highly valued civil service to make and implement much less detailed laws compared to the United States law. All three are federal systems, but each system is very different from the others. In addition, all three were federal systems but with substantial differences. Mexico's federal system is much more controlled by the president who has the power to appoint the governors of the thirty-one federal states. The United States has a strong national government balanced by quasi-sovereign states who, in theory, exercise all powers not delegated to the federal government in the Constitution. Canada has a weaker federal system given the long history of colonial provinces. To ensure that the Unit had a sufficient understanding of the nuances of the three legal systems, Dave and Greg assembled a team of nine advisors. The Canadian and Americans were all academics while the Mexicans were a mix of academics and practitioners.

There was almost no precedent for a permanent body of experts with no defined role in the process. Ultimately, two roles, one passive and one active, developed, both of which Dave supported.

Environmental Protection: Law and Policy, first published in 1983. The 8th edition, now Robert Glicksman, William Buzbee, and David Markell, was published in 2019. Dave was unable to work on this edition, but his co-authors retained his name to reflect his contributions to the previous four editions.

13. Telephone interview with Professor Dave Markell (July 13, 2020).

14. Colloquium, *Discussion after the Speeches of John H. Knox, Greg Block, and Andre Beaulieu*, 23 CAN.-U.S. L.J. 425, 427–28 (1997).

The passive role was to reinforce the principle that the Commission for Environmental Cooperation ("CEC") was an international body and thus independent of any national government.[15] The active role was to support the efforts of Dave and his staff to focus the SEM's limited resources on issues that needed spotlighting the most and to turn up the wattage. Block and Markell debated whether to seek the consent of the three governments for the creation of the new group, which was not expressly authorized in the Side Agreement. In the end, they decided only to inform the three governments of the new body but not to seek their consent.[16]

IV. SUNSHINE: A SECOND-BEST REMEDY

When the special legal advisors meet for the first time, there was considerable skepticism among us about the submissions process. To achieve the Agreement, environmental advocates had to give up any effective sanction for the failure to enforce a domestic law. Still, weak as it was, the submission process had limited support from the three governments. This was less worrisome to international environmental lawyers who lived with the root problem of international law: the lack of a "state" to enforce "hard" law. Starting in the 1980s, international environmental lawyers and scholars sought to sidestep the problem by inventing a new category of law, "soft" law. This formally solved the lack of formal enforcement remedies. For example, Professor Edith Brown Weiss, who was instrumental in creating the discipline of international environmental law, sought to adapt a human rights enforcement technique, shaming, as a substitute for formal enforcement.[17] International environmental law was recharacterized, or rebranded, to include letting in sunlight to spotlight the lack of enforcement and strengthening the role of citizen/NGO participation.[18]

---

15. Greg Block remains convinced that the prestige of the advisors, this author aside, served as shield against interference. *Id.* at 425–46.

16. Telephone interview, *supra* note 14.

17. Edith B. Weiss, *Understanding Compliance with International Environmental Agreements: The Baker's Dozen Myths*, 32 U. RICH. L. REV. 1555, 1588 (1998). *See also* Harold K. Jacobson & Edith Brown Weiss, *A Framework for Analysis, in* ENGAGING COUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS (Edith Brown Weiss & Harold K. Jacobson eds., 1998).

18. The is a large literature of the effectiveness of shaming to induce more effective environmental compliance, but there is no consensus about its overall effectiveness. *See* Dustin Tingley & Michael Tomz, The Effects of Naming and Shaming on Public Support for Compliance with International Agreements: An Experimental Analysis of the Paris Agreement 7 (Oct. 7, 2020) (unpublished manuscript), https://scholar.harvard.edu/files/dtingley/files/tingleytomzparis-shame.pdf.

Spotlighting or shaming was clearly a second-best theory, but Dave and his small but extremely dedicated staff were committed to making the experiment work. And they were committed to make it work in the face of increasing pressure from all three governments. With comparatively little discussion, the SLAs decided to take their cue from the Unit and signed on to the experiment.

To do this, the SLAs first had to situate the Commission and submissions Unit in international law as well as define our role in it. As a multilateral agreement, there were only three parties to it, none of which were fully committed to the experiment. One of the first decisions that the SLAs took, consistent with the international status of the Commission, was that we would not act as representatives of our respective countries but would help the Unit carry out its international obligations. Dave furthered this objective by making use of national academic experts on specific legal issues relevant to the factual records or other matters rather than asking us for individual advice on the laws of our respective countries.[19]

This decision was the first of several that simultaneously developed "instant custom"[20] among the group to strengthen the international status of the Commission. We were forced to reenforce this "instant custom" immediately. The Commission had adopted a set of Guidelines interpreting Sections 14 and 15 which laid out a road map for making submissions relatively easy. In keeping with its understanding of the spirit of the Agreement, the goal was to encourage, not discourage, submissions and to move relatively quickly to a decision whether a factual record was warranted. Not surprisingly, the Guidelines were seen as too liberal by all three governments, and the Council immediately proposed changes to weaken them. The governments were more in favor of the United States' litigation model: move to dismiss, delay "discovery," and delay a decision on the merits.

We decided to add our voice to the objections that environmental groups were raising. In a letter, we defended the Guidelines as within the spirit of the Side Agreement. In our formal letter of objection, we diplomatically emphasized that the Commission was

---

19. *E.g.,* Dave consulted with the distinguished international scholar Anne Marie Slaughter and a similar Canadian expert, on the scope of the Commission's authority.

20. Custom, widespread national state practice, is one of the fundamental sources of international law. Recognition is usually based on longstanding practices, but in 1969 the International Court of Justice suggested that custom could be instant. North Sea Continental Shelf (Ger. v. Den., Ger. v. Neth.), Judgment, 1969 I.C.J. 3, ¶¶ 71, 73–74 (Feb. 20). *See generally* Michael P. Scharf, *Accelerated Formation of Customary International Law,* 20 ILSA J. INT'L & COMP. L. 305 (2014).

an international organization with a mandate independent of any interest of the three countries. Dave thought that the presence of the SLAs helped to save the Guidelines.[21]

V. CARVING OUT A ROLE

Neither NAFTA nor the Side Agreement provided any guidance on what the submissions process should hope to achieve beyond the language of Articles 14 and 15. The SLAs informally developed four guiding principles to maximize the impact of Factual Records. These were accepted by David and his successor Geoff Garver. I believe that the principles were sound, although they led to the curtailment of the effectiveness of the process by all three countries who engaged in a mutual race to the bottom and to the disbanding of the SLAs. The principles, which are formally articulated here for the first time, were:

> (1) *The SLAs are Independent Advisors*. We saw ourselves as independent of our countries and the Commission. Not once during my service did any SLA ever voice an interest of his or her country to shape a decision. When asked about a domestic law, we limited ourselves to explaining the general context of the laws in question and of enforcement process at issue in general. In fact, when a more detailed understanding of a country's law was necessary, we encouraged the Director to hire a domestic expert.
>
> (2) *Look for Pattern and Practice Rather Than Isolated Instances.* Pattern and practice is a term borrowed from United States employment law. It basically asks, "is the practice at issue widespread?" We adopted the principle in the hope that a Factual Record might lead to important domestic reforms.[22]
>
> (3) *Don't Let the Process Be Hijacked*. Both NGOs and industry groups, especially in the United States, soon realized that a submission could reinforce ongoing administrative actions or litigation. We recommended that submissions be rejected if it appeared that the submitter

---

21. Telephone interview, *supra* note 14.

22. Mexico had made changes in its environmental assessment process as a result of the first factual record. GARY CLYDE HUFBAUER AND JEFFREY J. SCHOTT, NAFTA REVISITED: ACHIEVEMENTS AND CHALLENGES (2005). *See also* John H. Knox & David L. Markell, *The Innovative North American Commission for Environmental Cooperation*, *in* GREENING NAFTA 1, 7 (David L. Markell & John H. Knox eds., 2003).

had an adequate remedy under domestic law. This allowed the Unit's limited resources to be used on submissions where the submitter had no such remedy.

(4) *Even If You Can't Make the Horse Drink, Lead Him to Water*. As mentioned earlier, the factual record can only disclose; it cannot judge or suggest the changes necessary to remedy the problem at issue. Nonetheless, this tight, constricted envelope can be pushed, and the Unit did.

Under David and his successor, the Factual Records were distinguished by two characteristics which both opened a window on both the structure of a country's domestic law and its application. The first was a detailed analysis of the relevant domestic law, and the second was a thorough investigation of the facts leading to the decision in question. Put differently, the Factual Records pushed the limits imposed by the Side Agreement. Often, the discussions of a country's domestic law showed the weakness of the underlying law to address the environmental issue at hand as well as the discretion given to administrators to underenforce the law. For example, Canada has promoted an image of being green and a leader in environmental protection, especially in the international arena. However, several factual records in Canada revealed significant problems in dealing with environmental degradation because of reliance on weaker, older laws enacted before the modern environmental era.[23]

VI. CONCLUSION: A WORTHY BUT FAILED EXPERIMENT

Initially, the Factual Records that Dave helped launch soon showed positive results. The submissions process began to attract the attention of academics and others, and studies began to appear analyzing the process and trying to determine if these Records had led to subsequent changes in decision-making. However, the preparation and issuance of records that shined a bright light on the lack of effective enforcement proved to be the undoing of the process. The parties were embarrassed but displayed no shame. The most egregious example is that the parties began to narrow the scope of the records to the point of irrelevance.

---

23. A 2010 survey the Factual Records reported: "The majority of petitions that have culminated in an investigation or are still active relate to cases of ineffective implementation of environmental law in Canada or Mexico—eight of these petitions correspond to Mexico, nine to Canada, and two to the United States." Isabel Studer, *The NAFTA Side Agreements: Toward a More Cooperative Approach*, 45 WAKE FOREST L. REV. 469, 476 (2010).

The best example is the United States torpedoing an inquiry into the Migratory Bird Treaty Factual Record. In 1999, a United States environmental group filed an action alleging underenforcement of the federal legislation implementing the 1916 Migratory Bird Treaty.[24] The legislation is a powerful bird conservation law because it protects all migratory birds, not just those listed under the endangered species act and underenforcement has been a persistent criticism. The submission, preparation accepted the submission but to the surprise of the Commission, its preparation of a factual record was approved by the council on the condition that the record be confined to the two examples of a dead bird mentioned in the submission.[25] The Migratory Bird Factual Record demonstrated that nations see little risk in actions which degrade rather than protect the environment when there are no international consequences from doing so. The process continued to limp along but it soon sunk into irrelevance. However, somewhat surprisingly, it survived the 2018 revision of NAFTA. The new Environmental Cooperation Agreement retains the submissions process.[26]

The fact that the Factual Record process's early promise was not fulfilled in no way detracts from the crucial role that Professor Markell played in launching it. The problems that gave rise to the Agreement, continued environmental degradation and the law of effective international enforcement mechanisms, still exist. Thus, the experiment deserves to be remembered and studied[27] and Dave honored for his contribution to international environmental law.

---

24. Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712. The Treaty has been a thorn in the side of the logging industry and extractive industries because it applies to all birds that migrate between Canada and the United States, not just those listed as endangered.

25. Professor Markell has told the story in David L. Markell, *Governance of International Institutions: A Review of the North American Commission for Environmental Cooperation's Citizen Submissions Process*, 30 N.C. J. INT'L L. & COM. REG. 759, 769–773 (2005): "The CEC's final Factual Record for each of the submissions echoes the conclusion that the Council Resolutions dramatically narrowed the scope of broad 'pattern-type' submissions by authorizing factual records focused on isolated instances of alleged ineffectual enforcement." *Id.* at 773.

26. The Side Agreement is now § 24 of the 2020 United States-Mexico-Canada (USMCA) Free Trade Agreement and Environmental Cooperation Agreement (ECA) §§ 27.27-28 carryover the SEM process.

27. Article 20.9 of the Trans-Pacific Partnership contained a citizens' submission process modeled on the NAFTA Side Agreement. *See* CENTER FOR INTERNATIONAL ENVIRONMENTAL LAW, THE TRANS-PACIFIC PARTNERSHIP AND THE ENVIRONMENT: AN ASSESSMENT OF COMMITMENTS AND TRADE AGREEMENT ENFORCEMENT 5 (2015), https://www.ciel.org/reports/tpp_enforcement_nov2015/. The United States refused to sign the trade agreement in 2018, but the other eleven countries did so.

SPEAKING TRUTH TO POWER WITHIN NAFTA

JANINE FERRETTI[*]

David was the first head of the unit at the Commission for Environmental Cooperation (CEC) that reviewed and followed up on citizen submissions alleging lack of enforcement of environmental laws by a government under the North American Agreement for Environmental Cooperation (NAAEC). It was his job to confirm that a submission met eligibility criteria and to lead the investigation. Following the Brandeis principle that "sunshine is the best disinfectant", this innovative tool enabled civil society to make governments accountable in meeting their obligations under an international environmental agreement, as well as more broadly in discouraging "pollution haven" phenomena in the context of free trade.

This of course meant that non-governmental organizations (NGOs) would be watching closely to see if the mechanism they fought so hard to win in the North American Free Trade Agreement (NAFTA) would be given a chance to fully develop and operate as envisioned in the agreement. At the same time, the three governments were nervous about the potential embarrassment and related fallout associated with having the spotlight shone on them. Would the Secretariat, charged with implementing this new tool show favor toward one side or another? Would it be frivolous in its decisions? Would it have the courage to speak truth to power? All eyes were on David.

Working under the close watch of both NGOs and the representatives of the three governments, David set the standard for fairness and balance. His penchant for meticulous analysis and his genuine care for the integrity of the process dispelled any concerns about capriciousness or bias. His work stood up to scrutiny, revealing rigorous research and thoughtful reasoning.

Some of the representatives of the government parties subject to the early citizen submissions began to chafe at the citizen submission process and necessary independence of the Secretariat in that process. David held the course, completely unfazed by the external politicking. We, at the Secretariat, knew that one of the most important features of the NAFTA side agreement was in good hands.

---

* Janine Ferretti is the Vice President for the Office of Compliance Advisor Ombudsman at the World Bank Group, Washington, District of Columbia. Previously she was the Professor of the Practice of Global Development Policy at the Frederick S. Pardee School of Global Studies at Boston University in Boston, MA.

David was a wonderful colleague to all. His thoughtfulness extended to his interactions with his fellow staff members. His deadpan humor provided amusement in the most difficult and absurd moments.

When David left the CEC, he put in place not only the systems for receiving, reviewing, and investigating submissions, but an analytical framework that would ensure accuracy, integrity, and rigor for submission reviews and investigations to come.

A GOOD MAN

JACQUELYN THOMAS*

I was first introduced to Professor Dave Markell on my first day of my second semester of law school. He was my Legislation & Regulation professor. It quickly became apparent that Prof. Markell taught differently than most other law professors. Rather than engage in cold-calling typically associated with law school, he used a system wherein he made a schedule, assigned two students to a given day, and let his students know their assigned days in advance. This took the pressure off a bit, which I believe was the goal, but on your scheduled day, you knew you needed to do the assigned reading and come prepared for a discussion. It would be disrespectful to take advantage of this token of kindness.

One of the not-so-secret secrets about FSU Law is that it has quality professors, and Prof. Markell is no exception. Not one to boast, his resume speaks for itself: prolific professor, academic, and writer, to be sure, having co-authored or co-edited six books and authored or co-authored more than fifty book chapters and articles. He has also worked for the Environmental Protection Agency as an Assistant Regional Counsel; the U.S. Department of Justice's Land and Natural Resources Division, Environmental Enforcement Section; New York State's Department of Environmental Conservation; and the North American Commission for Environmental Cooperation. Apart from his first five years out of the gate after law school, Prof. Markell has dedicated his entire professional career to the environment.

On top of his own professional accomplishments, he comes from a family of accomplished individuals. For example, his brother Jack Markell was the Governor of Delaware from 2009 to 2017, yet I only found out about this intriguing fact through the grapevine during my second year. I asked him about it to confirm, and he responded with a joke about being the less successful brother.

Fall semester of my second year, I took Environmental Law with Prof. Markell. My last name had changed back to my maiden name the summer after my first year, which usually would not matter much in a classroom setting, but Prof. Markell prefers to refer to his students by their last names: Mr. or Ms. [insert surname here]. So, when he was reading down the list of students on the first

---

* Jacquelyn Thomas a Florida State University College of Law graduate from the Class of 2014. A member of the Florida State University College of Law Alumni Association Board. A Litigation and Dispute Resolution associate with the Holland & Knight law firm in Atlanta, Georgia.

day of class to confirm attendance, he said "Ms. Thomas" and looked up, and I raised my hand. When he saw it was me, I saw a flash of confusion and recognition on his face, and then he moved on. He didn't draw attention to it, and I was appreciative. It's odd sometimes the little things that you remember.

During my law school tenure, Prof. Markell was the Associate Dean of Environmental Programs at FSU Law. It turned out that Environmental Law was one of my favorite classes in law school and helped drive my decision to obtain the Environmental Certificate the law school offers. One of the greatest benefits of law school, in my opinion, is the opportunity to take classes that peel back the layers of complexities in American law in order to more fully understand what is going on in the world around me. For better and for worse, law school changed my brain and how I view and interpret the world; now I see everything through a legal lens, always considering the facts and the law. Environmental laws are especially interesting in this respect because they affect so much of our daily lives without us really thinking about it, unless and until something has gone wrong.

My second semester of my second year, Prof. Markell asked me to be one of his research assistants. Specifically, I was tasked with researching the existence, if any, of the extent of climate change adaptation policies implemented by the federal government as part of FEMA's National Flood Insurance Program (NFIP). Spoiler alert: there wasn't a lot to write home about in 2013. I cannot speak to the details of the NFIP as of this writing, but for the sake of those living in a flood basin, I do hope our government is taking seriously the risk of major floods affecting many areas of this country in the decades to come. I do hope our government is coming up with climate change mitigation and adaptation plans in response to these very real threats.

While I didn't have the opportunity to take any classes with Prof. Markell during my third year, we have remained in touch since my graduation. The last time I saw Prof. Markell was on October 29, 2016, when I visited Tallahassee for a football weekend, I reached out to Prof. Markell to let him know that I would be in town, and I can't remember who made the suggestion but it was decided that we would meet at the JR Alford Greenway Trail for a Saturday morning hike. The hike was memorable and special.

I've been thinking a lot recently about what it means to be a good man, especially in the context of the current political and social environment. There's a lot of debate these days about what it means to be a man, what it means to be masculine, what it means

to be toxic, and what it means to be good. I am not sure there is a right answer. What I do know is that for me, personally, a good man is someone who is compassionate, kind, self-confident, respectful, and humble. A supportive spouse (Prof. Markell told me a few months ago how much he's enjoying retirement with his wife), an involved father, an enjoyable colleague, an effective teacher. Prof. Markell is all of these things, which is why I have enjoyed maintaining contact with him over the years. My life has been improved by knowing him, and I am sure there are many, many people who would say the same.

IN CLOSING, AND IN MEMORIAM

SHI-LING HSU*

It is hard to know how to conclude a collection of such rich tributes to such a great person. This is especially true since just before this issue went to press, David Markell finally lost his determined battle with cancer. He passed away on March 22, surrounded by family and by love. He leaves behind a diminished world.

It is hard to do justice to the legacy of Dave Markell. In my own lengthy tenure in academia, I have never met a single individual who was held in such high regard by absolutely *everyone* around him. He alone escaped reproach, for *anything*. He was a brilliant and widely-admired scholar, an inspiring and engaging teacher, a consummate public and academic citizen, active in his synagogue and in philanthropy, and did absolutely, literally, *nothing* that was second-rate or half-hearted (except perhaps clean up and keep order). Above all—it seems unlikely that there could be an "above all" that—he placed the highest priority on his role as a loving and attentive family member.

There is more to say of Dave's merits. As the contributions to this volume attest, he was a prolific and influential scholar. Four times, his articles were selected for reprint in LAND USE AND ENVIRONMENTAL LAW REVIEW, an annual collection of the most important contributions to environmental and land use scholarship. The author or coauthor of six books and legions of scholarly articles and book chapters, his intellectual curiosity took him to varied topics. He was an authority on environmental enforcement and agency governance, but also explored areas such as toxic substances regulation, climate litigation, trade and the environment, and social psychology. As a leader in environmental law in Florida, he developed FSU Law's Environmental Certificate Program. Colleagues chipped in, of course, but he drove that effort, and willed it to success. He leaves behind an instructional legacy of having trained countless excellent lawyers, and instilled in many of them some of his granite-like integrity.

Even those fairly close to him were constantly surprised at his awesome breadth of knowledge and skill. In addition to his intellectual acumen, he was an accomplished athlete, having played collegiate baseball and basketball. I recall hosting the Markells for dinner once, soon after moving here from Canada, and remembering

* D'Alemberte Professor, Florida State University College of Law

his French as being quite good; that was more than a dozen years after he had occasion to learn the language during his own stay in Canada. He would never show off his French! Rather, he delighted in practicing it with my then-young daughter, who had just completed French immersion schooling in Canada. How does a young boy who excelled at academics become such an accomplished athlete? How does a busy and distracted scholar and family man retain his French language lessons for so long? I could go on, but the question already presents itself: how does one person become so adept at so many things?

Dave Markell's secret is hardly a secret: hard, conscientious work. Whatever task was set before him, he pursued relentlessly, with inordinately high expectations of himself. He worked exceptionally hard, all the time, at everything. He was an unusually talented person. But that seems almost irrelevant when juxtaposed with his herculean work ethic. Dave took no shortcuts. All of the generous attention and accolades he received during his bountiful academic career were well-earned. Being an instinctively modest person, he *never* took credit for anything he didn't feel he worked for, applying his own exacting standards.

Beyond his many accomplishments in many endeavors, he was a rock in his community. Whenever something difficult needed to be done, Dave would step up. There is perhaps no greater example of Dave's instinct to serve than his actions after the shocking murder of one of our colleagues, Dan Markel. While everybody, including Dave, was stunned and grieving, it was Dave that gathered himself and looked after Dan's affairs. Marshaling his daughters' social media skills, it was Dave who found and contacted Dan's mother in Canada with the awful news. Familiar with Jewish traditions, Dave directed arrangements for Dan's body. Dave phoned Dan's girlfriend in New York to give her the heartbreaking news. Others would have eventually pitched in to help, but in this crisis, it was Dave who summoned his composure to think and act.

Learning about Dave Markell is like opening up the layers of a Russian nested doll, but with a reverse twist: every time you open up a layer of Dave, what you find inside is something bigger and more impressive than the outer layer. His modesty hid the very best of himself inside the other, observably great parts of his persona. Beyond the many tangible things he accomplished in life, his highest calling was his family. Together with Mona, he raised three outstanding daughters who personify both of their sets of admirable values. When I was being recruited to come to Florida State, I had the pleasure of dining with Dave and others. I was interested in the quality of the schools in Tallahassee, and Dave helped me

understand the secondary schools in the area. Never a braggart, he nevertheless took the opportunity to talk about his successful daughters, but all in the name of recognizing how the schools had helped them succeed. His pride in his family nevertheless shone: the word he used most often to describe all of the Markell women was "conscientious."

There is one final gift, one final layer to the Russian nested doll that Dave leaves with us. Very few, if any, have lived their life with such integrity, hard work, grace, and humility. The life example he set for us is far-reaching, enduring, and cathartic. It is so terribly sad that we lost Dave at such a young age. But the times we currently inhabit are trying ones, all of humanity in desperate need of reminder of the goodness that is still possible in humanity itself. His one final and greatest gift is this: thinking of Dave, and remembering him, serves as that reminder. That example of selflessness and generosity towards others personified by Dave will always be a beacon for those searching for that silver lining of humankind.

PREEMPTION:
THE CONTINUING CHALLENGE

RICHARD BRIFFAULT*

I. INTRODUCTION 251
II. PREEMPTION: THE BASICS 254
  A. *State Authority* 255
  B. *Local Authority* 255
  C. *Is There a Conflict?* 256
  D. *Who Wins in the Case of a Conflict?* 259
III. THE NEW PREEMPTION 259
IV. RECENT DEVELOPMENTS 262
  A. *Continuing Preemption* 262
  B. *Preemption May Be Peaking in Some States* 263
  C. *Conservative "Sanctuaries"* 265
V. PRINCIPLES FOR PREEMPTION 267

I. INTRODUCTION

The decade of the 2010s witnessed the emergence and rapid spread of aggressive state preemption of local government actions. Characterized variously as "hyper preemption,"[1] "superpreemption,"[2] or more simply—by me in prior work—as the "new preemption"[3]—this form of preemption consists of intentional, extensive, and sometimes punitive state efforts to block local action across a wide range of domains—from firearms regulation to the treatment of immigrants, workplace equity to environmental protection, the scope of anti-discrimination laws to municipal broadband and the regulation of the sharing economy.[4]

---

* Joseph P. Chamberlain Professor of Legislation, Columbia University School of Law. This Article grows out of the keynote talk delivered at the Local Autonomy and Energy Law Symposium of the Florida State University College of Law on February 21, 2020. My thanks to the organizers of the Symposium for the opportunity to participate in the Symposium, and to the other participants for their questions and comments. Since the paper was presented, the COVID-19 pandemic triggered a host of new state-local preemption conflicts. This article is limited to the state of the law in early 2020 when the talk was originally delivered. The preemption issues raised by the pandemic and other developments since 2020 require separate treatment.

1. Erin Scharf, *Hyper Preemption: A Reordering of the State-Local Relationship?*, 106 GEO. L.J. 1469, 1473 (2018).

2. Bradley Pough, *Understanding the Rise of Super Preemption in State Legislatures*, 34 J.L. & POL. 67, 69 (2018).

3. Richard Briffault, *The Challenge of the New Preemption*, 70 STAN. L. REV. 1995, 1997 (2018).

4. *See, e.g., id.* at 1999–2004.

This new preemption has roots going back to the turn of this century, and began to build decades ago, but it took off most dramatically after the Republican takeover of many state governments in 2010, and began to draw substantial scholarly attention around 2017-2018.[5]

Preemption battles continue. The challenge posed by preemption to the structure of our state-local relationship continues to grow, even as preemption practices change, and our understanding of how to address the preemption problem evolves. Conservative states continue to add new restrictions on the local government ability to regulate—with respect to plastic bags,[6] e-cigarettes and other tobacco products,[7] telecommunications,[8] and agricultural practices[9]—and to enact new punitive measures, particularly targeting sanctuary cities.[10]

At the end of the decade the conservative preemptive thrust seemed to be plateauing. The 2018 elections resulted in a change in party control in some states, reducing the likelihood they will pass measures targeting progressive city initiatives. Some states, particularly Colorado, have repealed earlier preemptive laws.[11] A handful of state courts have also nipped at preemptive legislation, invalidating the most punitive parts of Florida's firearms preemption law,[12] or rejecting preemption challenges to local

---

5. *See, e.g.*, *id.* at 1997–2002. ALEXANDER HERTEL-FERNANDEZ, STATE CAPTURE: HOW CONSERVATIVE ACTIVISTS, BIG BUSINESSES, AND WEALTHY DONORS RESHAPED THE AMERICAN STATES AND THE NATION 238–42 (describing how state legislatures have preempted progressive local legislation) (Oxford Univ. Press 2019).

6. *See, e.g.*, Samantha Maldonado, et al., *Plastic Bags Have Lobbyists: They're Winning*, POLITICO (Jan. 20, 2020), https://www.politico.com/news/2020/01/20/plastic-bags-have-lobbyists-winning-100587.

7. *See, e.g.*, Sarah Milov, *How the Vaping Industry is Using a Defensive Tactic Pioneered Decades Ago by Big Tobacco*, TIME MAG. (Oct. 2, 2019), https://time.com/5688256/big-tobacco-vaping-preemption-laws/.

8. *See, e.g.*, Katie Kienheim, *Preemption Détente: Municipal Broadband Networks Face Preemption in 19 States, Community Networks*, INST. FOR LOC. SELF-RELIANCE (Aug. 8, 2019), https://muninetworks.org/content/preemption-detente-municipal-broadband-networks-face-barriers-19-states.

9. *See, e.g.*, Jennifer Pomeranz and Mark Pertschuk, *Key Drivers of State Preemption of Food, Nutrition, and Agriculture Policy: A Thematic Content Analysis of Public Testimony*, 33 AM. J. HEALTH PROMOTION 894 (2019).

10. *See, e.g.*, Rick Su, *The State Assault on Local Sanctuary Policies*, LOC. SOL. SUPPORT CTR. (Nov. 2018), https://www.abetterbalance.org/wp-content/uploads/2018/11/Sanctuary-Cities-White-Paper-FINAL-11.1.18.pdf.

11. *See, e.g.*, An Act Concerning the Repeal of the Prohibitions on a Local Government Establishing Minimum Wage Laws Within its Jurisdiction, 2019 Colo. Legis. Serv. Ch, 320 (H.B. 19-1210).

12. City of Weston v. Scott, 2019 WL 4806195 (Fla. 2d. Cir. Ct. 2019).

workplace equity laws in Minnesota.[13] However, it is far too soon to determine whether this is a counter-trend or a temporary blip.

We have also begun to see a reversal in the pattern of conservative states preempting progressive local measures, with some conservative localities resisting progressive state sanctuary policies,[14] and "Second Amendment sanctuaries" challenging new state gun regulations.[15] State marijuana legalization laws in California,[16] Michigan,[17] and Oregon[18] have been countered by a host of a restrictive local zoning ordinances and preemption litigation. More generally, concern that local zoning and land use regulations are driving up the cost of housing, along with growing efforts to get states to force their localities to open up more to affordable housing, are reminders that preemption questions should not be looked at solely through a localist frame.[19]

As the one who coined the "new preemption" phrase, I should also emphasize that the traditional—or classic—preemption involving judicial determinations of whether state laws actually conflict with local laws remains an important factor in sorting out state-local relations. There surely are at least as many classic preemption cases as new preemption cases. Indeed, new and classic preemption are often intertwined, as courts determine exactly what type of local action is preempted by state law.

Old and new preemption are essentially about the same subject: what principles ought to guide the allocation of powers and responsibilities between our state and local governments. I have been part of a group of local government law scholars—including Erin Scharff and Rick Su, who are part of today's

---

13. Graco, Inc. v. City of Minneapolis, 937 N.W.2d 756 (Minn. 2020).

14. *See, e.g.*, City of Huntington Beach v. Becerra, 257 Cal. Rptr. 3d 458 (Cal. Ct. App. 4th Dist. 2020) (charter city seeking to enjoin provision of California Values Act (CVA) which restricts ability of local law enforcement agencies to inquire into immigration status, place individuals on an immigration hold, and use personnel or resources to participate in certain immigration enforcement activities). *See also* Brent Johnson, *Cape May County Sues State Over Immigration Order that Limits How Much County Can Help ICE* (Oct. 29, 2019), https://www.nj.com/politics/2019/10/cape-may-sues-state-over-murphys-immigration-order-that-limits-how-much-county-can-help-ice.html (county challenge to New Jersey law limiting local cooperation in enforcement of federal immigration law).

15. *See, e.g.*, Sheila Simon, *On Target? Assessing Gun Sanctuary Ordinances that Conflict with State Law*, 122 W.VA. L. REV. 817 (2020).

16. City of Riverside v. Inland Empire Patients Health and Wellness Ctr., Inc., 300 P.3d 494 (Cal 2013).

17. *See* Charter Twp. of York v. Miller, 915 N.W.2d 373, 374–75 (Mich. App. 2018); Deruiter v. Twp. of Byron, 926 N.W.2d 268, 269–77 (Mich. App. 2018).

18. Brown v. City of Grants Pass, 414 P.3d 898, 898-900 (Or. App. 2018).

19. *See, e.g.*, John Infranca, *The New State Zoning: Land Use Preemption Amid a Housing Crisis*, 60 B.C. L. REV. 823, 825–26, 828–29 (2019).

program, and Nestor Davidson, Paul Diller, Sarah Fox, Laurie Reynolds, and Richard Schragger—who wrestled with these issues as we prepared a set of "Principles of Home Rule for the 21st Century" for adoption by the National League of Cities.[20]

In my talk today, after a brief explanation of the legal framework of preemption and the basic features of the new preemption, I will focus on preemption developments in the roughly two years—2018 through early 2020—since the initial burst of legal scholarship on the new preemption appeared in 2018. This will review new preemptive measures by state legislatures, state court decisions dealing with preemptive measures, and the appearance of local conservative resistance to state legislation that advances progressive agendas. I will then conclude by considering the preemption principles proposed in The Home Rule NLC 21st Century Home Rule report to see what kind of state-local relationship those principles envision.

II. PREEMPTION: THE BASICS

Preemption refers to the problem that arises when two levels of government—for our purposes, a state and a local government within that state—each of which has authority to act with respect to the same subject adopt laws dealing with that common subject that are arguably in conflict.[21] Each preemption dispute has four questions baked into it. First, in the absence of the state-local conflict, would the state's law be valid? Second, and similarly, in the absence of the state-local conflict, would the local law be valid? Third, are the two laws actually in conflict? Fourth, and assuming the answers to the first three questions are all "yes," whose law prevails?[22]

---

20. *See* Nat'l League of Cities, *Principles of Home Rule for the 21ST Century*, 4-5 (2020), https://www.nlc.org/wp-content/uploads/2020/02/Home-Rule-Principles-ReportWEB-2-1.pdf.

21. *See generally* RICHARD BRIFFAULT ET. AL., THE NEW PREEMPTION READER: LEGISLATION, CASES, AND COMMENTARY ON THE LEADING CHALLENGE IN TODAY'S STATE AND LOCAL GOVERNMENT LAW 1–2 (West Academic Pub. 2019) (laying out the basic structure of the preemption conflict).

22. *Id. See also* RICHARD BRIFFAULT, LAURIE REYNOLDS ET AL., CASES AND MATERIALS ON STATE AND LOCAL GOVERNMENT LAW 553–55 (West Academic Pub. 9th ed. 2022) (summarizing issues of local power and state-local conflict).

A. State Authority

States typically have plenary authority to act on matters within their states, especially with respect to local governments.[23] The federal Constitution and federal laws may occasionally operate to restrict certain types of state actions.[24] State constitutional restrictions on state legislation, such as single-subject rules[25] or substantive restrictions like the Pennsylvania environmental protection article that led to the invalidation of the state's ban on local fracking restrictions, may curtail state legislative power.[26] In dealing with local governments, particular state constitutional limitations on special laws dealing with localities, on special commissions taking over municipal functions, and on unfunded mandates may also limit state power to act.[27] But generally, the answer to the question of state power is "yes."

B. Local Authority

The most important development in the last century with respect to state-local relations has been the rise of home rule. In the mid-nineteenth century, most states adhered to Dillon's Rule, that is, the rule that a local government has only those powers granted expressly by the state or necessarily implied or essential to effectuating the express grant.[28] Preemption was not much of an issue in a Dillon's Rule regime because there was not much to preempt. But beginning in the 1870s, states began to amend their constitutions to give some of their local governments relatively broad powers to act with respect to local or municipal matters. This came to be known as home rule.[29] Today the vast majority of states, acting either by constitutional amendment or by legislation, give many of their cities, and in some states some of their counties, home rule.[30] To be sure, the legal form of home rule and the scope

---

23. *See, e.g.*, BRIFFAULT ET AL., *supra* note 21, at 2–3.

24. *See* BRIFFAULT, REYNOLDS ET AL., *supra* note 22, at 151–77.

25. *See* Richard Briffault, *The Single-Subject Rule: A State Constitutional Dilemma*, 82 ALB. L. REV. 1629, 1629, 1658–59 (2018-2019). Leach v. Commonwealth, 141 A.3d 426, 426–29 (Pa. 2016); Coop. Home Care, Inc. v. City of St. Louis, 514 S.W.3 571, 571 (Mo. 2017) (State constitutional single-subject rules led to the invalidation of state preemptive laws).

26. *See* Robinson Twp. v. Commonwealth, 83 A.3d 901, 901, 913, 940, 1000 (Pa. 2014).

27. *See* BRIFFAULT, REYNOLDS ET AL., *supra* note 22, at 358–90.

28. *Id.* at 390–93.

29. *Id.* at 408–13.

30. *See* DALE KRANE, ET AL., HOME RULE IN AMERICA: A FIFTY STATE HANDBOOK, at 476 tbl.A1, 477 tbl.A2 (2001).

of home rule power vary from state to state, and within some states, from city to city, and a few states still do not provide home rule at all.[31] But in most states, home rule has reversed Dillon's Rule and has resulted in considerable local regulatory authority over local matters. As a result, in most contemporary preemption disputes, local power to act—absent the arguable state law conflict—is not in dispute. Indeed, expanded local power and the increasingly activist use of that power may be said to be one of the sources of current preemption conflicts.

C. Is There a Conflict?

The principal dispute in classic preemption cases is whether the state and local laws are actually in conflict. Conflict can arise in several ways. First, there can be an express conflict; that is, "state law can expressly prohibit local laws on a certain subject,"[32] like the regulation of firearms or polystyrene products.[33] Even then, there can be questions of interpretation, such as whether a single-use plastic bag is a "container or package" within the meaning of the provision of the Texas Solid Waste Disposal Act barring local governments from prohibiting or restricting the sale or use of a container or package "for solid waste management purposes." The Texas Supreme Court in 2018 held that a single-use plastic bag is a container or package within the meaning of the state act, so that the ordinances of twelve different Texas cities restricting businesses from providing their customers with plastic bags were in conflict with the state law and preempted.[34] In a similar decision later that same year, the Texas Court of Appeals held that in the Texas Minimum Wage Act's express prohibition of municipal regulation of wages, the term "wages" also applied to paid sick leave. Therefore, the City of Austin's ordinance requiring employers to provide paid sick leave was in conflict with the state's law.[35]

State and local laws can also come into implied conflict.[36] This can occur in several ways. First, the local ordinance could operate as an obstacle to a state policy. Thus, the Colorado Supreme Court found that a local zoning ordinance prohibiting unrelated,

31. *See* BRIFFAULT ET AL., *supra* note 21, at 3–6.

32. *Id.* at 6–7.

33. *Id.* at 6.

34. City of Laredo v. Laredo Merchs.' Ass'n, 550 S.W.3d 586 (Tex. 2018).

35. Tex. Ass'n of Bus. v. City of Austin, 565 S.W.3d 425 (Tex. App. 2018).

36. *See* BRIFFAULT ET AL., *supra* note 21, at 6–8.

registered sex offenders from living together in a single-family home in residential areas of the city "materially impede[d]" the state's efforts to place juvenile offenders in licensed groups homes.[37] Similarly, the Colorado court's decisions striking down local anti-fracking ordinances turned on the determination that the ordinances created an "operational conflict" with state law because they "materially impede[d] the effectuation of the state's interest" in "the efficient and responsible development of oil and gas resources."[38] Of course, whether a local restriction materially impedes a state policy—as opposed to, say, limiting the policy or diverting it to another locality—is contestable. The New York Court of Appeals held that a local ban on fracking was not an obstacle to state policy because the relevant state law addressed only the safety, technical, and operational aspects of oil and gas extraction, not whether a locality could use its zoning authority to bar fracking within the community.[39]

Alternatively, even though the relevant state law might not literally bar local action on a subject, a court might conclude that state regulation is so extensive that state law has occupied the field leaving no room for local legislation. Thus, in 2019 the Pennsylvania Supreme Court concluded that the state's regulation of public utilities was so pervasive that a local ordinance providing for municipal inspection of utility facilities located in municipal rights of way and imposing maintenance fees on utilities for the occupancy and use of those rights of way conflicted with state law, even though nothing in state law specifically barred either type of municipal measure.[40]

Finally, a particularly common form of implied preemption dispute is "floor or ceiling?," that is, whether the relevant state law simply sets a regulatory floor, with local governments allowed to go further, or whether the state law is both a floor and a ceiling precluding additional and more restrictive local regulation.[41] In other words, if the state sets a speed limit of sixty-five mph, can a city within the state lower the limit to thirty-five mph within the city? The two laws are not necessarily in conflict. A motorist who drives at thirty-five mph within the city complies with the state law, too. But if the state law is interpreted as authorizing

---

37. City of Northglenn v. Ibarra, 62 P.3d 151, 160 (Colo. 2003).

38. City of Longmont v. Colo. Oil & Gas Ass'n, 369 P.3d 573, 577, 582, 585 (Colo. 2016); *cf.* City of Fort Collins v. Colo. Oil & Gas Ass'n, 369 P.3d 586 (Colo. 2016).

39. Wallach v. Town of Dryden, 16 N.E.3d 1188 (N.Y. 2014).

40. PPL Elec. Utils.' Corp. v. City of Lancaster, 214 A.3d 639 (Pa. 2019).

41. *See* BRIFFAULT ET AL., *supra* note 21, at 8–10.

motorists to drive up to sixty-five mph, then a local measure requiring motorists not to drive faster than thirty-five mph is in conflict with the state law. This issue comes up all the time. In 2019, the Kansas Supreme Court held that a Topeka ordinance banning vaping by people under twenty-one was not in conflict with a state law that banned vaping by people under eighteen.[42] The state law set a regulatory floor, but local governments were allowed to be more restrictive. A Michigan court of appeals, also in 2019, reached the opposite result, finding that a county ordinance forbidding the sale of tobacco products to people under twenty-one was in conflict with the state law setting eighteen as the age of majority.[43] In that court's view, people eighteen and up had a state-protected right to buy tobacco products.[44]

The "floor or ceiling" question comes up in multiple other regulatory settings. In January 2020, the Supreme Court of Minnesota concluded that the Minneapolis ordinance setting a higher minimum wage than the state's was not in conflict with the state law because employers in the city could "comply with both the municipal regulation and the state statute" so that "the provisions are not irreconcilable, and therefore no conflict exists."[45] A 2018 Oregon court of appeals decision spotlights just how difficult making this determination can be. The court held that a local ordinance prohibiting a property owner from allowing or hosting a party where a minor consumed alcohol was in conflict with a similar state law because the local ordinance created a strict liability offense, whereas the state law applied only when the host knowingly allowed the minor to consume alcohol.[46] After a deep dive into the legislative history behind the statute, the court concluded that the legislature "deliberately chose to include a culpable mental state" and, thus, also made a "deliberate choice not to punish property owners" lacking the culpable mental state.[47] In other words, the state law set a ceiling on liability and preempted the stricter local law.

42. Dwagfys Mfg., Inc. v. City of Topeka, 443 P.3d 1052 (Kan. 2019).

43. RPF Oil Co. v. Genesee Cnty., 950 N.W.2d 440 (Mich. Ct. App. 2019).

44. *Id.* at 446.

45. Graco, Inc. v. City of Minneapolis, 937 N.W.2d 756, 761 (Minn. 2020).

46. City of Corvallis v. Pi Kappa Phi, 428 P.3d 905, 912 (Or. Ct. App. 2018).

47. *Id.*

D. Who Wins in the Case of a Conflict?

The short answer is that unless the state law violates some specific state or federal constitutional command—like a special act ban or the Equal Protection Clause—the state usually wins. This is especially clear in the many states whose constitutional home rule provisions grant local governments broad powers to act in the first place but expressly revoke local power in case of conflict with state law.[48] In some states, most prominently California and Colorado, the constitutional home rule provision provides some protection from state displacement for local ordinances, particularly those dealing with local government structure, organization, and personnel.[49] But even in those states that build some provision for local immunity from conflicting state laws into their constitutions, the state courts have generally limited that protection to purely local matters, allowing the state frequently to prevail in the many matters that involve a mix of state and local concerns.[50]

As a result, most preemption cases turn on the question of whether there is a conflict, or, secondarily, whether there was some flaw in the state law. State legislation that clearly, comprehensively, and expressly bars local action is very likely to preempt local laws. Those have been among the defining features of the new preemption.

III. THE NEW PREEMPTION

Like classic preemption, new preemption involves state legislation that blocks local action. Although similar in kind, the new preemption is different in degree. Adopted across a wide range of areas—fracking, firearms, minimum wage and employment

---

48. *See* BRIFFAULT, REYNOLDS ET AL, *supra* note 22, at 410–13.

49. *See, e.g.*, Fraternal Order of Police, Colo. Lodge No. 27 v. City & Cnty. of Denver, 926 P.2d 582 (Colo. 1996); State Bldg. & Constr. Trades Council v. City of Vista, 279 P.3d 1022 (Cal. 2012).

50. Thus, California courts have found that many state laws preempt local laws even with respect to regulation of the municipal work force, *see e.g.*, Marquez v. City of Long Beach, 32 Cal. App. 5th 552 (Cal. Ct. App. 2019) (holding that the state minimum wage law prevails against conflicting city charter provision); People *ex rel.* Seal Beach Police Officers Ass'n v. City of Seal Beach, 685 P.2d 1145 (Cal. 1984) (sustaining state law requiring home rule cities to "meet and confer" with public employee union). Colorado courts have held that state laws may displace local regulation of local streets and traffic. *See, e.g.*, Webb v. City of Black Hawk, 295 P.3d 480 (Colo. 2013) (explaining that an ordinance banning use of bicycles on most city streets was preempted by state law); City of Com. City v. State, 40 P.3d 1273 (Colo. 2002) (holding that state law preempts a conflicting city mechanism for enforcing traffic laws).

benefits, anti-discrimination laws, environmental protection, public health, and immigration law enforcement—these laws mark an unprecedented effort to roll back home rule and the growing policy-making role of local governments.[51] Specific targets include: local laws protecting employees from abrupt scheduling changes and ban-the-box laws limiting employer inquiries into the criminal records of prospective employees,[52] plastic bag bans,[53] calorie count and menu labeling rules,[54] pesticides,[55] tobacco products,[56] extending anti-discrimination protections to sexual preference and gender identity,[57] ridesharing platforms,[58] and the removal of Confederate monuments.[59]

Many of these measures are deregulatory and sweeping. Unlike older measures that tended to set a state standard but left open the question of the degree to which local governments could add to or vary from the state rule, the new preemption arises from state laws displacing local regulation of a subject without putting state regulation in its place.[60] The state legislature's program is not uniform statewide regulation instead of varying local rules but often no regulation at all. Many of these preemptive laws are also quite far-reaching. Michigan's so-called Death Star law of 2015—formally, the Local Government Labor Regulatory Limitation Act[61]—prevents local governments from addressing a wide range of employment issues including wages, benefits, paid or unpaid leave, work stoppages, fair scheduling, apprenticeships, employee background checks, and remedies for workplace disputes. The law does not so much occupy the field as achieve the blanket deregulation of it.

A second striking feature of the new preemption has been the imposition of punitive measures against local governments and local officials.[62] Traditionally, preemption operated simply by nullifying the preempted local rules. However, a number of states

---

51. *See* BRIFFAULT ET AL., *supra* note 21, at 17–51.

52. *See* Briffault, *supra* note 3, at 1999.

53. *See* BRIFFAULT ET AL., *supra* note 21, at 24, 27–28.

54. *See id.* at 22, 31–33.

55. *See id.* at 24–25.

56. *See id.* at 20–21.

57. *See id.* at 40–41.

58. *See id.* at 29–31.

59. *See id.* at 41–43; *see also* State v. City of Birmingham, 299 So. 3d 220, 224, 237–38 (Ala. 2019).

60. *See* BRIFFAULT ET AL., supra note 21, at 11–12.

61. MICH. COMP. LAWS. ANN. § 123.1381 (West 2015).

62. *See* Briffault, supra note 3, at 1997.

now authorize punishing local governments or local officials just for adopting, enforcing, or even supporting preempted laws. These punishments range from fines, civil liability or removal from office for the officials to fiscal penalties—such as loss of state aid, fines, or civil liability to private plaintiffs who claim to have been injured by the preempted laws—for the local governments. Most of these punitive measures target local firearms regulation or so-called sanctuary city measures. But Arizona's law—known as S.B. 1487[63]—applies across the board by cutting off state aid to any locality that declines to repeal a measure that the state attorney general determines—in response to a state legislator's complaint—is in conflict with state law. In the first four years following S.B. 1487's enactment, the attorney general opened thirteen investigations of local laws.[64] The resulting threats of state aid cutoffs led Tucson to repeal its ordinance providing for the destruction of any firearms confiscated by the police as part of ordinary law enforcement efforts, and the city of Bisbee's repeal of its plastic bag ban.[65] So, too, the state attorney general "saved" Tempe's dark money disclosure campaign finance reform by effectively neutering its key provisions.[66]

Although there are also preemption disputes between Democratic states and Democratic cities, the preponderance of new preemption actions and proposals have been advanced by Republican-dominated state governments, embrace conservative economic and social causes, and respond to relatively progressive city regulations.[67] Indeed, the new preemption may be seen as testimony to both the increasingly progressive cast of local law-making, particularly in (although not limited to) larger cities, and the emergence of conservative Republican state governments—including in states with large cities—in the aftermath of the 2010 and 2014 elections. Legislatures in these states adopted the deregulatory, anti-local model laws developed by the pro-business American Legislative Exchange Council, industry and trade groups, and other organizations like the National Rifle Association in response to new forms of regulation adopted or considered by

---

63. ARIZ. REV. STAT. ANN. § 41-194.01 (2016).

64. *SB 1487 Investigations*, ARIZ. ATT'Y GEN., https://www.azag.gov/complaints/sb1487-investigations.

65. Briffault, *supra* note 3, at 2006–07.

66. ARIZ. ATTORNEY GEN. Arizona Attorney General, Investigative Report No. 19-001, Re: City of Tempe Ordinance O2017.51 (Campaign Finance Disclosures) (Apr. 10, 2019), https://www.azag.gov/sites/default/files/docs/complaints/sb1487/19-001/19-001_Investigative_Report-FINAL.pdf.

67. *See generally* BRIFFAULT ET AL., supra note 21.

many cities.[68] Although there is nothing inherently conservative-liberal (or Republican-Democratic) about the state-local relationship, the new preemption has clearly been shaped by the interacting partisan and ideological polarizations of our time—much as the change in the state of play of political forces at the state level after the 2018 election affected the more recent developments to which I will now turn.

IV. RECENT DEVELOPMENTS

The last few years have witnessed three developments—continued conservative preemption measures in some states; a turn away from preemption in a few others; and the emergence of a new liberal state-conservative locality dynamic in the areas of immigration law enforcement and firearms regulation.

A. Continuing Preemption

States continue to preempt local minimum wage laws,[69] local plastic bag and polystyrene container regulations,[70] local regulation of tobacco products (including youth smoking and e-cigarettes),[71] local regulation of agricultural operations,[72] and local regulation of multiple aspects of telecommunications.[73] At least twelve states preempted local adoption of sanctuary city policies,[74] and more states now back up their sanctuary policies with punitive measures, such as the cut-off of state discretionary funds and grants[75] and the removal of noncompliant local officials.[76] Florida's 2019 punitive preemption law is not limited to local sanctuary policies but requires the award of damages and costs against a local government if any local ordinance is

---

68. *See* Briffault, *supra* note 3, at 1997–98, 2001.

69. *See, e.g.*, N.D. CENT. CODE. §§ 34-06-23(1)(c), 34-14-09(2) (2019).

70. *Preemption Laws,* PLASTIC BAG LAWS.ORG, https://www.plasticbaglaws.org/preemption.

71. *See, e.g.*, UTAH CODE ANN. § 76-10-116 (West 2020).

72. *See, e.g.*, MO. ANN. STAT. § 192.300 (West 2020) (blanket preemption of county regulations that impose standards or requirements on an agricultural operation that are more stringent than any state rule).

73. *See, e.g.*, FLA. STAT. ch. 2019–131 (2020).

74. *See* Catherine E. Shoichet, *Florida just banned sanctuary cities. At least 11 other states have too*, CNN, (June 14, 2019), https://www.cnn.com/2019/05/09/politics/sanctuary-city-bans-states/index.html.

75. *See, e.g.*, ARK. CODE ANN. § 14-1-103 (West 2020).

76. *See, e.g.*, FLA STAT. ANN. § 908.107 (West 2019).

determined by a court to have been preempted by state law.[77] Other preemptive measures enacted by Florida in 2019 include laws that limit the authority of cities and counties to establish inclusionary housing policies,[78] and preempt local regulation of vegetable gardens on residential properties.[79] Texas was another state actively engaged in preemption in 2019. Among other preemptive measures, the Lone Star State passed laws prohibiting municipalities from requiring disclosure of information related to the value or cost of construction, prohibiting improvement of a residential dwelling as a condition for obtaining a building permit,[80] and limiting local regulation of building products, materials, or methods of construction.[81]

B. Preemption May Be Peaking in Some States

Despite this ongoing preemptive activity, it may be that the push for deregulatory preemption has peaked; a host of bills focused on preemption of local regulation of businesses, local workplace and labor laws, and local anti-discrimination protections failed to pass in 2019 in Florida,[82] Pennsylvania,[83] Texas,[84] and West Virginia.[85] More importantly, some states pulled back from preemption and repealed preemptive measures. Arkansas repealed part of the state law preempting municipal broadband.[86] Colorado became the first state to repeal minimum wage preemption[87] while also enacting legislation allowing localities to raise the age for the sale of tobacco products to 21

---

77. *See* FLA. STAT. § 57-112 (2019).

78. *See* FLA. STAT. §155.04151 (2019).

79. *See* FLA. STAT. ANN. § 604.71 (West 2019).

80. *See* TEX. LOC. GOV'T CODE ANN. § 214.907 (West 2019).

81. *See* H.B. 2439, 86th Leg., Reg. Sess. (Tex. 2019) (adding Title Z, chapter 3000 to the Government Code).

82. *See* H.B. 3, 2019 Sess., Reg. Sess. (Fla. 2019) (preempting of local occupational and professional licensing, died in the Senate Community Affairs Committee).

83. *See* H.B. 331, 2019 Sess., Reg. Sess. (Pa. 2019) (comprehensive preemption of municipal labor regulation, died in committee) https://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2019&sind=0&body=H&type=B&bn=331.

84. *See, e.g.*, S.B. 2486, 86th Leg., Reg. Sess. (Tex. 2019) (preempting local fair scheduling laws, died in chamber); S.B. 2487, 86th Leg., Reg. Sess. (Tex. 2019) (preempting local regulation of paid sick leave family leave, died in chamber).

85. *See* H.B. 2708, 2019 Sess., Reg. Sess. (W. Va. 2019) (preempting a host of local workplace and labor standards, antidiscrimination measures, and consumer protection regulations. Bill died in committee.) http://www.wvlegislature.gov/Bill_Status/bills_history.cfm?year=2019&sessiontype=RS&input=2708.

86. *See* S.B. 150, 92nd Gen. Assemb., Reg. Sess. (Ark. 2019).

87. *See, e.g.*, Colo. Gen. Assemb. H.B. 19-1210, 2019 Reg. Sess. (Colo. 2019).

and to tax and regulate tobacco products.[88] And, strikingly, given the prominence of the Colorado Supreme Court's fracking preemption decisions, a new state law gives local governments a role in the process of approving oil and gas drilling sites and requires the state's oil and gas conservation commission to give greater priority to public health, safety, and environmental concerns.[89]

So, too, there has been some push back on preemption in the courts. In an important decision, the Circuit Court for Leon County Florida held that Florida's punitive preemption law violated long-established principles of legislative immunity, government function immunity, and the state constitution's provision for the governor's removal of local officials.[90] As previously noted, the Minnesota Supreme Court rejected the claim that local minimum wage and paid sick leave ordinances were preempted by less protective state laws. The California Supreme Court determined that the state law permitting telephone companies to use public rights of way does not preempt a local measure conditioning approval of a permit to use a public right of way on aesthetic considerations.[91] And, in a particularly intriguing case, the Nevada Supreme Court determined that the state law banning local regulation of firearms did not preempt a library district law.[92] The district banned possession of a firearm on its premises.[93] The Court held that because the state law specifically targeted only counties, cities, and towns but did not mention library district's ban was not preempted.[94]

However, other recent cases indicate that the courts continue to be an uncertain line of defense against preemption. As previously noted, the Texas Supreme Court sustained the state's plastic bag ban preemption law, and the Pennsylvania Supreme Court found broad state preemption of local public utility and agricultural manure regulation. In 2019, the Alabama Supreme Court found that Birmingham's placement of a plywood screen around a Confederate memorial violated the state's Memorial Preservation Act.[95] The Eleventh Circuit dismissed a federal

88. Colo. Gen. Assemb. H.B. 19-1033, 2019 Reg. Sess. (Colo. 2019).

89. Colo. Gen. Assemb. S.B.19-181, 2019 Reg. Sess. (Colo. 2019).

90. City of Weston v. Scott, 2018 Fla. Cir. LEXIS 9770, *5 (Fla. 2d. Cir. Ct. 2019).

91. T-Mobile W. LLC v. City and Cnty. of S.F., 438 P.3d 239, 250 (Cal. 2019).

92. Flores v. Las Vegas-Clark Cnty. Libr. Dist., 432 P.3d 173, 173 (Nev. 2018).

93. *Id.* at 174.

94. *Id.* at 176–77.

95. State v. City of Birmingham, 299 So. 3d 220, 227–28 (Ala. 2019).

constitutional challenge to Alabama's preemption of Birmingham's minimum wage law.[96] The Ohio Supreme Court, which developed a preemption doctrine that is relatively protective of local governments, determined that Cleveland's requirement that contractors on municipal public works projects hire a portion of their work force from city residents was preempted.[97]

C. Conservative "Sanctuaries"

Perhaps the most significant development in the preemption arena has been the increasingly salient efforts of conservative communities to push back against liberal states. These have focused on the two of the hottest hot-button issues—immigration and guns. In New Jersey, Ocean and Cape May Counties sued in federal court to enjoin the state attorney general's Immigrant Trust Directive limiting local law enforcement cooperation with federal immigration officials.[98] The counties contended the state's action was preempted by the federal constitution and statutes and also violated the state's home rule protections.[99] The court rejected the federal preemption claims and declined to exercise jurisdiction over the supplemental state law claim.[100]

In California, the City of Huntington Beach challenged the California Values Act (CVA), a state law that restricts the ability of local law enforcement agencies to inquire into immigration status, place individuals on an immigration hold, or use local personnel or resources to participate in certain immigration enforcement activities. The city contended that the CVA infringes on the authority of charter cities under the state constitution—which is probably the most locally-protective in the country—to create, regulate, and govern their police forces. The Orange County

---

96. Lewis v. Governor of Alabama, 944 F.3d 1287, 1292 (11th Cir. 2019).

97. City of Cleveland v. State, 136 N.E.2d 466, 478 (Ohio 2019).

98. *See* Vince Conti, *NJ Immigration Tension: County, Sheriff Sue AG,* CAPE MAY COUNTY HERALD (Oct. 16, 2019), https://www.capemaycountyherald.com/news/government/article_231209ea-f04b-11e9-b8f1-5b4d18e2c720.html.

99. County of Ocean v. Grewal, 475 F. Supp. 3d 355, 365–66 (D.N.J. 2020).

100. *See id.* at 386. The court did make one ruling of significance for state and local government law when it determined that the counties had standing to raise the federal supremacy arguments against its state. *See id.* at 367–70. As the court noted, federal courts traditionally held that a local government lacks standing to bring a federal constitutional claim against the state that had created it. *Id.* at 367-68. However, several courts of appeals—including the Second, Fifth, and Tenth—have allowed local governments to bring Supremacy Clause claims against their state, with the Ninth Circuit continuing to adhere to the no-standing rule. *Id.* at 369-70. The issue had not been resolved in New Jersey's circuit—the Third—when the court ruled in favor of the counties on the standing question. *See id.* at 369-70.

Superior Court initially found in favor of the city,[101] but the court of appeal reversed[102] and sustained the application of the CVA to charter cities on the theory, set out in the legislature's findings, that it advances the statewide concerns of public safety, public health, the treatment and welfare of immigrants, and the protection of constitutional rights.[103] The court further held that uniform application of the CVA throughout the state, including within charter cities, was necessary to ensure it achieved its statewide concerns.[104] The court determined that the law intruded on municipal control of the police only to the extent necessary to achieve its goals.[105]

Even more striking has been the rise of "Second Amendment sanctuaries."[106] Due to political changes in which some state legislatures, beginning around 2013 and spreading more rapidly in 2018, became more receptive to firearm regulation a host of local communities have declared themselves to be Second Amendment sanctuaries. As with immigrant sanctuaries, the meaning of sanctuary is ambiguous. Some of the local resolutions are no more than symbolic expressions of discontent with new or proposed state laws. Others call for passive noncooperation, with local officials directed not to enforce state gun regulations. Given that most state laws rely on local officials for enforcement, this could seriously handicap state gun regulation, much as local noncooperation limits federal immigration law enforcement. A handful of local actions go further and sketch out forms of active resistance, such as treating thousands of local residents as part of law enforcement or the (armed) militia.[107] As of early 2020, none of these Second Amendment sanctuary measures have been challenged, so their legal effectiveness is uncertain, and there have been no state efforts to preempt or punish these resisting localities.[108] However, the spread of the movement to include perhaps one-quarter of

---

101. City of Huntington Beach v. State, 2018 WL 756962 (Cal. Super. Orange Co. 2018).

102. City of Huntington Beach v. Becerra, 257 Cal. Rptr. 3d 458, 489 (Cal. Ct. App. 4th Dist. 2020).

103. *Id.* at 481–487.

104. *Id.* at 484–485.

105. *Id.* at 486–489.

106. *See* Richard Briffault, *"Sanctuary" and Local Government Law*, DUKE CENTER FOR FIREARMS LAW (May 6, 2020), https://sites.law.duke.edu/secondthoughts/2020/05/06/sanctuary-and-local-government-law/.

107. *See generally* Jennifer Mascia, *Second Amendment Sanctuaries, Explained*, THE TRACE (Jan. 14, 2020), https://www.thetrace.org/2020/01/second-amendment-sanctuary-movement/.

108. *Id.*

American counties and nearly two hundred cities, towns, or townships is impressive.[109] The Second Amendment sanctuary movement surely underscores the fact that localism has no inherent political valence, and that any principles of preemption need to get past the red state-blue city frame that has shaped recent preemption analysis.[110]

V. PRINCIPLES FOR PREEMPTION

So, are there politically neutral principles of preemption? Are there principles that respect the importance of local self-government and the democratic values local government can advance, while recognizing that states can also play an important role in advancing democratic values and, especially, in addressing the costs—external effects, exclusionary goals, parochial values, and Madisonian-style factional misconduct—that come with localism? I would like to conclude with a brief discussion of the effort, of which I have been a part, which resulted in the National League Cities' Principles of Home Rule for the 21st Century.[111] These Principles of Home Rule give significant attention to preemption and make the following recommendations.

First, that any preemption of a home rule government—these principles are tied to home rule rather than local government status generally—must be express.[112] The Principles explicitly address the floors or ceilings problem and provide that a state standard or requirement must be treated as a floor unless the state clearly provides otherwise. This obviates the difficulty of determining whether when a state adopts a rule or restriction it intends to protect the ability of an individual or firm to engage in all behavior not barred by the rule, or the state has only set a minimum level of regulation, with local governments allowed to go further. It accepts the fact that the often-criticized "patchwork

---

109. See Briffault, *supra* note 106.

110. Further underscoring this point has been the rise of "sanctuary cities for the unborn"—cities and counties in Florida, New Mexico, Texas, Utah and perhaps elsewhere that have declared their hostility to abortions within their jurisdiction. *See generally* Emily Wax-Thibodeaux, *Anti-Abortion Law Spreads in East Texas as Sanctuary City for the Unborn Movement Expands*, WASHINGTON POST (Oct. 1, 2019), https://www.washingtonpost.com/national/antiabortion-law-spreads-in-east-texas-as-sanctuary-city-for-the-unborn-movement-expands/2019/09/30/cfef46d8-daf1-11e9-bfb1-849887369476_story.html; Harmeet Kaur, *Small Towns in Texas are Declaring Themselves "Sactuary Cities for the Unborn"*, CNN (Jan. 25, 2020), https://www.cnn.com/2020/01/25/us/sanctuary-cities-for-unborn-anti-abortion-texas-trnd/index.html.

111. *See generally* Nat'l League of Cities, *supra* note 20.

112. *Id.* at 24, 45.

quilt" of varying local regulations is simply the flip side of the diversity and experimentation that local self-government is intended to encourage.

Although a complete ban on implied preemption has its critics[113]—after all, there are some situations in which a parochial local law is an obstacle to the effectuation of a state program and may have external effects for other local governments—it is a straightforward means of promoting local self-government without challenging ultimate state supremacy. The state legislature may still preempt; it just has to show that it clearly intends to do so. Perhaps the main effect of an express preemption requirement will be to prevent private individuals or firms from making preemption arguments to block local regulations in situations where it is not at all clear that the state government actually intended to preempt local action.

Given that the ban on implied preemption still permits express preemption, the issue remains whether and how to craft limits on a state's authority to expressly preempt local action. That, after all, is what the challenge of the new preemption is all about– express preemption.

So, the second NLC recommendation proposes a set of requirements that a preemptive measure must meet. Instead of attempting to distinguish between local and state—or predominantly local and predominantly state—interests as some state courts have tried to do,[114] the NLC Principles propose that a state may preempt only if the state law is (a) narrowly tailored to advancing a substantial statewide interest, and is (b) a general law, as defined by a further four-part test that requires not simply that the law apply statewide but that it be a police, sanitary or similar regulation that prescribes a rule for citizens generally rather than a measure targeting local governments.[115]

This test essentially staples together the preemption standard developed and repeatedly applied by the California Supreme Court over the last three decades that a state law, to be preemptive, must be narrowly tailored to advancing a statewide interest[116] with the Ohio Supreme Court's distinctive and more stringent

---

113. *See, e.g.*, Paul Diller, *Intrastate Preemption*, 87 B.U. L. REV. 1113, 1157–5859 (2007).

114. *See, e.g.*, City of Northglenn v. Ibarra, 62 P.3d 151, 155 (Colo. 2003).

115. Nat'l League of Cities, *supra* note 20, at 56–59.

116. *See, e.g.*, State Bldg. & Const. Trades Council v. City of Vista, 279 P.3d 1022 (Cal. 2012); Johnson v. Bradley, 841 P.2d 990, 1000 (Cal. 1992).

definition of "general law."[117] Both tests have had some success in providing some protection for local governments from preemption, although the 2019 Ohio Supreme Court decision holding Cleveland's local-hire-preference law preempted[118] demonstrates they provide no guarantees. But at least these tests require the state—or the person or firm making the preemption claim—to show that preemption advances the state's interest in promoting the interests of its people and that it is no more of an intrusion into local self-government than it needs to be.

To be sure, the different parts of the test—and the fact that both prongs need to be satisfied may be challenged as placing too great a restriction on the ability of states to implement comprehensive solutions to regional or statewide problems. Moreover, the concept of "substantial statewide interest" is quite open-ended. It is far from clear what interests will qualify. Indeed, the Principles would give the courts an important role in making that determination and, thus, in deciding whether a state law is preemptive. However, the judicial concern would not be with the state legislature's intent—which is the focus of the implied preemption analysis—but, rather, whether a law intended to preempt may be permitted to do so in light of its goals and its impact on the state-local balance. Rather than the traditional regime in most states of judicial deference to a legislative determination to preempt, preemption would require a judicial determination that would consider the consequences of preemption for local self-government.

To that extent this new model of preemption—which has only just been proposed and which, I hasten to add, is the law nowhere right now—is a return to the older vision of home rule known as *imperium in imperio*.[119] The first home rule amendments, adopted in the late nineteenth century, sought to give home rule cities not only the broader powers to act traditionally denied them under Dillon's Rule but also to protect such local initiatives concerning local or municipal matters from state displacement. That turned out not to work too well. State courts were reluctant to give "local" or "municipal" broad meanings in state-local conflict cases. Those decisions had the effect of narrowing the meaning of "local" or "municipal" even when only the local initiative power was at issue. The new form of home rule developed in the middle of the

117. *See, e.g.*, City of Dayton v. State, 87 N.E.3d 176, 192 (Ohio 2017); City of Canton v. State, 766 N.E.2d 963, 966 (Ohio 2002).

118. City of Cleveland v. State, 136 N.E.3d 466, 466 (Ohio 2019).

119. *See* BRIFFAULT, REYNOLDS ET AL, *supra* note 22, at 409–10.

twentieth century sought to address this problem by giving local governments broad powers to act—all the power the legislature could delegate is presumptively delegated—subject to the state's power to take back local authority.[120]

That solution worked well enough for a time, but the new preemption has raised the question of whether there needs to be some constraint on the state's ability to take back power back from its local governments. It may be that the only legally enforceable way to do that is by the adoption of constitutional constraining principles that invite judicial enforcement. Perhaps now with home rule better established and with language that does not link the constraint on preemption to the existence of a "local" or "municipal" subject, this would work out better for local self-government than before. We will have to wait and see if any state adopts these Principles, and how they work.

---

120. *Id.* at 410–13.

THE LOCALIST CONSTRAINTS OF ENERGY LOCALISM

RICK SU*

I. INTRODUCTION 271
II. THE TURN TOWARD ENERGY LOCALISM 273
  A. *Energy Centralization* 273
  B. *The Localized Impacts of Energy Law* 275
  C. *The Rise of Localism* 279
III. THE LIMITS OF ENERGY LOCALISM 282
  A. *Democratic Representation* 283
  B. *Local Authority* 286
  C. *External Relations* 290
IV. STRENGTHENING ENERGY LOCALISM 293
V. CONCLUSION 295

I. INTRODUCTION

What regulations should be imposed on unconventional gas extraction techniques like hydraulic fracturing and horizontal drilling? What incentives, if any, should be given to encourage the use of renewable energy sources such as wind and solar? Should concerns about climate change guide policies regarding the nation's energy future? And what kind of steps should be taken to address the economic impacts and job losses that those policies might bring?

Energy law has long been concerned with these questions. But, a shift is now underway with respect to who should be involved in making these decisions. For more than a century, it was imagined that energy law could only be established at the highest levels of government—if not by the federal government, then certainly by the states. In recent years, however, a growing number of energy scholars are turning their attention to the local level. Some believe that local residents should be given more say over what energy policies are adopted.[1] Others suggest that local communities be given an explicit veto over energy proposals altogether.[2] All the while, many question the wisdom of centralization in energy law,

---

* Professor, University of North Carolina School of Law.

1. *See* Sean F. Nolon, *Negotiating the Wind: A Framework to Engage Citizens in Siting Wind Turbines*, 12 CARDOZO J. CONFLICT RESOL. 327, 328, 330–31 (2011); Hannah J. Wiseman, *Disaggregating Preemption in Energy Law*, 40 HARV. ENVTL. L. REV. 293, 293, 295, 302 (2016).

2. *See* David B. Spence, *The Political Economy of Local Vetoes*, 93 TEX. L. REV. 351, 412 (2014).

especially its traditional focus on administrative policymaking.[3] Increasingly, energy scholars are embracing local governments as a means of expanding participatory democracy.[4]

This Essay embraces the localist turn in energy law—a turn that I refer to as "energy localism." It questions, however, whether the democratic aims of energy localism can be achieved through the types of local governments that are often at the front lines of energy disputes. My concerns are not those ordinarily associated with decentralization more generally: that they lead to legal patchworks, empower amateur lawmakers, or privilege parochial interests. In most cases, I do not believe these concerns outweigh the instrumental and expressive values of local participation, or that these concerns cannot otherwise be managed through other means. Rather, my worry is with respect to the democratic capacity of local governments themselves, especially the rural counties and towns where most energy developments are located.[5] Are they legally structured to provide meaningful representation for their residents? Do they have the legal authority to channel their residents' interests into tangible policies? And can they do so given the political influence and deep pockets of the energy industry?

I raise these concerns not because I believe that energy localism is not worthwhile. Nor do I believe that local governments are not the appropriate forum to which energy policymaking might be decentralized. Rather, my goal here is to point out ways in which localism in general, and rural localism in particular, might be enhanced in order to effectuate the vision of energy localism set out by its supporters. In other words, proponents of energy localism should be just as concerned about reforming localism as they are about reforming energy law. This essay makes the case for that approach. In addition, it offers some thoughts on what those reforms might be.

This Essay proceeds as follows. Part I describes the rise of energy localism and how it challenges the centralization that has long dominated the development of energy law. Part II examines the legal structure and democratic organization of rural local governments and how that might affect their role in energy policymaking. Taken together, Part III considers how the prospects

---

3. *See* Ann M. Eisenberg, *Alienation and Reconciliation in Social-Ecological Systems*, 47 ENVTL. L. 127, 171 (2017).

4. *See, e.g.*, Kacper Szulecki, *Conceptualizing Energy Democracy*, 27 ENVTL. POL. 31, 23–24 (2018).

5. *See generally*, Rick Su, *Democracy in Rural America*, 98 N.C. L. REV. 837, 839 (2020).

for energy localism might be enhanced through structural reforms to rural local governments. All of this is followed by a brief conclusion.

II. THE TURN TOWARD ENERGY LOCALISM

Energy law is at a crossroads. The traditional view of energy law is as a specialized field based on centralized policymakers, administrative rule-making, and an exclusive focus on the national interest. But in recent years, an increasing number of energy scholars are beginning to question this top-down perspective. This Part outlines these competing perspectives and maps the beginnings of the transition from the former to the latter. It begins with an explanation of why energy law has long been considered a case study in centralization. It then describes why some energy scholars are beginning to turn their attention to the local level and the proposals now giving rise to energy localism. At the heart of this shift, I argue, is not just a reconsideration of the level of government responsible over energy law, but more importantly a rethinking of the relative value of administrative rule-making versus democratic accountability.

A. Energy Centralization

The traditional view of energy law assumes a top-down perspective. And the reason for this is normally considered to be both descriptive and normative. Descriptively, energy law since its beginning in the late nineteenth century has been increasingly centralized at higher levels of government and increasingly through rules developed by specialized agencies. Normatively, it is imagined that this centralization is necessary to deal with the scope, complexity, and significance of energy policies.

Energy law emerged as a distinct field in the late nineteenth century when comprehensive regulations were adopted at the state and federal levels.[6] As the importance of energy became apparent during the industrial revolution, states across the country adopted laws governing the extraction of gas, coal, and oil, especially where those deposits were most prevalent.[7] Later, as it became clear that energy was central to economic development and national security, the federal government assumed control over energy production and markets in the early twentieth century—both in response to

---

6. Joseph P. Tomain, *The Dominant Model of United States Energy Policy Focus on Natural Resources Theory*, 61 U. COLO. L. REV. 355, 356–57 (1990).

7. *See, e.g.*, *id.* at 357.

surpluses during the Great Depression and shortages during the Second World War.[8] And as new energy sources emerged in the mid- to late-twentieth century, the path toward regulatory centralization continued. The Federal Power Commission (the precursor to the Federal Energy Regulatory Commission) was given responsibility over hydroelectric power in the 1920s.[9] The Atomic Energy Commission (the precursor to the Nuclear Regulatory Commission) was granted plenary authority over civilian nuclear power in the 1940s.[10] And with the recent rise in renewable energy, it is the state and federal governments that have been primarily responsible in guiding its growth through renewable energy targets, subsidies, and tax incentives.[11]

Of course, energy was not the only area of law where regulatory centralization occurred, especially during the rise of federal power in the twentieth century.[12] But given the nature of energy production and distribution, centralization in this area appears to be particularly apt. After all, energy projects often span multiple jurisdictions, be it electric transmission grids that serve a broad region in a particular state, or gas and oil pipelines that cross the entire country.[13] At the same time, energy itself was becoming an increasingly technical field. Technological innovations enhanced the scope and capabilities of energy producers. But it also made it harder to assess their efficacy or balance their economic benefits against societal costs. Only policymakers at the highest levels, it was imagined, had the necessary vantage to capture all the competing interests.[14] Only specialized agencies, it was believed, could muster the experts and know-how needed to understand how these technologies worked.[15]

---

8. *See* RICHARD H. K. VIETOR, ENERGY POLICY IN AMERICA SINCE 1945: A STUDY OF BUSINESS-GOVERNMENT RELATIONS 15–16 (Louis Galambos & Robert Gallman eds. 1987).

9. JULIE A. COHN, THE GRID: BIOGRAPHY OF AN AMERICAN TECHNOLOGY 78 (2017).

10. STEPHANIE A. MALIN, THE PRICE OF NUCLEAR POWER: URANIUM COMMUNITIES AND ENVIRONMENTAL JUSTICE 133–34 (2015).

11. *See* KATRIN JORDAN-KORTE, GOVERNMENT PROMOTION OF RENEWABLE ENERGY TECHNOLOGIES: POLICY APPROACHES AND MARKET DEVELOPMENT IN GERMANY, THE UNITED STATES, AND JAPAN 82–85 (2011).

12. *See, e.g.*, *generally*, Hugh Rockoff, *By way of analogy: The expansion of the federal government in the 1930s, in THE DEFINING MOMENT: THE GREAT DEPRESSION AND THE AMERICAN ECONOMY IN THE TWENTIETH CENTURY* 125 (1998)

13. *See, e.g.*, Max Hensley, *Power to the People: Why We Need Full Federal Preemption of Electrical Transmission Regulation*, 46 U. MICH. J.L. REFORM 1361, 1366–67 (2013); Megan O'Rourke, *The Keystone XL Pipeline: Charting the Course to Energy Security or Environmental Jeopardy*, 24 VILL. ENVTL. L.J. 149, 250 (2013).

14. *Cf.* Brian Galle & Mark Seidenfeld, *Administrative Law's Federalism: Preemption, Delegation, and Agencies at the Edge of Federal Power*, 57 DUKE L.J. 1933, 2009 (2008).

15. *See* Frank N. Laird, *Technocracy revisited: knowledge, power and the crisis in energy decision making,* 4 Industrial Crisis Quarterly 49, 53 (1990).

But perhaps the main reason why energy law is traditionally viewed from a centralized perspective is because of the stakes involved. In other words, the consequence and impact of energy policy just seems too big, too significant, and too expansive to be left to local jurisdictions. Energy is central to our nation's economic development and global competitiveness—not only because energy fuels our economy, but also because energy is itself a major sector in the global marketplace.[16] Energy has long been associated with national security and foreign affairs, as reflected in the role of energy in shaping our military engagements and the use of energy sanctions to exert diplomatic pressure.[17] Indeed, one of the biggest arguments for expanding domestic energy production is the achievement of energy independence as a means of limiting our dependence on foreign sources and, as a result, the need for military engagements around the world.[18] And with the onset of climate change, there is only more reason to believe that our energy future depends on national, if not international, policies and accords.

Given all this, it is not surprising that energy law has traditionally been viewed from the top-down. It is not just that energy policies today are primarily established at the state and federal levels, and through the guidance and expertise of administrative agencies. It is also the commonly-held view that in the context of energy, the stakes are simply too important, the challenges too big, and the impact too expansive to be left to the meddling of local policymakers and the whims of ordinary citizens.[19] If anything, it is believed that reforms should be directed towards more centralization of energy policymaking, not less.

B. The Localized Impacts of Energy Law

But as much as the top-down perspective captures about the nature of energy in the United States, it also obscures an important

---

16. *See generally*, Martha Caldwell Harris, *The globalization of energy markets*, *in* Challenges of the Global Century 271 (2001).

17. *See generally*, ANDREW T. PRICE-SMITH, OIL, ILLIBERALISM, AND WAR: AN ANALYSIS OF ENERGY AND US FOREIGN POLICY 50–51, 75, 82, 86 (2015).

18. *See generally*, JAY HAKES, A DECLARATION OF ENERGY INDEPENDENCE: HOW FREEDOM FROM FOREIGN OIL CAN IMPROVE NATIONAL SECURITY, OUR ECONOMY, AND THE ENVIRONMENT 7, 101 (2008).

19. *See* Nolon, *supra* note 1, at 330 ("However, in the context of decision-making intended to fully incorporate a range of concerns, 'citizen involvement' refers to a more inclusive, transparent and responsive process. Many agencies resist more robust levels of citizen involvement at the policy development stage, preferring to rely on the minimal processes with which they are familiar. Resistance to this level of citizen involvement is endemic and springs from beliefs [and experiences] that engaging citizens takes too long, is too costly, and results in sub-optimal solutions.").

fact: the uneven and localized impact that energy production has on certain parts of the country. Energy operations are not evenly distributed across the nation, but tend to be concentrated in specific communities—primarily rural, often poor, and frequently those belonging to people of color.[20] It is these communities that disproportionately bear the cost of energy policies.[21] And this geographic split is also why energy politics is so fraught, especially when it intersects with partisan and regional identities.[22] In other words, the importance of energy may be national and global. Yet it is often at the local level where many of the impacts of energy policy are most acutely felt.

This uneven and localized impact of energy law and development is, of course, not new. The energy sector—from extraction, to production, to distribution—has long centered in certain communities, many of which are in rural areas. Coal and oil extracted from rural Appalachia drove the industrialization of America's major cities in the late nineteenth century.[23] And while the earliest power plants were located in or near the cities themselves, later advances in transmission technology led newer facilities to be sited in more remote areas.[24] Hydroelectric was one of the earliest clean energy sources to be developed. But by nature of its technology, it too was located in largely rural areas and often required damming that altered the rural landscape and the livelihood of surrounding communities.[25] Even thermonuclear power, which once promised "infinite energy" and could theoretically be located anywhere, still had a disproportionate impact on rural locales; that is, uranium is mined in rural

20. *See, e.g.*, Yelena Ogneva-Himmelberger & Liyao Huang, *Spatial Distribution of Unconventional Gas Wells and Human Populations in the Marcellus Shale in the United States: Vulnerability Analysis*, 60 APPLIED GEOGRAPHY 165, 168, 171, 173 (2015).

21. *See* Loka Ashwood, *Rural Conservatism or Anarchism? The Pro-State, Stateless, and Anti-State Positions*, 83 Rural Sociology 717, 735 (2018); Spence *supra* note 2, at 357–58, 367.

22. *See generally*, Hari M. Osofsky and Jacqueline Peel, *Energy Partisanship*, 65 EMORY L.J. 695 (2016).

23. *See, e.g.*, RONALD D. ELLER, MINERS, MILLHANDS, AND MOUNTAINEERS: INDUSTRIALIZATION OF THE APPALACHIAN SOUTH, 1880–1930, at 128 (1982).

24. *See* Hannah J. Wiseman, *Urban Energy*, 40 FORDHAM URB. L.J. 1793, 1794–95 (2013).

25. *See, e.g.*, CHRISTOPHER J. MANGANIELLO, SOUTHERN WATER, SOUTHERN POWER: HOW THE POLITICS OF CHEAP ENERGY AND WATER SCARCITY SHAPED A REGION 7–8 (2015).

communities,[26] the reactors located at the outskirts of the metropolitan regions, and the disposal of spent nuclear waste concentrated in remote locations.[27]

And despite the optimism that some have expressed about the next energy revolution,[28] geographic imbalances persist even as renewables have become more prevalent. Large-scale renewable energy projects still dominate, and rural areas continue to be where they are built. Some of this reflects the locations where renewable resources like wind and sunlight are plentiful, much like the siting of hydroelectric facilities in earlier eras.[29] Another reason is the economics of real estate, which makes urban and suburban locations costly and unprofitable.[30] And while the detrimental impacts of renewable energy are far less onerous than those associated with fossil fuels and nuclear energy, they are not entirely costless. Solar farms occupy land that might otherwise be dedicated to farming or grazing.[31] People complain wind turbines mar the natural environment,[32] and does not substitute for other rural industries like mining.[33] Technology is revolutionizing the future of energy production, but they continue to impose discrete and concentrated impacts at the local level.

For many communities then, the impact of energy policy is not only more significant and immediate than the effect on our nation as a whole. It is also in many cases tied directly to the fate of their communities. Some communities are economically dependent on existing energy operations, afraid that any changes in energy policy

---

26. *See* MALIN, *supra* note 10.

27. *See* Richard S. Krannich et al., *Rural Community Residents' Views of Nuclear Waste Repository Siting in Nevada, in* PUBLIC REACTIONS TO NUCLEAR WASTE: CITIZENS' VIEWS OF REPOSITORY SITING 263, 263–64 (Riley E. Dunlap et al., eds. 1993).

28. *See generally*, Hannah J. Wiseman, *supra* note 24 (looking forward to the proliferation of proliferation of roof-top solar panels and small wind turbines that will generate power where they are needed).

29. *See* Samantha Gross, *Renewables, Land Use, and Local Opposition in the United States*, Brookings Institution, Jan. 2020, at 8–9, https://www.brookings.edu/wp-content/uploads/2020/01/FP_20200113_renewables_land_use_local_opposition_gross.pdf.

30. *See* Brittany Patterson, *Cities and Towns Choose Renewables to Save Money*, Scientific America, Mar. 26, 2015 (describing how solar farms are developed on cheap land and then transmitted to metropolitan regions where it is needed), https://www.scientificamerican.com/article/cities-and-towns-choose-renewables-to-save-money/.

31. *See* Scott Dance, *As massive solar farms blossom, officials face conflict between state energy policy and local preferences*, Baltimore Sun, Oct. 15, 2016, https://www.baltimoresun.com/maryland/bs-md-renewable-energy-conflict-20161015-story.html.

32. Adam Hochberg, Wind Farms Draw Mixed Response in Appalachia, NPR, Mar. 27, 2006, https://www.npr.org/templates/story/story.php?storyId=5300507.

33. *See* Doug Struck, *Power pivot: What happens in states where wind dethrones King Coal?*, C.S. Monitor, Aug. 21, 2020, https://www.csmonitor.com/Environment/2020/0821/Power-pivot-What-happens-in-states-where-wind-dethrones-King-Coal.

will erode job prospects and endanger their survival.[34] Others are forced to bear the health and environmental costs of these industries, worried about losing more of the natural beauty that has long defined their communities, or the lives of those who they hold most dear.[35] And in too many cases, these two communities are one and the same. The concentration of refineries along the Mississippi River in Louisiana generates jobs and tax revenues necessary for the survival of the communities around them.[36] Yet it also those refineries, and the effect of their operations on neighboring residents, that is the reason the area is widely known as "Cancer Alley."[37] These competing concerns are difficult to balance on their own. They are made even more difficult by divides within the communities themselves and the fact that the residents who depend on certain industries for their livelihood are not always the same ones that suffer those industries' most significant costs.[38] While some ask whether their communities can survive without oil, gas, or coal, others worry whether their communities can survive *with* them.[39]

Nor are these questions easier in the communities that have benefitted from new and expanding energy sectors. Take, for example, the rapid growth of unconventional gas drilling, which has made available deposits that were once deemed inaccessible.[40] Like the oil boom that came before, many communities have become boomtowns overnight, as gas companies descend to secure drilling rights and imported workers arrive to extract on their behalf.[41] But with the increase in population and tax revenue comes new challenges: increased traffic, overcrowded schools, shortage of housing, and increased cost of living, among others.[42] These challenges also create rifts in the community—between old-timers and newcomers, between those who profit and those who do not, between the interests of local governments and their residents. And

---

34. *See* Will Wright, *Can Biden Keep Coal Country From Becoming a 'Ghost Town'?*, NY TIMES, Mar. 5, 2021.

35. *See generally*, ELIZA GRISWOLD, AMITY AND PROSPERITY: ONE FAMILY AND THE FRACTURING OF AMERICA 4–6 (2018).

36. STEVE LERNER, DIAMOND: A STRUGGLE FOR ENVIRONMENTAL JUSTICE IN LOUISIANA'S CHEMICAL CORRIDOR 168 (2006).

37. *See id.* at 43.

38. *See id.* at 61–62.

39. *See id.* at 45–46.

40. *See* J. David Hughes, *Reality check on the shale revolution.* 494 *Nature* 307, 307 (2013).

41. *See* Chip Brown, *North Dakota Went Boom*, N.Y. Times Magazine, Jan. 31, 2013, https://www.nytimes.com/2013/02/03/magazine/north-dakota-went-boom.html.

42. *See* Thomas Gunton, *Natural Resources and Regional Development: An Assessment of Dependency and Comparative Advantage Paradigms*, 79 ECON. GEO. 67, 70 (2003).

hanging over all of this is the uncertainty of the energy markets; the knowledge that the boom might end with the next economic downturn, and the decisions of foreign governments. For better or worse, energy ties local communities to the broader global economy. We are already beginning to see the consequences of this as COVID-19 has upended the economics of these energy sectors.[43]

All of this suggests that when it comes to energy law, many of the policy battles are structured as zero-sum games. It is easy to imagine win-win solutions abound, especially in the long term and with national interests in mind. Renewable energy, for example, is touted as a way to not only combat climate change but also for the new jobs that would be created.[44] But as J.B. Ruhl warned, it is also important to recognize that in the short-term and with an eye toward different segments of the population, there are significant trade-offs that must be accounted for.[45] Even if renewables will eventually benefit everyone, the transition from conventional energy sources will benefit some while imposing costs on others. And given how energy production is localized, these benefits and costs will be distributed unevenly between different parts of the United States.

This is probably why even if energy policies *should* be made from a national perspective, the actual politics is both geographically and ideologically split. Agricultural communities support biofuels. Coal and gas areas rally behind fossil fuels. While wind and solar facilities are welcomed in certain communities, they are perceived as threats in others.[46] All the while the urban-rural split that now dominates partisan politics becomes the lens through which energy policies are viewed.[47]

C. The Rise of Localism

Energy production and the policies that guide it impose uneven and localized impacts on communities across the country. It is this fact that has, in recent years, led to the rise of energy localism. Increasingly, scholars are beginning to grapple with the local

---

43. *See* Tamir Kalifa & Clifford Krauss, *'This Feels Very Different',* NY TIMES, May 1, 2020 (describing the collapse of Texas Oil Boomtowns as a result of COVID-19), https://www.nytimes.com/2020/05/01/business/energy-environment/oil-industry-texas-coronavirus.html."

44. *See* J.B. Ruhl & James Salzman, *Why Environmental Zero-Sum Games are Real*, *in* BEYOND ZERO-SUM ENVIRONMENTALISM 1 (Sarah Krakoff, et al., eds. 2019).

45. *See id*. at 7–9.

46. *See* Kate K. Mulvaney et al., *A Tale of Three Counties: Understanding Wind Development in the Rural Midwestern United States*, 56 ENERGY POLICY 322, 327–28 (2013).

47. *See, e.g.*, Eisenberg, *supra* note 3, at 129.

impacts of energy policy. In turn, many are arguing that local communities should be given a more significant role over how energy policies are made. Some are arguing that incentives and compensation should be provided to communities most impacted by energy policies made at the state or federal levels.[48] Others are asserting that local residents should be given more say over the siting of energy facilities and their operations.[49] Indeed, an increasing number of scholars are even asserting that local governments be allowed to veto policy decisions made at higher levels.[50]

At the most basic level, energy localism appears to be an effort to account for the influence that local communities have long exerted on the energy sector. Since the early twentieth century, energy policy has largely been set at the state and federal level, and through administrative agencies not directly beholden to local constituents. But local opposition—largely through the exercise of land use powers through local governments—has long played a significant role in shaping energy development. The growth of nuclear power in United States was derailed in the 1970s by waves of local resistance, many of which deployed local zoning and environmental regulations to stall the development of facilities sanctioned by federal regulators.[51] Local communities used a similar set of legal restrictions to oppose hydraulic fracturing for natural gas four decades later, which prompted many states to pass legislation to preempt these restrictions on behalf of the gas industry.[52] And proposed developments of large-scale wind and solar farms are also now facing local resistance that have made the shift to renewable energy more difficult.[53]

At a deeper level, however, energy localism is an effort to rethink how energy policies are made. In contrast to the traditional view of localism in the energy context as a site for resistance founded

---

48. *See* Spence, *supra* note 2, at 393–94; *see also generally*, Vicki Been, *Compensated Siting Proposals: Is it Time to Pay Attention?,* 21 FORDHAM URB. L.J. 787 (1994).

49. *See, e.g.*, J.B. Ruhl, *General Design Principles for Resilience and Adaptive Capacity in Legal Systems—with Applications to Climate Change Adaptation*, 89 N.C. L. REV. 1373, 1397 (2011).

50. *See, e.g.*, Spence, *supra* note 2.

51. *See* FRANK R BAUMGARTNER & BRYAN D JONES, AGENDAS AND INSTABILITY IN AMERICAN POLITICS 59–82 (2010).

52. *See, e.g.*, Stephen Elkind, *Preemption and Home-Rule: The Power of Local Governments to Ban or Burden Hydraulic Fracturing*, 11 TEX. J. OIL GAS & ENERGY L. 415 (2016).

53. *See* Dan van der Horst, *NIMBY or Not? Exploring the Relevance of Location and the Politics of Voiced Opinions in Renewable Energy Siting Controversies*, 35 ENERGY POLICY 2705–14 (2007).

on "not-in-my-backyard" kind of thinking, proponents of energy localism are exploring how local participation might enhance energy policymaking.[54]

For some, the benefits of localism lie in the kind of information that can be provided to state and federal policymakers.[55] Local complaints are often signals of more serious problems. Local data collection often provides preliminary evidence of potential violations. Both of these supplement the monitoring efforts of administrative agencies.[56] Moreover, local feedback may provide policymakers with a more accurate picture of the stakes involved in a particular decision.[57] As many scholars have noted, proposed energy projects often "impose significant, uncompensated burdens on communities."[58] Decisions to shift from one energy source to another also threaten the livelihood of certain communities even while they enhance the prospects of another. Allowing for more local input into how energy policies are made then might also lead to better and more informed decisions on the policies themselves.

For others, the promise of energy localism lies in how local regulators might supplement similar efforts at the state and federal level. Rather than displacing local regulations then, the goal might be to expand regulatory powers at the local level and enhance the coordination of local, state, and federal officials.[59] After all, unlike the specialized agencies ordinarily responsible for implementing energy regulations, local governments are general-purpose governments that ordinarily account for a wide-range of interests in rendering their decisions. As such, when local governments exercise their land use and zoning powers over a proposed energy development, they are often doing so on the basis of interests and concerns that may not normally be taken into account by agency officials focused on energy specifically.[60] In addition, local governments necessarily provide many of the supplemental services that energy producers require—from energy services and roads that support their operations, to the schools and social services that support their employees. These burdens not only fall

---

54. *See*, *e.g.*, Spence, *supra* note 2.

55. *See* Holly Klick & Eric R. A. N. Smith, *Public Understanding of and Support for Wind Power in the United States*, 35 RENEWABLE ENERGY 1585, 1585 (2010).

56. *See* Hannah J. Wiseman, *Disaggregating Preemption in Energy Law*, 40 HARV. ENVTL. L. REV. 293, 338 (2016).

57. *See* Garrick B. Pursley & Hannah J. Wiseman, *Local Energy*, 60 EMORY L.J. 877, 943–44 (2011).

58. *See* Nolon, *supra* note 1, at 331.

59. *See generally*, Hari M. Osofsky & Hannah J. Wiseman, *Hybrid Energy Governance*, 2014 U. ILL. L. REV. 1 (2014).

60. *See* Nolon, *supra* note 1, at 336.

disproportionately on local communities, but it is only through local regulations that these "secondary impacts" can be managed.[61]

In addition to the information and regulatory benefits, another advantage is that energy localism might fulfill an important civic function.[62] It cannot be denied that energy is part of the fierce partisan battles that have divided this country and stymied policy developments at the state and federal levels. Part of the reason for this is that because energy plays into the urban-rural divide that now defines partisan politics.[63] Another is that many parts of the country feel disconnected from the policymakers responsible for how energy policies are made. Energy localism might then be a way to work through the political stalemates that have arisen. It might do so by decentralizing energy policymaking so that affected residents feel they have more agency in the process.

In short, there are a number of different reasons for the growing interest in energy localism. What ties them together, however, is the promise of participatory democracy as an alternative to agency decision-making in energy law. In other words, energy scholars are turning to local governments because they are the government closest to the people.[64] And this proximity is important because of the belief that local residents are better able to channel their interests and concerns through local officials than those at the state or federal level.[65] The promise of energy localism then lies in the democratic potential of local governments. But what often goes unexplored is whether the local government institutions that currently exist, especially in the rural areas most directly affected by energy developments, actually fulfill these democratic aims. It is to this we now turn.

III. THE LIMITS OF ENERGY LOCALISM

Proponents of energy localism are increasingly looking toward local governments as a means of decentralizing how energy policies are made. But while much of the focus has been on how energy law might be reformed to accommodate the participation of local

---

61. Robert H. Freilich & Neil M. Popowitz, *Oil and Gas Fracking: State and Federal Regulation Does Not Preempt Needed Local Government Regulation*, 44 URB. L. 533, 542 (2012) ("only local regulation . . . can deal with the secondary impacts of fracking upon the communities' roads, schools, fire, police, and emergency response systems, as well as preserving offsite environmentally sensitive lands.").

62. *See* S. A. Malin K. T. & DeMaster, *A Devil's Bargain: Rural Environmental Injustices and Hydraulic Fracturing on Pennsylvania's Farms,* 47 J. OF RURAL STUD. 278–290 (2016).

63. *See* Rick Su, *Intrastate Federalism*, 19 U. PA. J. CONST. L. 191, 201 (2016).

64. *See, e.g.*, Pursley & Wiseman, *supra* note 54, at 938.

65. *See id.*

governments, little attention has been paid to the legal and organizational structure of the local governments themselves. This Part argues that the prospects for energy localism depend on the democratic capacity of local governments. It suggests, however, that this democratic capacity is limited in significant ways, especially when it comes to the issue of energy.

More specifically, this Part makes three claims. First, decentralization in the energy context depends on the democratic capacity of not only local governments in general, but also the types of local governments that tend to govern in rural areas. Second, the democratic capacity of rural local governments is hampered by legal and structural limitations that limit their role as democratic forums, either in representing the views of their residents or channeling their interests into tangible policies. Third, these limitations are compounded by the type of issues that arise in the context of energy, and the imbalance between rural local governments and the energy industry.

All of this suggests that the prospect of energy localism lies in both energy law and local government law. Indeed, local government reforms may be just as important as decentralizing energy policymaking.

A. Democratic Representation

One of the central goal of energy decentralization is to allow for more local democratic participation in how energy policies are made. And the reason why proponents of energy localism are increasingly looking to local governments is because of the assumption that local governments are quintessential forums for participatory democracy.[66] To be sure, the interests and views of local residents are likely to be represented better by local officials than agency administrators at the state or federal level. Yet it is important to recognize that meaningful representation at the local level is far from guaranteed. This is especially true with respect to energy-related disputes and the type of rural local governments that are frequently involved.

One reason why representation is a concern is relates to the democratic capacity of local governments in rural areas.[67] Most discussions of local governments focus on cities.[68] But in rural areas, the local governments involved are usually counties and towns. And despite the nostalgic image of New England Town Hall Meetings

66. *See*, *e.g.*, *supra* note 63–64 and accompanying text.

67. *See* Su, *supra* note 5, at 847–51.

68. *See id.* at 840.

and their association with American democracy, the kind of political representation offered by counties and towns is often limited.[69] The practice of Town Hall meetings never spread beyond New England states.[70] In vast parts of the country, the lowest level of local governments in rural areas are counties, which govern large geographic areas that often contain many distinct communities.[71] As a result, political power tends to be concentrated in the county seat and among the rural elite.[72] Moreover, counties and towns tend to be legally organized as administrative units of the state government.[73] After elections are held, the role of local leaders tends to be focused on the implementation of state and federal policies in the manner prescribed by state and federal law.[74] Historically and today, rural local governments generally do not play a major role in policymaking or as a forum for resolving controversial issues.

This may be why perceptions of energy issues often reveal vast disconnects between local leaders and their residents. For example, in a study of hazardous waste facilities in Sumter County in Alabama, researchers found that local residents were far more concerned about health and environmental effects than local officials.[75] Moreover, this disconnect was not the result of different levels of information about the facilities. Rather, the researchers found that local officials and their residents viewed the issue through different frames.[76] Given the administrative orientation of rural local governments, local officials viewed the facilities, and other development decisions within the community, largely through the lens of budgeting and revenue-raising.[77] Residents, however, were far more likely to assess the facilities from the perspective of their communities as a whole.[78] Thus, although fiscal considerations were important, they were also more attuned to the societal and environmental costs as well. As a result, the

---

69. *See id.* at 857–58.

70. *Id.* at 856.

71. *Id.* at 855.

72. *See id.* at 856.

73. *See id.* at 857–58.

74. *See id.* at 858.

75. Conner Bailey et al., *Hazardous Wastes and Differing Perceptions of Risk in Sumter County, Alabama*, 5 SOC'Y & NAT. RESOURCES 21, 29 (1992).

76. *See id.* at 22.

77. *See id.* at 32–33.

78. *See id.* at 30.

researchers concluded that the views and actions of local officials may not always reflect the interests of residents and their community.[79]

If the legal and political structure of rural local governments raises concerns about their representation of local residents, another concern is the degree to which they are able to give voice to *all* residents, including the poor, racial minorities, and those who have historically been marginalized in local politics. From this perspective, the fact that local residents vote for their local officials is not enough to ensure participatory democracy. Also important is how local democratic practices foster the kind of cross-cutting negotiations that can bring to the forefront the uneven impacts of energy policies on the residents of a particular local community.

To see why this is important requires us to recognize that energy development does not simply exert uneven and localized impacts between communities. Their costs and benefits can also be unevenly apportioned within communities, and frequently in a manner that correlates with existing social and geographic divides. Those who are employed by an energy producer, for example, are not necessarily the same residents as those who bear the environmental or health effects of its operations. The broader community that benefits from the tax revenue that an energy operation generates may not share the same concerns as the neighborhoods immediately bordering such an operation. And too often, these divisions are drawn along existing racial and class lines.

Take, for example, the community of Diamond, Louisiana. Diamond is located in the state's chemical corridor and is nestled between the Mississippi River and two oil refineries.[80] It is also a predominantly African-American community, separated by railroad tracks from the white neighbors who live on the other side.[81] For decades, the residents of Diamond had endured emissions from the refineries and elevated rates of cancer and other ailments.[82] They have also borne the cost of industrial accidents, including an explosion resulting from a chemical discharge that leveled a home and killed two residents.[83]

Given these localized impacts, it would appear that Diamond would be a prime candidate for expanding local control over energy developments. But Diamond does not have a local government. Rather, it is an unincorporated area in Plaquemines Parish, a

79. *See id.* at 23.

80. LERNER, *supra* note 37, at 9.

81. *Id.* at 26, 141.

82. *Id.* at 45–56.

83. *Id.* at 29–30.

county-equivalent local government in Louisiana.[84] And within the parish as a whole, feelings about the refineries are split along racial and—because of the long legacy of segregation—geographic lines.[85] The refineries employ mostly white residents, most of whom live far enough away to avoid its most significant impacts and, in fact, know little about them.[86] At the same time, very few of the black residents of Diamond who suffer the environmental harms of the refineries have been able to secure employment there.[87] Thus, when residents of Diamond mobilized to compel the refinery to buy-out their homes so that they could relocate elsewhere, their efforts were widely criticized by the white residents of Plaquemines Parish.[88]

None of this is to suggest that local input and participation is not important. If Plaquemines Parish was callous to the concerns of Diamond, there was no evidence that the state or federal governments were more attentive.[89] But it does suggest that the goal of expanding local autonomy requires more than simply empowering local governments to play a bigger role in regulating energy. It might also mean ensuring that minority voices are heard in the local democratic process, and local forums are available for negotiating the kind of uneven impacts that energy developments can have within a given community.

B. Local Authority

If one concern with energy localism is the ability of rural local governments to serve as effective representatives of the people that they serve, another is their ability to channel residents' concerns into tangible policies. In other words, do counties and towns have the power or authority to regulate energy operations within their jurisdiction and the effect of those operations on the lives of their residents? The concern here is not simply the preemption statutes that explicitly prohibit local governments from regulating a specific energy industry, which energy scholars have begun to raise concerns about. It is also whether local governments

---

84. Diamond a neighborhood in the "town" of Norco. *See id.* at 141, 146. But the town of Norco is also not an incorporated locality, and thus has no local government. Rather it is simply a "census designated place" within St. Charles Parish. *See* https://en.wikipedia.org/wiki/Norco, Louisiana. The lowest level of government here is St. Charles Parish.

85. *See id.* at 141.

86. *See id.* at 61, 95.

87. *See id.* at 12, 61.

88. *See id.* at 194–95.

89. *See id.* at 258.

in general, and rural local governments more specifically, have the baseline authority to address energy issues even in the absence of an express preemption statute.

At this point, it is important to acknowledge the limited authority of local governments, and of rural counties and towns in particular. After all, under American law, local governments are mere creatures of the state.[90] What this means is that they possess only those powers that are specifically delegated to them by the state.[91] And in addition, the state ordinarily has substantial power to revoke powers that have been granted or preempt local policies through state legislation.[92] And although this basic framework applies to all local governments, rural local governments like counties and towns tend to be especially disadvantaged.[93] As noted earlier, counties and towns were historically created as administrative subdivisions of the state.[94] As a result, the powers delegated to them tend to correspond with the implementation of state laws and programs, rather than the development of local policies.[95] Moreover, while the home rule movement expanded local authority in many states, home rule authority often excludes rural local governments or is extended in a more limited manner.[96]

The baseline limitations of rural local government authority are further compounded in the energy context. In most states, energy law is a field that is considered wholly occupied by the state, leaving no room for local regulations.[97] Similarly, few states grant localities, much less towns and counties, explicit authority to regulate energy, which is especially significant because local governments can only act when power has been explicitly delegated.[98] Even in those states where broad home rule authority has been extended to rural local governments like counties and towns, that home rule authority tends to be limited to matters of municipal, rather than statewide,

---

90. *See*, *e.g.*, Hunter v. City of Pittsburgh, 207 U.S. 161, 178 (1907).

91. *See*, *e.g.*, H.G. Brown Family Ltd. v. City of Villa Rica, 607 S.E.2d 883, 885 (Ga. 2005) ("A municipality has no inherent power; it may only exercise power to the extent it has been delegated authority by the state. A municipality's allocations of power from the state must be strictly construed.").

92. *See* Richard Briffault, *Our Localism: Part I—The Structure of Local Government Law*, 90 COLUM. L. REV. 1, 1 (1990); Richard Briffault, *The Challenge of the New Preemption*, 70 STAN. L. REV. 1995, 2004–05 (2018).

93. *See* Su, *supra* note 5, at 870–71.

94. *See supra* note 72.

95. *See supra* note 73.

96. Su, *supra* note 5, at 863–65.

97. *See*, *e.g.*, Wiseman, *supra* note 1, at 324–25.

98. *See*, *e.g.*, John F. Dillon, Treatise on the Law of Municipal Corporations §§ 17, 89.

affairs.[99] The line between municipal and statewide affairs has long been notoriously difficult to draw.[100] But the fact that energy has so long been considered to be a matter of state and national concern leans against a finding that it is within traditional home rule authority as a local affair rather than a state-wide concern.[101] All of these limitations are further exacerbated by the fact that many states explicitly preempt local regulations with respect to specific energy policy.[102]

There is, of course, one exception to general lack of local authority: the local power to indirectly regulate energy through land use controls like zoning.[103] Indeed, because zoning has long been construed as a quintessential local power, most accounts of energy localism are focused on the use of this power at the local level.[104] And local communities have long turned to land use controls to address broader energy issues, from nuclear power and unconventional gas drilling, to ethanol, wind, and solar. As a result, proponents of energy localism have likewise focused on the zoning power as well.[105]

But local reliance on zoning also reveals the limits of energy localism. More specifically, it highlights the dearth of legal tools that local governments possess when it comes to the regulation of energy more generally. If local governments turn to zoning, it is because they have little authority to regulate energy production directly. If concerns about the environmental or economic impacts need to be reframed through the lens of land use in the energy context, it is because land use concerns are commonly presumed to be one of the few concerns that should be subject to local considerations. The fact that zoning looms so large in energy law is testament to how little existing law is entrusted to the local democratic process.

It also doesn't help that the zoning power distorts the involvement of local residents in energy law and policy. Zoning is reactive, not proactive. It grants local residents a means to oppose energy operations that have been proposed, but limited means to

---

99. *See, e.g.*, Gerald E. Frug, *The City as a Legal Concept*, 93 HARVARD LAW REVIEW 1057, 1117 (1980).

100. *See, e.g.*, Daniel B. Rodriguez, *Localism and Lawmaking*, 32 RUTGERS L.J. 627, 632, 639 (2001).

101. *See, e.g.*, Sarah Fox, *Home Rule in an Era of Local Environmental Innovation*, 44 ECOLOGY L.Q. 575, 596–97 (2017–2018).

102. *See, e.g.*, Keith B. Hall, *When Do State Oil and Gas or Mining Statutes Preempt Local Regulation*, 27 NAT. RESOURCES & ENV'T 13, 13 (2012–2013); Hannah J. Wiseman, *Disaggregating Preemption in Energy Law*, 40 HARV. ENVTL. L. REV. 293, 303–04 (2016).

103. *See* Spence, *supra* note 2, at 372.

104. *See, e.g.*, Nolon, *supra* note 1, at 335; Spence, *supra* note 2, at 387; Wiseman, *supra* note 1, at 303.

105. *See* Wiseman, *supra* note 1, at 325.

guide or incentivize energy development more generally. As a regulation of energy, it is also indirect and binary. It allows local communities to dictate whether a specific energy facility is allowed, but not necessarily how that energy facility might operate or what actions needs to be taken once operations ceases. Indeed, efforts by localities to use the zoning power to regulate how energy facilities operate have routinely been rejected by courts as outside of the scope of that power.[106] Moreover, the traditional reliance on zoning contributes to the perception that local involvement in energy regulations will largely result in widespread obstruction based on "not-in-my-backyard" sentiments. As noted earlier, local perceptions about energy are often nuanced and complicated.[107] But when expressed solely through the framework of zoning, the kind of balanced regulations that residents might tailor for their communities may not be possible.

Thus far, we have looked at the legal limits of local power when it comes to energy. But perception matters as well. In many cases, the exercise of local authority is not only limited by the formal powers that have been delegated, but by how local officials understand their role in setting policy. Studies have shown that local officials routinely believe they have less authority than they do,[108] whether because of a genuine misunderstanding of the law or perhaps as a strategic posture to deflect responsibility for taking action. Local officials are also extraordinarily cautious, wary of prompting preemptive action by the state legislature or incurring litigation costs in defense of their authority.[109] There is also the fact that unlike cities, rural, local governments often lack the resources, staff, or experience in dealing with complex policy issues.[110] Taken together, local officials often undertake less regulatory activity than they might be able to. Given the added uncertainty when it comes to energy, and the political influence and litigiousness of the energy industry, it makes sense that many local officials tend to refrain from regulating in this area even if a plausible case can be made regarding their authority to do so. In turn, local residents assume that no actions can be taken, further entrenching the perception that they are powerless.

---

106. *See, e.g.*, State ex rel. Morrison v. Beck Energy Corp., 143 Ohio St.3d 271, 277–78 (2015).

107. *See infra* Part I.B.

108. *See, e.g.*, DAVID J BARRON ET AL., DISPELLING THE MYTH OF HOME RULE 11 (2004).

109. *See, e.g.*, Rick Su, *Have Cities Abandoned Home Rule*, 44 FORDHAM URB. L.J. 181, 201 (2017).

110. *See* Colter Ellis et al., *Unconventional Risks: The Experience of Acute Energy Development in the Eagle Ford Shale*, 20 ENERGY RESEARCH & SOCIAL SCIENCE 91, 92 (2016).

In short, for energy localism to succeed, rural local governments must be granted clear authority to regulate energy in a way that can adequately reconcile the competing and nuanced interests of their residents. Moreover, local officials and local residents need to feel that they are empowered and entitled to act, and develop experience in doing so. Both of these are currently lacking in the context of rural local governments. As a result, these are also considerations that must be factored into the movement for energy localism.

C. External Relations

We have looked at the representative capacity of rural local governments. We have also considered their baseline legal authority and the limitations that rural local governments face in translating the will of local residents into tangible and effective policies. The third issue with the role of local governments in energy localism is how rural local governments deal with external parties.

On the one hand, rural local governments are often at a disadvantage when it comes to their dealings with the energy industry. Energy companies have long played an outsized role in energy policymaking, given their economic resources, clout, and political influence.[111] This outsized role is only magnified in rural communities, where energy companies are tied to their economic, cultural, and governmental identities. All of this affects the ability of rural local governments to act as an effective regulator of the energy industry, or a faithful representative of their resident's interests.

One reason for the influence of energy companies on local politics is economic dependence. Because energy companies often play an outsized role in the economic well-being of communities, it is those companies interests that end up being represented the most in local politics.[112] In some communities, a particular energy sector may be the largest employer such that most residents believe that the success of that community is tied to the success of that company.[113] That dependency may even have long historic roots, given that many communities tied to the energy sector began as company towns that were developed and settled at the direction of the

111. *See*, *e.g.*, Charles Davis, *The Politics of "Fracking": Regulating Natural Gas Drilling Practices in Colorado and Texas*, 29 REVIEW OF POLICY RESEARCH 177, 178 (2012).

112. *See*, *e.g.*, Shannon Elizabeth Bell, *"There Ain't No Bond in Town Like There Used to Be": The Destruction of Social Capital in the West Virginia Coalfields1*, 24 SOCIOLOGICAL FORUM 631, 633–34 (2009).

113. *See*, *e.g.*, annon Elizabeth Bell & Richard York, *Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia: Community Economic Identity*, 75 RURAL SOCIOLOGY 115 (2010).

company itself.[114] As a result, local officials commonly see their role as one that is primarily aligned with the interest of the energy companies that support their community.[115] And local residents often feel disempowered in their dealings with the energy sector.[116]

Even when economic dependence fades, energy companies have developed strategies for maintaining their influence and control of local politics. One way they have done so is by fostering local identities aligned with the energy industry. This is precisely what Bell and York observed in their study of coal mining in West Virginia.[117] The economic significance of coal mining had been in decline for decades, accounting for only about 7 percent of the state's gross domestic product in 2004.[118] But when environmental concerns about coal mining began to arise, the coal industry began an intensive push to increase local identification with the coal industry through "grassroots" organizations, local sponsorships, and appropriation of cultural icons.[119] And the effort largely succeeded, generating local support that was much less concerned with economic dependency than the perception that the coal industry was connected to local identities. As a result, Bell and York concluded that "it is far from uncommon for communities to identify with industries that do not do much to support local and regional economies."[120] And the reason for this, they explained, was because "owners and managers of extractive industries actively construct, maintain, and amplify community economic identity in order to ensure that certain ideologies dominate in communities that historically depended on natural-resource extraction, thereby averting a legitimation crisis."[121]

On the other hand, rural local governments face challenges in their dealings with other local governments. We have seen how energy operations can affect different parts of a community different ways. Equally important is how energy developments can also exert externalities on neighboring communities that may not be fully accounted for by a single local government. In other words,

---

114. *See, e.g.*, *generally*, CRANDALL A. SHIFFLETT, COAL TOWNS: LIFE, WORK, AND CULTURE IN COMPANY TOWNS OF SOUTHERN APPALACHIA, 1880–1960 (1991).

115. *See, e.g.*, BRIAN K. OBACH, LABOR AND THE ENVIRONMENTAL MOVEMENT: THE QUEST FOR COMMON GROUND 10 (2004).

116. *See* Malin & DeMaster, *supra* note 63, at 283–84.

117. *See* Bell & York, *supra* note 115.

118. *Id.* at 121.

119. *Id.* at 129–38.

120. *Id.* at 118.

121. *Id.* at 117.

proponents of energy localism must also be attentive to the regional impacts of energy policies and consider the local capacity for regional coordination and cooperation.[122]

Inter-local cooperation has long been a concern in the local government literature.[123] The problem, simply stated, is that there are too few instances of negotiations and coordination between localities. Sometimes this is because of outright competition between communities—for residents, for businesses, for tax revenue.[124] Other times, the issue arises because of the lack of institutional forums or frameworks in which inter-local negotiations can take place.[125] As a result, local government scholars have long advocated reforms to existing local government structures to promote a more regional outlook—one in which localities recognize their interests in the success of the entire region, and where local governments are organized so that regional cooperation can more readily occur.[126]

Thus far, however, the regionalism movement has largely focused on metropolitan regions, and city-suburb relations more specifically.[127] But might it also be important in the rural context and with respect to energy? Many impacts of energy development are concentrated within a local jurisdiction, if not specific neighborhoods within them. But others have extra-territorial effects. Fracking operations may increase traffic not only in a specific county, but also those that surround them. Refineries may pollute waterways with tremendous downstream effects. An ethanol plant might provide economic opportunities to farmers in many counties, even if the tax benefits are concentrated in one. Might decisions about these projects benefit from regional cooperation and coordination? Races-to-the-bottom might be reduced. Broader perspectives might be introduced without sacrificing all local input to state or federal policymakers.

The problem, however, is that even more so than metropolitan communities, rural local governments lack the resources and institutional support for regionalism. Largely organized as service-

---

122. *See* Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 483 (2011).

123. *See, e.g.*, Juliet F. Gainsborough, *Bridging the City-Suburb Divide: States and the Politics of Regional Cooperation*, 23 JOURNAL OF URBAN AFFAIRS 497, 497–98 (2001).

124. *See, e.g.*, *id.* at 498; Sheryll D Cashin, *Localism, Self-Interest, and the Tyranny of the Favored Quarter: Addressing the Barriers to New Regionalism*, 88 GEO. L.J. 1985, 1993 (1999).

125. *See, e.g.*, Richard Briffault, *Localism and Regionalism*, 48 BUFF. L. REV. 1, 4–5 (2000).

126. *See, e.g.*, Laurie Reynolds, *Intergovernmental Cooperation, Metropolitan Equity, and the New Regionalism*, 78 WASH. L. REV. 93 (2003).

127. *See* Su, *supra* note 5, at 840.

delivering subdivisions, counties and towns often lack the resources or capacity to engage in collaborative efforts. This is what researchers discovered in their interview of local leaders dealing with the boom in unconventional gas extraction able the Eagle Rock Shale in southern Texas.[128] Lacking an effective inter-local framework for cooperation, the counties involved had difficulties finding a way to coordinate a regional response.[129] A regional working group was eventually organized,[130] but ironically, that working group was put together, and in many ways managed, by the energy industry themselves.[131] The local officials were grateful for the resources and organizing capacity that the energy sector was able to provide to their coordinating efforts.[132] But it is interesting to note that the lack of an inter-local framework for regulating energy ultimately reinforced the dependence of rural local governments on the energy sector.[133]

IV. STRENGTHENING ENERGY LOCALISM

Energy localism promises to expand the role of participatory democracy in energy policymaking. One challenge that it faces, however, is democratic capacity of rural local governments. I have suggested that rural counties and towns, as they are currently constituted, often do not effectively represent their residents, lack the power to act on their behalf, and are beholden to industry interests. For energy localism to succeed then, it is not enough to simply decentralize how energy policies are made. Steps must also be taken to overcome the limitations that hobble local governments in general, and rural local governments in particular.

First, efforts to expand energy localism should be structured to ensure that local residents are adequately represented—and not just the interests and concerns of a local majority, but also those of minority groups that may be uniquely affected. To that end, it is not enough that energy policymaking welcomes the participation of local officials. It is also important to ensure that local officials are actually representing the interests of their communities. This might mean that decentralization efforts carefully consider which local institutions are selected to participate, be it counties, towns, or other local government units. Or perhaps procedural requirements

---

128. *See* Ellis et al., *supra* note 112, at 92.

129. *See id*. at 96.

130. *See id.*

131. *Id.*

132. *See id.*

133. *See id.*

might be imposed, like requirements that counties hold hearings in the community where an energy development operates or is proposed. Indeed, it might even be necessary in some cases to reconsider the size and representative structure of rural local governments themselves. This might seem daunting. It certainly expands energy localism beyond the already difficult task of reforming energy law. But as this essay has argued, energy scholars cannot assume that transferring power and influence over energy policies to local governments will necessarily produce the kind of decentralization that energy localism promises. Moreover, the promise of expanded power or influence over energy might itself serve as a powerful incentive to encourage states and local governments to reform their democratic processes and ensure the representation of affected residents. In this regard, energy localism might be the catalyst for localism more generally.

Second, energy localism should also be attentive to the authority of local governments, especially those in rural areas. In other words, it is not enough to simply remove the state and federal preemption laws that prevent local governments from regulating energy generally or in a specific area. It is also important to consider whether, absent those explicit statutory prohibitions, local governments have the baseline authority to address energy-related issues. In some states, this might involve urging courts to interpret the local authority that has already been delegated to include local efforts to address energy developments and operations. In other states, state legislatures might be encouraged to delegated authority explicitly over a particular energy issue or a specific industry. Moreover, consideration should be given to exercises of local authority beyond traditional land use controls. To be sure, land use powers provide vetoes, and vetoes are important tools in managing the costs and benefits of proposed energy developments. But vetoes are also blunt tools, and do not provide as much flexibility as direct regulatory authority. If the goal is to empower local communities to address the varied and competing local interests with respect to energy, then it may also be necessary to grant them the regulatory tools to develop tailored and innovative solutions.

Last, steps will need to be taken to balance the influence of the energy industry on local politics. Efforts to enhance the representative capacity and baseline authority of rural local governments are likely to help here as well. Both would enhance the voice of marginal residents and grant them leverage in negotiations over concerns. Further reforms, however, may also be necessary. For example, other regulatory bodies, like administrative agencies

or energy commissions, may need to actively support local residents from above, offering a potential counterweight to private companies that operate on a regional scale. The problem with this, of course, is that these regulatory bodies themselves are often vulnerable to industry capture. Another possibility is to expand the role of the public energy sector. Like the expansion of public utilities at the turn of the twentieth century, perhaps local governments should be given more power to play a role in the energy sector with respect to production and distribution. This would grant local residents an alternative means, other than regulation, to determine the extent and manner in which energy projects are operated. It might also alter the balance of local interests by ensuring that the benefits of energy facilities are directly captured by the local communities that bear the burden.

V. CONCLUSION

The rise of energy localism is challenging the traditional view of energy law as a specialized field based on centralized policymakers, administrative rule-making, and an exclusive focus on the national interest. But the growing interest in the involvement by local governments must be tempered with the realities of local governance on the ground. If local governments are to play a meaningful role in the decentralization of energy law, then efforts must also be made to expand their democratic capacity and baseline authority. This is especially true with respect to the rural local governments that are so often at the center of energy disputes.

VISIBILITY AND INDIVISIBILITY IN RESOURCE ARRANGEMENTS

LEE ANNE FENNELL*

Projects like highways, bridges, pipelines, and wildlife corridors exhibit indivisibilities—we need the whole thing to have anything of value. Many environmental and social goals have a similar all-or-nothing character: staying above or below a certain critical threshold can make all the difference. This Essay focuses on the role of visibility in addressing resource dilemmas that have this structure. I examine how two kinds of visibility can help avoid catastrophic consequences and advance desirable ones. The first involves recognizing when an indivisibility is present—that is, appreciating the vulnerability of resources to thresholds and cliff effects before it is too late. The second involves seeing how individual decisions about resources stack together to generate outcomes. When a resource problem suffers from poor visibility along these dimensions, finding ways to clear the view can improve the prospects for cooperative solutions.

I. INTRODUCTION 298
II. UNDERSTANDING INDIVISIBILITY 300
  A. *What Indivisibility Means* 301
  B. *Beyond the Tragedy of the Commons* 304
III. STRUCTURE AND STRATEGY 308
  A. *Anatomy of a Collective Action Problem* 308
    1. Production Functions 308
    2. Participation Requirements 310
    3. Payoffs 311
  B. *A Lumpy Public Goods Game* 312
  C. *The Importance of Being Essential* 314
IV. ENHANCING VISIBILITY 319
  A. *Concretization* 320
  B. *Feedback* 323
  C. *Focal Points* 325
  D. *Social Norms and Self Interest* 329
  E. *Putting it All Together* 331

---

* Max Pam Professor of Law, University of Chicago Law School. I (virtually) presented a version of this essay as the Fall 2020 Distinguished Lecture at Florida State University College of Law as part of its Program on Environmental, Energy, and Land Use Law, and I am grateful to the participants in that event for their helpful comments and questions. For additional thoughtful suggestions and conversations, I thank Hanoch Dagan, Avihay Dorfman, Hajin Kim, Jonathan Masur, Richard McAdams, Arden Rowell, Erin Ryan, and participants in Tel Aviv University's Private Law Theory Workshop. Research support from the Harold J. Green Faculty Fund and the SNR Denton Fund is also gratefully acknowledged.

V. CONCLUSION.. 332

I. INTRODUCTION

What we can see changes what we can do. The intuition is simple, but its implications are profound. Nowhere is this more true than in environmental, land use, and natural resource contexts, where collective action problems abound but their shapes—and those of their solutions—often remain obscure. This essay emphasizes the role of *visibility* in taking on these challenges.[1] By visibility, I mean two distinct things: perceiving the structure of a given resource dilemma, and seeing how dispersed individual choices influence it.[2]

Seeing a resource dilemma's structure means more than recognizing the existence of a problem worth addressing—often a challenge in its own right.[3] It also means apprehending whether the problem has an all-or-nothing character, exhibits cliff or threshold effects, or involves increasing or decreasing returns to scale. Features like these are associated with *indivisibilities*—instances in which a given good is very costly to divide or is much less valuable when divided than when kept whole.[4] Highways, bridges, pipelines,

---

1. The significance of visibility in environmental and other collective action contexts has long been recognized. *See, e.g.*, Robert C. Cass & Julian J. Edney, *The Commons Dilemma: A Simulation Testing the Effects of Resource Visibility and Territorial Division*, 6 HUM. ECOL. 371 (1978); Bonnie J. McCay, *Everyone's Concern; No One's Responsibility: A Review of Discourse on the Commons*, conference draft, Annual Meeting of the Society for Applied Anthropology, 10–11 (1984); Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENV'T. L. 241, 242–43, 265 (2000); Monika Ehrman, *Application of Natural Resources Property Theory to Hidden Resources*, 14 INT'L. J. COMMONS 627 (2020).

2. These two kinds of visibility track distinctions about information conditions in the game theory literature. *See* DOUGLAS G. BAIRD, ROBERT H. GERTNER & RANDAL C. PICKER, GAME THEORY AND THE LAW 9–10 (1994). Whether a game's structure—its payoffs and available strategies—are known to the players determines whether the game is one of complete or incomplete information. *Id.* at 10. Whether the strategies or "moves" actually selected by the other players are observable determines whether the game is one of perfect or imperfect information. *Id.* If both structures and choices are known to the parties, the game is one of complete and perfect information. *Id.* The notion of visibility pursued in this paper focuses on how the information environment for a strategic interaction might be improved along these two dimensions.

3. *See, e.g.,* Thompson, *supra* note 1, at 258–59 (noting that fisheries, groundwater, and climate change "[a]ll involve hidden resources," which can lead people to ignore or downplay problems); Kate Pride Brown, *Water, Water Everywhere (Or Seeing Is Believing): The Visibility of Water Supply and the Public Will for Conservation*, 12 NATURE & CULTURE 219, 224–25, 235 (2017) (discussing problems of groundwater invisibility); *see generally* ARDEN ROWELL & KENWORTHEY BILZ, THE PSYCHOLOGY OF ENVIRONMENTAL LAW (2021) (discussing factors that make environmental harms difficult to see, understand, and care about).

4. *See* H. Peyton Young, *Dividing the Indivisible*, 38 AM. BEHAV. SCI. 904, 904, 906 (1995) (observing that the notion of indivisibility does not generally refer to the literal impossibility of division, but rather to the cost or loss of value associated with splitting something up).

and wildlife corridors have an indivisible character—one needs the entire thing in order to have much of value. Similar indivisibilities lurk in environmental goods (or bads)[5] that depend on aggregations or accumulations—the minimum viable population required to sustain a species, for example, or the critical threshold that a pollutant concentration cannot exceed without devastating effects. In other words, there is often a "lumpy" rather than smoothly linear relationship between inputs and outcomes.[6] Recognizing the shape of the problem is essential to solving it.

Seeing the impact of individual choices on a resource dilemma requires another type of visibility—apprehending how innumerable small, dispersed, interacting decisions stack together to produce real-world impacts. In some contexts, the way that individual decisions aggregate is easy to track and view. For example, if a particular string of land parcels is necessary to create a wildlife corridor, each of the owners along that path holds an essential element. But in many environmental contexts, the effects of human choices are diffuse, mobile, and sometimes literally invisible. The inability to get real-time feedback about choices and their effects can thwart attempts at coordination. Nonetheless, we can consciously construct focal points and ways of visualizing cumulative impacts, even when these are not naturally part of the observable landscape.[7]

This Essay proceeds in three stages. Part II discusses how indivisibility changes the nature of a collective action problem and upends the predictions that might follow from a tragedy of the commons template. Part III examines the structure of resource dilemmas that feature indivisibility. Understanding this structure, and recognizing how it influences the strategies of the players, is an important first step in addressing resource dilemmas that involve thresholds, cliff effects, or lumpy all-or-nothing outcomes. Part IV turns to the role of visibility in compiling the cooperation necessary to resolve indivisible problems.

The analytic building blocks that I use in this piece are familiar to those working on collective action problems using economics and game theory. What I hope to do here is show how these ideas apply to environmental and natural resource contexts, where indivisibilities typically loom large and visibility is often low. The indivisibilities in these contexts can threaten great harm, such as

---

5. *See, e.g.,* RUSSELL HARDIN, COLLECTIVE ACTION 61–62 (1982) (defining "collective bads"). Collective action problems in environmental contexts often involve the avoidance of "bads" as well as the provision of "goods."

6. *See* LEE ANNE FENNELL, SLICES AND LUMPS: DIVISION AND AGGREGATION IN LAW AND LIFE 9–26 (2019); Michael Taylor & Hugh Ward, *Chickens, Whales, and Lumpy Goods: Alternative Models of Public-Goods Provision*, 30 POL. STUD. 350, 353 (1982).

7. *See infra* Part IV.C.

the total collapse of a fishery. But they also represent underappreciated sources of opportunity, because they change the game from one in which everyone does best by defecting to one in which each player's best strategy depends on what she expects others to do. Forming expectations can be difficult, however, because environmental and natural resource problems often suffer from poor visibility—their shapes are ill-defined and contributions to addressing them are often unobservable. Finding ways to clear the view can help avoid catastrophic results, but because it may also enable some parties to take advantage of others (and cause others to fear being suckered), norms retain an important role in supporting cooperative action.

II. UNDERSTANDING INDIVISIBILITY

When most people think about problems involving resources, the tragedy of the commons springs immediately to mind.[8] The standard story tells us that herders with access to a common pasture will tend to overgraze it because they internalize all of the benefits of putting more livestock into the field but bear only a fraction of the costs that are visited on the pasture when they do so.[9] The mental template is a powerful one with a memorable, clear, and ultra-depressing prediction: that everyone will pursue an individually rational, but socially destructive, dominant strategy.[10]

Fortunately, reality rarely resembles this model. Social norms, repeat play, and other factors often intervene to change the payoffs that people face and hence the strategies that they will pursue. Elinor Ostrom's work explored many of the design features through which local institutions can avert tragedy in managing common pool

---

8. This framework is often associated with Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE, n.s.1243 (1968). The roots of the idea reach back much further. *See, e.g.,* ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 2–3 (1990) (discussing antecedents, including in the work of Aristotle); H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 J. POL. ECON. 124, 128–35 (1954) (analyzing common pool resource problems in fisheries and noting parallels in other resource contexts).

9. *See, e.g.*, Lee Anne Fennell, *Commons, Anticommons, Semicommons*, in RESEARCH HANDBOOK ON THE ECONOMICS OF PROPERTY LAW 35, 35–41 (Kenneth Ayotte & Henry E. Smith, eds., 2011) (discussing and critiquing this account).

10. *See, e.g.*, *id.*

resources.[11] In this Part, I focus on a structural reason why many resource dilemmas look nothing like the standard tragedy of the commons: the presence of indivisibilities.

A. What Indivisibility Means

Bridges, pipelines, and highways offer intuitive examples of indivisible goods. Although it would be physically possible to divide them up or remove segments from them, doing so would have a disproportionately negative impact on their value.[12] A ten-meter segment of a kilometer-long bridge only represents one percent of the span's total length, but removing it leaves behind something that is not 99% as good, but rather utterly worthless, at least as a bridge.[13] Even where it's trivially easy to remove an integral part—one card from a deck, one piece from a jigsaw puzzle, or one cog from a machine—doing so would destroy value because those goods are designed to work as indivisible wholes. Note also that indivisibility applies conceptually even when the whole has not yet been realized: stopping construction of a bridge when it is 99% complete defeats the purpose of building the bridge altogether, because bridges are useful only in whole-bridge units.[14]

Many environmental resources and problems lack the concreteness of a bridge or a jigsaw puzzle but share a similarly indivisible structure—taking away a portion of the resource, or failing to supply an element necessary to its continuing viability, can have catastrophic effects. Sometimes this all-or-nothing structure is just as evident as it is for any highway or bridge. Consider, for instance, the Path of the Pronghorn, a designated migratory route between Wyoming's Green River Valley and Grand

---

11. *See generally*, OSTROM, *supra* note 8. Although these small-scale solutions may be successful in preventing the destruction of the common pool resource, it is worth emphasizing that some of them can embed oppression, hierarchy, and self-dealing—as Ostrom herself recognized. *See, e.g.*, Duncan Law & Nicole Pepperell, *Oppression in the Commons: Cautionary Notes on Elinor Ostrom's Concept of Self-Governance*, in The Australian Sociological Association (TASA) 2018 Conference Proceedings: Precarity, Rights, and Resistance 7 (Grazyna Zajdow, ed., 2018) (discussing passages in Ostrom's writing that recognize such risks); Carol M. Rose, *Thinking About the Commons*, 14 INT'L J. COMMONS 557, 561 (2020) (observing that "many traditional communities are shot through with layers of hierarchy, and especially with norms about gender roles.").

12. *See* Young, *supra* note 4, at 906.

13. Dismantling it (at some cost) would yield only scrap materials. *Cf.* CHARLES R. FRANK, JR., PRODUCTION THEORY AND INDIVISIBLE COMMODITIES 32 (1969) (illustrating indivisibility by observing that splitting up "an industrial heat exchanger with a two-million-ton capacity" yields "two piles of steel scrap and other debris," not "two heat exchangers with a capacity of a million tons apiece").

14. *See* Taylor & Ward, *supra* note 6, at 353 (noting that goods like bridges "cannot be usefully provided in *any* amounts but only in more or less massive 'lumps'").

Teton National Park.[15] Protecting a contiguous path requires a series of highway underpasses and overpasses as well as careful attention to the hundreds of fences the pronghorn encounter along the way.[16] Even one unnavigable segment would thwart the annual migration and threaten the pronghorn's survival—a point central to a petition recently filed in federal district court to challenge the Bureau of Land Management's decision to permit gas wells along the route.[17] Indivisibility changes the stakes and the nature of the dispute: the alleged disruption is not simply a small fraction of an animal's wide-ranging territory, but rather an essential segment of a larger whole.[18]

As this example suggests, whether a given resource problem is viewed as exhibiting indivisibilities is itself open to interpretation and construction. The answer depends not just on physical realities (the interconnectedness of nature, or the effects of gravity on cars trying to cross an incomplete bridge) but also on how we define the relevant goal, and what counts as success or failure in achieving it.[19] For example, what might seem like just a marginal diminution in wildlife overall takes on an all-or-nothing character if we focus on preventing the extinction of a particular species. Reframing problems in ways that emphasize indivisibilities can raise the stakes (e.g., make the situation an all-or-nothing one) and, potentially, help harness cooperation.[20]

Indivisibilities lurking in some resource systems may be difficult to detect. For example, if a fishery requires a certain minimum population level for a given species to remain sustainable, fishing that drops the breeding population below that level will eliminate

---

15. *See, e.g.*, MARY ELLEN HANNIBAL, THE SPINE OF THE CONTINENT: THE RACE TO SAVE AMERICA'S LAST, BEST WILDERNESS 204–06 (paperback ed., 2013); Paul Tolmé, *Running the Gauntlet*, in *Conservation*, NAT'L WILDLIFE FED'N (June 1, 2019) https://www.nwf.org/Magazines/National-Wildlife/2019/June-July/Conservation/Habitat-Corridors.

16. *See* Tolmé, *supra* note 15. Pronghorn do not jump fences, so they need to be able to go *under* any fences across their route. *See* HANNIBAL, *supra* note 15, at 205.

17. Amended Petition for Review of Agency Action, Upper Green River All. v. U.S. Bureau of Land Mgmt., No. 2:19-cv-146-SWS (D. Wyo., Feb. 19, 2020). *See* Cassidy Randall, *"They Won't Survive": Trump Gas Wells Would Block Pronghorn Migration Route*, THE GUARDIAN (Feb. 24, 2020) https://www.theguardian.com/environment/2020/feb/24/pronghorn-migration-gas-wells.

18. For more background on the ecology of wildlife corridors and the significance of connectivity, *see generally*, JODI A. HILTY ET AL., CORRIDOR ECOLOGY: LINKING LANDSCAPES FOR BIODIVERSITY CONSERVATION AND CLIMATE ADAPTATION (2d ed. 2019).

19. Of course, there may be foundational normative disagreements about the ends to be sought or the evaluative framework to be employed in assessing progress. For instance, conservation might be sought for reasons wholly unrelated to human welfare. The visibility analysis developed here does not require or rule out any particular way of defining goals, and the examples I give are meant to be illustrative rather than prescriptive.

20. *See infra* Part II.B.

that species from the resource system—a dramatic collapse.[21] But such a population crash often follows some period in which exploitation of the resource has little or no perceptible negative effect.[22] As Carol Rose puts it, "it is typical of environmental problems that they really are *not* problems at the outset."[23] Moreover, even after declines become observable, they may be deceptive—there may be a period during which the decline is fairly modest and unalarming. But the losses may begin to snowball rapidly as the critical mass necessary to sustain the population is broken apart through overextraction. Similar threshold effects exist in multiple environmental contexts: coral reefs can suffer devastating collapses when contaminants or temperatures reach a certain critical level; small ocean temperature changes can trigger a dramatic increase in hurricanes.[24]

In cases like these, indivisibilities exist and strongly influence the potential for disastrous outcomes. But they may remain largely invisible to observers—until it is too late. A tragic example of this phenomenon can be found in the fate of the passenger pigeon, which was at one time the most common bird in North America, with massive flocks darkening the skies and populations numbering in the billions.[25] But intensive hunting quickly drove the passenger pigeon to extinction; the last surviving member of the species, Martha, died in the Cincinnati Zoo in 1914.[26] Because the passenger pigeon was a migratory species, it was only present intermittently in any given place, and because its evolutionary strategy was to form large flocks to evade predators, the birds always appeared in great quantity. There was no way to gauge their decline, and, just as important, no way to connect individual acts of groups of hunters to any particular increment of depletion.

The need for a critical mass of passenger pigeons to carry on the species made the problem a "lumpy" or indivisible one; once exploitation of the resource crossed a critical threshold, the

---

21. *See, e.g.,* Taylor & Ward, *supra* note 6, at 353 (describing and depicting possible paths for such a collapse).

22. *See, e.g., id.* ("Ecological systems such as lakes, rivers, the atmosphere, fisheries and so on can normally be exploited up to some critical level while largely maintaining their integrity and retaining much of their use value. If exploitation rates go beyond that critical level, use value falls catastrophically.").

23. Carol M. Rose, *Evolution of Property Rights*, 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 93, 96 (Peter Newman, ed., 1998).

24. *See, e.g.,* RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 11–14 (2004) (discussing "all or nothing" threshold effects in environmental contexts and citing these examples).

25. *See generally*, JOEL GREENBERG, A FEATHERED RIVER ACROSS THE SKY: THE PASSENGER PIGEON'S FLIGHT TO EXTINCTION (2014).

26. *See id.* at xii.

population collapsed irretrievably. The problem was one of low visibility. This was true in both of the senses to be explored in this Essay: the shape of the collective action problem was opaque, as was the way that individual acts aggregated to impact the outcome. There was no real-time feedback as hunting proceeded, and hence no way to calibrate the intensity of harvesting to align with sustainable levels. There was also no incentive to do so. Without any way to coordinate with the other hunters, any individual's acts of forbearance would be meaningless; someone else would take up the slack. Better visibility could have made it possible to see, and pursue, a cooperative solution.

It is easy to chalk up the fate of the passenger pigeon to a tragedy of the commons, and to blame the birds' extinction on the lack of property rights or inadequate government regulation.[27] But this misses the fact that a cooperative solution might have become possible if only the participants could have seen more clearly what was going on. The ability to monitor and trace the impact of individual actions, always important in contexts involving collective goods or commonly owned resources,[28] takes on special significance where indivisibilities are concerned. The reason relates to the ways in which the presence of indivisibilities alters the structure of a collective action problem and changes the prospects for cooperative action. The next section explains.

B. Beyond the Tragedy of the Commons

The standard tragedy of the commons story predicts that people with access to common pool resources will act in a manner that is individually rational but socially harmful—they will "defect" by doing the selfish thing, rather than "cooperate." But that result depends on a set of quite specific assumptions, as becomes clear in examining the tragedy's two-person structural equivalent—the single-shot Prisoners' Dilemma (PD).[29]

---

27. *See* OSTROM, *supra* note 8, at 8–14 (1990) (critiquing commentators who argue that either "Leviathan" or privatization represent "the only way" to solve a commons dilemma).

28. *Id.* at 45, 94–100 (discussing the importance of monitoring in common resource settings); Steven J. Karau & Kipling D. Williams, *Social Loafing: A Meta-Analytic Review and Theoretical Integration*, J. PERSON. & SOC. PSYCH. 681, 683, 696, 700 (1993) (assessing studies examining how the ability to identify and evaluate individual contributions (including self-evaluation) can reduce "loafing" on group tasks).

29. Scholars have often noted the structural equivalence between the Prisoners' Dilemma and the tragedy of the commons. *See* Rose *supra* note 11, at 564 (crediting Russell Hardin with the original insight and noting that it "is now a widely-accepted view") (citing Russell Hardin, *Collective Action as an Agreeable n-Prisoners' Dilemma*, 16 BEHAVIORAL SCIENCE 472 (1971)); *see also* OSTROM, *supra* note 8, at 3–5; BAIRD ET AL., *supra* note 2, at 34.

The titular PD setup is one in which two prisoners, interrogated separately, each have the choice to cooperate (with each other) by remaining silent, or defect (by confessing).[30] If both confess, they both receive moderate sentences, say three years. If they both stay silent, they both receive short sentences, say one year. But if one confesses and the other stays silent, the confessor goes free and the silent one goes to prison for a long time, say seven years. Focusing solely on the prison consequences, each prisoner would rationally choose to confess no matter what the other person does. If the other person will stay silent, it is better to confess (going free versus one year), and if the other person will confess, it is still better to confess (three years versus seven).

Under these conditions, and assuming no repeat play, binding contracts, social norms, or extra-legal consequences, there is a single equilibrium outcome: mutual defection.[31] The same analysis holds if we translate the story into a resource context where defecting involves overharvesting or polluting, and cooperating involves refraining from these actions—so long as one always does better defecting regardless of what the other players in the story do. Public goods games in which contributions are multiplied and distributed evenly to the players epitomize this structure; as long as the "multiplier" is smaller than the number of players, each player does best by defecting and contributing nothing, regardless of what anyone else does.[32] However, researchers have found that few situations, inside or outside the lab, match the payoff structure specified by the PD game.[33] As a result, the analyses that flow from it are unlikely to track real-world resource dilemmas.[34] There are

---

30. *See, e.g.,* Lee Anne Fennell and Richard H. McAdams, *Inversion Aversion*, 86 U. CHI. L. REV. 797, 807–08 (2019) (presenting and describing a standard PD game matrix with the payoff structure detailed here).

31. *See, e.g.,* Richard H. McAdams, *Beyond the Prisoners' Dilemma Coordination, Game Theory, and Law*, 82 S. CAL. L. REV. 212 (2009). The mutual defection solution is a Nash equilibrium, named after John Nash, which describes a set of strategies in which no player can do better given the strategies of the other players. *See id.* at 212 n.9 (citing BAIRD ET AL., *supra* note 2, at 310).

32. *See* Pamela Oliver et al., *A Theory of the Critical Mass. I. Interdependence, Group Heterogeneity, and the Production of Collective Action,* 91 AM. J. SOC. 522, 540 (1985) (explaining that under such conditions, "predictions about others' behavior are irrelevant, for contributions are irrational no matter what other people do"). If, on the other hand, the multiplier is *larger* than the number of players, there is a different dominant strategy: everyone will contribute everything they have, regardless of what anyone else does. *See id.* at 533–34 (explaining that when production functions are linear, the slope determines which of two patterns will prevail: "[e]veryone will contribute either everything possible or nothing").

33. *See, e.g.,* McAdams, *supra* note 31; Glenn W. Harrison & Jack Hirshleifer, *An Experimental Evaluation of Weakest Link/Best Shot Models of Public Goods*, 97 J. POL. ECON. 201, 201–02 (1989).

34. *See, e.g.,* Fennell & McAdams, *supra* note 30, at 807–10 (discussing and citing

many reasons for this divergence, but the one of interest here is the indivisibility of the good or goal, which keeps any party from enjoying a positive payoff unless enough people cooperate.

When indivisibilities are present, the game differs markedly from the one suggested by the PD or tragedy of the commons template. Two other game theory templates are especially relevant, both evocatively named: the Stag Hunt (also called the Assurance Game), and Chicken (also called the Hawk-Dove Game).[35] The Stag Hunt story, based on a passage from Rousseau, involves two hunters who must choose whether to cooperate with each other to bring down a deer or defect by hunting rabbits individually.[36] The deer is a much better food source for the pair than the rabbits they can hunt on their own, but it is impossible for either of them to bag it alone.[37] A deer kill is an indivisible event; it is not helpful to halfway hunt a deer.[38] As a result, neither hunter wants to go deer hunting on her own; doing so would leave her hungry at the end of a wasted day. If the other hunter is not going to help bag a deer, rabbit hunting is her best bet. Here, the two hunters do best if they can be sure both will cooperate; with that assurance in place, they are not tempted (as they are in the PD game) to defect.[39]

This game setup illustrates the effects of indivisibility, but it diverges from most environmental or resource dilemmas in other respects. In the two-person Stag Hunt game, each of the two players is necessary to bring down the lumpy ungulate, and the payoffs are symmetric. In most real-world situations, however, some degree of cooperation is needed to achieve an indivisible goal, but usually unanimous cooperation is not essential, and payoffs vary because

---

literature on this point); OSTROM, *supra* note 8, at 33–30 (criticizing the assumption that all collective action problems are Prisoners' Dilemmas); McAdams, *supra* note 31 (describing widespread overuse and misuse of the Prisoners' Dilemma framework by legal academics).

35. *See, e.g.,* Taylor & Ward, *supra* note 6; McAdams, *supra* note 31. There are minor variations, not relevant here, between certain versions of the Assurance Game and the Stag Hunt. *See* Daphna Lewinsohn-Zamir, *Consumer Preferences, Citizen Preferences, and the Provision of Public Goods*, 108 YALE L.J. 377, 392 nn.39–40 (1998); *see also* Amartya K. Sen, *Isolation, Assurance and the Social Rate of Discount*, 81 Q.J. ECON. 112, 114–15 (1967) (formulating the "Assurance Problem").

36. *See* EDNA ULLMANN-MARGALIT, THE EMERGENCE OF NORMS 121 n.15 (1977) (quoting JEAN JACQUES ROUSSEAU, ON THE ORIGIN OF INEQUALITY 349 (G.D.H. Cole trans. 1952)).

37. *See id.* at 121 (quoting DAVID K. LEWIS, CONVENTION: A PHILOSOPHICAL STUDY 7 (1969).

38. *See* Kristen Hawkes, *Sharing and Collective Action*, in EVOLUTIONARY ECOLOGY AND HUMAN BEHAVIOR 269, 288 (Eric Alden Smith & Bruce Winterhalder, eds., 1992) ("Hunters cannot bring down part of a giraffe."); LEWIS, *supra* note 37, at 7 ("[I]f even one of us deserts the stag hunt to catch a rabbit, the stag will get away; so the other stag hunters will not eat unless they desert too.").

39. *See, e.g.,* McAdams, *supra* note 31, at 221.

different people need not all contribute the same amount of money, materials, or effort. In these cases, a second strategic interaction comes into play: Chicken.[40]

Chicken is named for a hazardous driving game in which two foolhardy motorists are set on a head-on collision course and one (or both) must swerve to avoid catastrophe.[41] A player can lose the game by swerving, but both players lose far worse by crashing. Each player would rather drive straight and win out over the swerver, yet she cannot safely do so unless she expects her opponent to swerve.[42] A crash is an indivisible event, a bad shared by all who experience it, and everyone has an interest in keeping it from happening. Dealmaking often features this dynamic—the worst outcome is the total loss of the surplus from completing the deal (a kind of crash), but each party wants more of that surplus.[43]

Putting the two games together, we can see that often there is a Chicken game in progress about who will cooperate to bring down the metaphorical stag in the story—the indivisible good that can be enjoyed only with enough cooperation.[44] Everyone loses if the stag is not brought down, but the ones who lose the most are those who chose the cooperative strategy only to go hungry. Everyone wins if the stag is brought down (assuming that sharing is required, or that it's impossible to exclude people from the spoils), but those who win the most are those who did not contribute anything to its demise (assuming unanimous participation is not required to bag the stag).

Indivisibilities change the collective action problem from one in which the dominant strategy is to defect, no matter what anyone else does, to one in which one's own best strategy depends crucially on what one expects others to do. In game theory jargon, there are *multiple equilibria*:[45] players may cooperate and achieve the indivisible good, or things may fall apart entirely due to miscalculations, lapses in communication, or strategic behavior.

---

40. *See, e.g.,* Taylor & Ward, *supra* note 6.

41. *See, e.g.,* BAIRD ET AL., *supra* note 2, at 44.

42. *See id.*

43. *See id.* at 43–44.

44. *See* Hawkes, *supra* note 38, at 289 ("If there are more potential participants than the minimum required, however, games of Chicken arise over who shall complete the working group."); Taylor & Ward, *supra* note 6, at 357–58 (describing how Chicken and Assurance games interact in a fishing scenario where not everyone's cooperation is required); Hugh Ward, *Three Men in a Boat, Two Must Row: An Analysis of a Three-Person Chicken Pregame*, J. CONFLICT RES. 371 (1990) (discussing Chicken pre-games in which parties vie to precommit to not contribute to a lumpy good that does not require everyone's contributions).

45. *See* McAdams, *supra* note 31, at 212.

Recognizing that *expectations* determine actions and outcomes shifts the emphasis to how people form expectations about how others will act.[46]

III. STRUCTURE AND STRATEGY

Indivisibility is a game changer. Defecting is no longer the single dominant strategy; cooperation may be rational depending on what others will do. But players faced with indivisible resource problems may still act as if they are trapped in a tragedy of the commons.[47] A core problem is the inability to observe or predict the choices that other people will make.[48] More foundationally, however, the terms of the game itself may be unclear. In this Part, I examine the structural features of indivisible resource problems and show how these features—and differences among them—influence the strategies of the players.

A. Anatomy of a Collective Action Problem

The Stag Hunt and Chicken games both provide an intuitive sense of why indivisibility matters to cooperation: everyone stands to lose unless enough players choose the cooperative strategy. Real-world resource dilemmas are, of course, far more complex than these simple two-player games. We can further refine our understanding of collective action problems involving indivisibilities by focusing on three defining features: production functions, participation requirements, and payoffs.[49]

1. Production Functions

A production function is simply a way of capturing the relationship between inputs and outcomes in producing a particular good or bad.[50] Suppose we want to create a migration pathway. What happens to the value of the pathway as each incremental segment is added? If the pathway is only useful when it is complete

---

46. *See* THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT 54–58 (1960); Robert B. Ahdieh, *The Visible Hand: Coordination Functions of the Regulatory State*, 95 MINN. L. REV. 578, 618–19 (2010).

47. *See* HARDIN, *supra* note 5, at 57–59 (discussing several reasons why the universal defection outcome associated with the PD might occur even when step goods are involved).

48. *See id.* at 58–59 (describing the situation in which "members of a group must choose when they have deficient knowledge of how others are choosing").

49. *See* FENNELL, *supra* note 6, at 47–49.

50. *See* Oliver et al., *supra* note 32 (describing and depicting various production functions for public goods).

(perhaps because it is essential that the animals using it be able to move between habitat patches located at each end),[51] then *nothing* happens to the value of the pathway as each segment is added, until the final piece is put in place. Graphically, value follows a flat line until it suddenly jumps up in a large single step when the last segment is added and the path is completed.[52]

By contrast, a linear production function provides proportionate benefits as inputs are contributed. Think of a parking meter where adding each coin buys a proportionately calibrated unit of parking time, or a soup kitchen where each marginal ladle-full delivers a roughly equivalent nutritional benefit to an additional person. It is possible to quibble with all of these examples: even a partial wildlife corridor might provide some habitat benefits, people often need to park for discrete chunks of time, and soup production usually involves economies of scale. More generally, few if any goods involve a literal single step of value or exhibit a fully linear production function. Many production functions follow a more complex path that combines steps with slopes or contains regions of increasing or decreasing returns—or some of each.[53]

It may also be unclear what production function best describes observed phenomena. For example, we may be uncertain whether a particular resource is more valuable when consolidated into a single large chunk (which would suggest increasing returns to scale) or divided into smaller, scattered segments (which would suggest the opposite).[54] In environmental science, the famous SLOSS ("single large or several small") debate took up just this question in the habitat context, with largely inconclusive results.[55] Interconnectedness among organisms and habitats can make fragmentation harmful and consolidation valuable,[56] but smaller, well-separated areas can provide greater diversification of risk

---

51. *See, e.g.,* Lynne Gilbert-Norton et al., *A Meta-Analytic Review of Corridor Effectiveness*, 24 CONSERV. BIO. 660, 667 (2010).

52. The "last segment" might be any of the segments along the path, if each is essential.

53. *See, e.g.,* HARDIN, *supra* note 5, at 57–59; Oliver et al., *supra* note 32, at 525–28.

54. Similar questions crop up in land assembly contexts, where holdout dynamics can make it difficult or impossible to tell whether component parcels are more highly valued separately in their existing uses or aggregated for a new use. *See, e.g.,* FENNELL, *supra* note 6, at 36–37.

55. *See, e.g.,* ENRIC SALA, THE NATURE OF NATURE: WHY WE NEED THE WILD 154 (2020); HILTY ET AL., *supra* note 18, at 60.

56. On the costs of fragmentation, *see, e.g.*, SALA, *supra* note 55, at 153; HILTY ET AL., *supra* note 18, at 55–82; Nick M. Haddad et al., *Habitat Fragmentation and Its Lasting Impact on Earth's Ecosystems*, 1 SCI. ADV. (Mar. 20, 2015), https://advances.sciencemag.org/content/1/2/e1500052.full.

and may be less costly to add in already developed areas.[57] Still, we know that for many environmental goods, the whole is greater than the sum of the parts, and relatively small changes, such as those that break up minimum sustainable populations, can cause disproportionate harm.[58]

A related problem is that even if we know that crossing a critical line will make a large difference, it may be unclear what state of the world that line corresponds to, or where our current state of affairs stands relative to it. For example, we may be uncertain about the maximum sustainable yield for a given fishery, and we may even lack good data about actual fishing levels. In other words, we might know that there is a cliff effect in a particular resource context, but have no idea whether we are about to go over the cliff. Projections that extrapolate from existing or historical data may present a false picture where significant nonlinearities are present. As a result, models are constantly contested and revised, and an accurate story may emerge only after much damage has already occurred.[59]

Despite these caveats, the distinction between incremental and all-or-nothing effects remains structurally significant. The lumpier or more indivisible a given good or goal is, the less possible it is for anyone to enjoy its benefits until the critical threshold is reached. This does not mean that people will always cooperate to produce the good, only that they are not categorically better off choosing not to do so. The good may be provided or preserved in its entirety, or it may be lost altogether. Which result will prevail? The answer depends in part on whose cooperation is necessary to the outcome, which brings us to participation requirements.

2. Participation Requirements

Participation requirements tell us who, exactly, must agree or contribute in order for a particular goal to be reached.[60] Where a

---

57. *See, e.g.,* SALA, *supra* note 55, at 154 (observing that "[s]mall protected areas may be the only practical tool in regions heavily populated by humans"); HILTY ET AL., *supra* note 18, at 146–63 (discussing potential drawbacks to corridors, including economic costs and "edge effects" from long and narrow pathways).

58. Similarly, protecting a resource like a fishery incompletely may do very little good compared with providing full protection. *See, e.g.,* SALA, *supra* note 55, at 150 ("In protected areas that allow some fishing, the fish biomass does not even double. But in fully protected areas, the total biomass of fish is, on average, six times greater than in unprotected areas nearby, and sharks are 15 times more abundant.").

59. *See, e.g.,* Gordon, *supra* note 8, at 126–28 (discussing shifts in views about the state of fisheries); Thompson, *supra* note 1, at 258–59 (noting the significance of "scientific uncertainty" about the state of resources such as fisheries, and the tendency toward "tremendous wishful thinking" and overly optimistic construal of ambiguity).

60. Although the discussion here focuses on the cooperation of individuals, many

physical input like real estate is necessary to produce the good, as in the case of a highway or wildlife corridor, cooperation must come from those who own or control the land lying along the path. If there is only one viable path, then every one of the people who owns land along it must cooperate, unless there is a coercive process like eminent domain to override their failure to cooperate. Other situations have more flexible participation requirements—often, merely "enough" people must cooperate, not any specific set of actors. For example, if vaccination of 90% of a population against a disease produces herd immunity sufficient to protect the community as a whole, then most, but not all, people must cooperate to produce that good.[61]

For common pool resources like the passenger pigeon, participation requirements are tricky: forbearance by some people may be met by intensified hunting from others. Everyone who is in a position to hunt intensively can affect the outcome. By contrast, participation requirements are quite open-ended when a monetary goal is involved because the necessary threshold can be met by any one person or combination of persons with the necessary funds. The indivisibility of the good in question and the stringency of the participation requirements tell us a great deal about who needs to cooperate, but these factors do not tell us whether that cooperation will occur. For that, we need to examine payoffs.

3. Payoffs

The signature feature of an indivisible good is that no one can enjoy any increment of the good until it is supplied in full (or in some minimally useful chunk). As a result, payoffs do not rise above zero for *anyone* unless enough people cooperate (per the participation requirements) to supply the good (or avoid the bad). This foundationally changes the dynamics of the situation and keeps noncooperation from being the dominant strategy under all circumstances. Failing to cooperate *could* win one a higher payoff (if it is possible to free ride on others or extract more surplus), and cooperating *could* reduce one's payoff below the initial baseline (wasting effort futilely hunting a stag alone), but cooperating might

---

resource problems will require the cooperation of larger entities like firms or governments. We might think of these situations as involving an antecedent collective action problem among stakeholders or constituents to influence the incentives of the entities in question.

61. *See* THOMAS C. SCHELLING, MICROMOTIVES AND MACROBEHAVIOR 222–23 (revised ed. 2006)

also make the critical difference between being able to enjoy a large indivisible good (or dodge a catastrophe) and losing out on that opportunity altogether.

Several features determine the specifics of a given payoff structure. If not everyone's participation is essential to supply the good, is it possible to exclude noncontributors from the benefits? If the indivisible good is supplied, are the gains distributed symmetrically (as in the Stag Hunt) or asymmetrically (as in Chicken)? If the threshold is not reached, can those who have contributed get their contributions back, or are those amounts simply forfeited? If the threshold is exceeded, who (if anyone) gets the excess? Finally, once people contribute to the good in question, can their contributions be "raided" or eroded by noncontributors? For example, if some fishers curtail their fishing to improve sustainability, can a noncooperating subset of fishers intensify their own efforts to nullify (and profit from) those efforts?

Any factor that influences how and whether contributions to the good can be wasted, enjoyed, eroded, raided, or undone by other actors can alter the expected payoff from cooperating. The next sections elaborate on these and other aspects of a resource game's structure. The prospects for cooperation depend on one's ability to see this structure and predict the moves of others within it.

B. A Lumpy Public Goods Game

Research has investigated contribution decisions in stylized experimental settings where the rules of the game are made explicit. Of particular interest for our discussion are games in which players must choose whether or not to contribute to a central fund, where meeting a particular threshold of contributions will trigger the payment of a large bonus to be distributed among all the players. This setup replicates a lumpy public good, like finding a cure for a disease or saving a species. The good has an all-or-nothing quality; it generates benefits for everyone if it is provided, and no benefits for anyone if it is not.

A standard game might involve seven players who are each given $5 that they can contribute (entirely) or keep.[62] If at least five contribute, a bonus of $70 pays out to the group in equal shares ($10 each). But if the threshold is not reached, the contributors go home

62. *See, e.g.*, Robyn M. Dawes et al., *Organizing Groups for Collective Action*, 80 AM. POL. SCI. REV. 1171 (1986) (presenting results of similarly structured games); Christopher C. Fennell & Lee Anne Fennell, *Fear and Greed in Tax Policy: A Qualitative Research Agenda*, 13 WASH. U. J. L. & POL'Y 75, 93–100 (2003) (discussing and analyzing games involving step-level goods).

empty-handed. Likewise, if the contribution is exceeded, no one gets more than their share of the bonus. Notably, players need not engage in guesswork about production functions, participation requirements, or payoffs. Unlike real-world resource dilemmas, where the shape of the problem is often opaque, the experimental game's structure is expressly conveyed in the instructions. This transparency immediately resolves one set of visibility problems, but it leaves players uncertain about the strategies that other players will pursue.

What do we expect will happen? No one can enjoy any payoffs unless the threshold is reached, so there is some motive to contribute. At the same time, there is a risk of losing one's money if the threshold is not reached, as well as an opportunity to gain even more by hanging onto one's money if the threshold will be reached in any case. In an experiment similar to this, nearly two-thirds of the players chose to contribute under such conditions.[63] Is it possible to do better? One experimental intervention involved a money-back guarantee similar to the funding one might find on a platform like Kickstarter: if the threshold is not reached, everyone gets their money back. Interestingly, this did not seem to help significantly.[64] On the one hand, it was reassuring to the players that they would not lose their money if the threshold was not reached. But on the other hand, they could also predict that the money-back feature would reassure others, making it more likely their own contribution would not be needed after all.[65] Free riding remained a problem.

More effective was an intervention that effectively kept noncontributors from gaining anything by defecting.[66] It was easy to accomplish this result in the experimental setting by specifying that no one could leave with more than $10 (the share of the bonus that each player would receive if the threshold was reached). As long as the threshold was reached, everyone went home with an identical payoff, whether they chose to contribute or not.

---

63. *See* Dawes et al., *supra* note 62, at 1176–78 & tbl. 2.

64. *See id.* at 1175–78. There are, however, some reports of success with this method. *See id.* at 1172; *see also* Ian Ayres, *Voluntary Taxation and Beyond: The Promise of Social-Contracting Voting Mechanisms*, 19 AM. L. & ECON. REV. 1, 4–5 (2017) (discussing mixed results of laboratory and field experiments on "provision point mechanisms" that refund contributions if the target is not met). For further discussion of this approach and variations on it, *see generally*, Julia Y. Lee, *Gaining Assurances*, 2012 WIS. L. REV. 1137 (2012). For an especially interesting field experiment that involved soliciting a threshold level of contributions to preserve habitat for the Bobolink, a grassland-nesting songbird, *see* Stephen K. Swallow et al., *The Bobolink Project: Selling Public Goods from Ecosystem Services Using Provision Point Mechanisms*, 143 ECOLOGICAL ECON. 236 (2018) (reporting results of using various provision point mechanisms, with money-back guarantees, to fund contracts with farmers who would alter their haying practices to preserve nesting areas).

65. *See* Dawes et al., *supra* note 62, at 1174.

66. *Id.* at 1175, 1183.

Yet in many real-world contexts, there is no way to meaningfully offer refunds or keep noncontributors from free riding. Efforts expended on conservation measures generally cannot be clawed back if those efforts fail; if they succeed, the results will be enjoyed or shared by noncontributors as well as contributors.

What alternatives exist? One answer is to inculcate norms of cooperation, so that people suffer shame and social stigma if they do not cooperate, and enjoy peer approval or esteem if they do cooperate.[67] This is another way of rewarding cooperation and punishing defection, only using non-monetary payoffs. We will return to this possibility, and its connections to visibility, below.[68] But first it is worth emphasizing a way in which self-interest alone can solve the free-rider problem: if people are convinced that their own contribution is essential to the outcome. When goods are indivisible and everyone stands to benefit from their provision—or suffer from their absence—it can be rational (in a narrow self-interested sense) for people to contribute.[69] The next section explains.

C. The Importance of Being Essential

When goods are indivisible, each piece of the whole matters. That can generate holdout problems, because each person who controls an essential element has an effective veto. However, participation requirements vary: often, the good may be supplied (or the bad avoided), even if some people do not cooperate or contribute. That eases the holdout problem, but introduces a second problem: noncooperators can improve their payoff relative to cooperators by free riding, if enough cooperators exist to provide the good.

A third problem, a sense of futility, can block progress whenever a high threshold must be reached in order to supply a good or avoid a bad. People may refrain from cooperating or contributing because they feel their efforts can make no difference against such a vast problem. Benjamin Hale describes the disabling sense of "causal impotence" that can impede progress in the climate change

---

67. *See, e.g.,* Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338 (1997).

68. *See infra* Part IV.D.

69. *See, e.g.,* Glenn W. Harrison & Jack Hirshleifer, *An Experimental Analysis of Weakest Link/Best Shot Models of Public Goods*, 97 J. POLIT. ECON. 201, 203 (1989) ("In desperate circumstances in which each person must do his or her duty (and even more) if the community is to survive, what appears to be self-sacrificing behavior may actually be selfishly optimal in swinging the balance between community viability and social collapse.").

context,[70] and other scholars have noted how "drop in the bucket" perceptions can deter action and dissipate personal responsibility.[71] As Arden Rowell and Kenworthey Bilz explain, people may distance themselves from environmental problems by emphasizing the insignificance of their own marginal impact: "'It's not like me riding my bike to work is going to magically fix local air quality'"[72]

All three of these problems (holding out, free riding, and futility) relate to the significance of being essential to producing a particular good, whether that means putting together a physical assembly like a wildlife corridor or highway, reaching a goal like curing a disease or winning an election, or avoiding a catastrophic result like species collapse. Where a good has a lumpy all-or-nothing character, contributions toward producing it can be futile, critical, or superfluous.[73] If one's payoffs stem only from the provision of the good (or lack thereof), and not also from intrinsic or social rewards from cooperating (or punishments for not cooperating), then one would rationally contribute one's own efforts or resources when three conditions are met: (1) one's contribution will be critical to the outcome; (2) one will reap enough from the provision of the good to more than cover the cost of contributing; and (3) it is not possible to improve one's payoff through strategic behavior.

In a simple two-person Stag Hunt game, these conditions are relatively easy to meet. The participation of either party makes the other party's participation critical to the outcome, and the payoffs assume that the spoils will be shared in a way that makes that critical participation worthwhile. Futility—hunting stag alone—is the only risk in the story, and it is entirely eliminated if the (only) other player can be counted on to hunt stag. The cooperative solution is assured if each party can see that the other will cooperate. In other words, visibility alone can do the trick. This

---

70. Benjamin Hale, *Nonrenewable Resources and the Inevitability of Outcomes*, 94 THE MONIST 369, 381–82 (2011).

71. *See, e.g.,* Daniel Bartels & Russell C. Burnett, *A Group Construal Account of Drop-in-the-Bucket Thinking in Policy Preference and Moral Judgment*, 47 J. EXPERIMENTAL SOC. PSYCH. 50, 50–51 (2011) (discussing Peter Unger's notion of "futility thinking" and connecting it to "drop-in-the-bucket thinking" in which a larger denominator makes a given saving of lives or resources seem less compelling)*; see also* ULLMANN MARGALIT, *supra* note 36, at 28–29 (discussing how the "condition of individual insignificance" can produce higher levels of defection).

72. ROWELL & BILZ, *supra* note 3, at 34.

73. *See* Amnon Rapoport, *Provision of Public Goods and the MCS Experimental Paradigm*, 79 AM. POL. SCI. REV. 148, 149–51 (1985) (discussing payoff calculations that depend on whether one's will be "critical" rather than wasted or unnecessary); Dawes et al., *supra* note 62, at 1178–81 (examining probabilities of being "futile, critical, and redundant"); *see also* Fennell & Fennell, *supra* note 62, at 93–96.

outcome is also stable: neither party will do better, defecting so long as the other cooperates. In many real-world settings, however, at least one of these conditions fails.

Futility often presents a large threat in many-player contexts. Convincing people that their efforts are important—that they will add up to something—can, counterintuitively, be approached by asking for very little. The 1938 "March of Dimes" campaign to eradicate polio took just this tack, soliciting a contribution increment that was both clear and broadly attainable—one dime.[74] Research on charitable contributions has found that communicating messages like "even a penny will help" can induce more people to contribute, at least in face-to-face solicitation settings—an effect known as "legitimizing paltry contributions."[75] In the context of an indivisible good, the message is only conditionally true; a penny or a dime will not help at all, unless enough other people contribute as well. Perhaps such solicitations send the message that the solicitors are confident about being able to assemble a large enough chunk of contributions to supply a large indivisible good like curing a disease.

Where not everyone's participation is essential, the prospect of free riding arises—assuming the good is one from which noncontributors cannot be excluded. Here visibility might actually seem to backfire if it enables people to see when enough others have contributed and they can safely free ride. If everyone tries to sit back and watch, making contributions visible might mean that there are no contributions to see. Yet keeping contributions hidden leaves people with no guidance about the best strategy to pursue, other than their own assumptions about what others are doing—assumptions that are prone to systematic distortions.[76] Making choices in the dark, people may be paralyzed by a sense of futility, tempted by the prospect of free riding on others, or fearful

---

74. *See Origin Of Our Name,* MARCH OF DIMES, https://www.marchofdimes.org/mission/eddie-cantor-and-the-origin-of-the-march-of-dimes.aspx.

75. *See* Robert B. Cialdini & David A. Schroeder, *Increasing Compliance by Legitimizing Paltry Contributions: When Even a Penny Helps*, 34 J. PERSONALITY & SOC. PSYCH. 599 (1976); *see also* Indranil Goswami & Oleg Urminsky, *When Should the Ask be a Nudge? The Effect of Default Amounts on Charitable Donations*, 59 J. MKTG. RESEARCH 829 (2016) (presenting results indicating that low defaults increase contribution rates, but also cause people to scale back their contributions to the default amount).

76. The psychological study of "social projection" has identified a number of biases, including "the false consensus effect" (assuming that one's own behaviors or beliefs are more prevalent than they actually are) and the "uniqueness bias" (underestimating how many others will act as commendably as oneself when engaged in good behaviors, or overestimating how many others will act as poorly as oneself when engaged in bad behaviors). *See, e.g.,* Benoit Monin & Michael Norton, *Perceptions of a Fluid Consensus: Uniqueness Bias, False Consensus, False Polarization, and Pluralistic Ignorance in a Water Conservation Crisis*, 29 PERSONALITY AND SOC. PSYCH. BULL. 559 (2003). *See also* McAdams, *supra* note 67, at 400–05 (discussing problems communicating a consensus and the prevalence of "false consensus" effects).

of others free riding on them. In the absence of a regulatory approach that *requires* participation, what alternatives remain?

One possibility is to construct indivisible goals that effectively make everyone's cooperation essential (as it is in the two-person Stag Hunt). Samuel Popkin's analysis of political entrepreneurship in peasant movements offers useful insight on this point: "if a large overall goal can be broken into many small independent pieces, all of which are necessary, the free-rider problem can be overcome, for if each person has a monopoly on a necessary factor for the final goal, all contributions are essential."[77] This observation is consistent with research findings on dilemmas that have a "weakest link" structure in which any failure to contribute is fatal to the goal.[78]

Returning to the lumpy public goods game above, suppose that *every* player had to contribute their $5 in order for the threshold to be met for receiving the bonus. This makes the game easier to solve in one way, because there is no opportunity for anyone to free ride, but it also makes it seem riskier to contribute if people are uncertain that others will also contribute. The prospects for cooperation remain relatively high, however, because everyone is in symmetrical positions with respect to contributions and payoffs; all that is needed is mutual assurance that all will contribute.

A different dynamic occurs in many land assembly contexts. Here, the fact that each landowner's parcel is essential to a planned project (a highway, say, or a major redevelopment effort) presents a holdout problem that can thwart efforts to put the pieces together through private sales. Such holdout problems form a primary rationale for eminent domain, which overrides the need to assemble cooperation from all of the landowners. Far from facilitating cooperation, knowledge of one's own centrality to the overall scheme can prompt strategic behavior in attempting to gain more of the assembly surplus. This strategizing can raise costs or even sink the assembly altogether. Hence the observation that private developers, who are not subject to the same transparency requirements as governments, might be in a better position to assemble land in some contexts because they can rely on secrecy and proxy purchasers to obscure their assembly plans.[79]

Being essential, and knowing it, goes from spurring cooperation in a public goods game to impeding it in the land assembly case.

---

77. SAMUEL L. POPKIN, THE RATIONAL PEASANT: THE POLITICAL ECONOMY OF RURAL SOCIETY IN VIETNAM 257 (1979).

78. *See, e.g.,* Harrison & Hirshleifer, *supra* note 33; Hawkes, *supra* note 38, at 288–89.

79. *See* Daniel B. Kelly, *The "Public Use" Requirement in Eminent Domain Law: A Rationale Based on Secret Purchases and Private Influence*, 92 CORNELL L. REV. 1, 20–24 (2006) (discussing the use of secret buying agents by Harvard and Disney to assemble land).

Why? The answer relates to whether a player can do even better by *threatening* not to cooperate. This possibility did not exist in the stylized Stag Hunt, because cooperation involved symmetrical and essential contributions and both players stood to get equal payoffs. By contrast, Chicken presents the possibility that, in achieving an indivisible good (avoiding a crash) one party wins more than the other—facts that much more closely resemble real-world resource dilemmas in which different parties stand to gain or lose different amounts from realizing an indivisible goal.[80]

Even in Chicken, everyone finds it in their own interest to cooperate if necessary, to avoid the crash outcome. But the game is a dangerous one because each party wants to glean more surplus along the way. Parties miscalculate and wind up destroying deals that would be valuable for all concerned. Even though visibility seems like part of the problem, it is the knowledge of one's own centrality to the goal coupled with *misreading* what the other party will do that leads to tragedy. Refusal to swerve in Chicken is always based on a prediction that the other party *will* swerve. Where it is clear that this is not the case, swerving becomes the best strategy. This is why one party's unilateral precommitment to not swerving (by tearing out the steering wheel, for example) can ensure a win while precluding a tragic crash—but only if the other party sees it![81]

In short, visibility can improve predictions about the behavior of others, as well as illuminate the structure of the game that is underway. The next Part explains how enhanced visibility can promote cooperative rather than destructive equilibria.

---

80. A related possibility is that there might be two (or more) alternative goals that the parties could pursue cooperatively, either of which would bring gains to both of them, but in different proportions. This payoff structure tracks a standard game dubbed the Battle of the Sexes (BOS) in which both members of a couple will gain by attending an event together but one will gain more from attending Event A and the other will gain more from attending Event B. *See* BAIRD ET AL., *supra* note 2, at 41–42. Similarly, the hunters in our story might coordinate on hunting stag or on hunting bison, with one player benefiting more from the former, and the other player benefiting more from the latter. Hence, we might see a strategic interaction over *what* to cooperatively hunt embedded in the decision to cooperatively hunt in the first place (rather than just hunt rabbits alone). *Cf.* RICHARD H. MCADAMS, THE EXPRESSIVE POWERS OF LAW: THEORIES AND LIMITS 69 (2015) (discussing instances in which a BOS is embedded within a PD game). Environmental analogues are plentiful; progress typically requires cooperation, but that cooperation could take a variety of different forms with different distributive consequences.

81. *See* HERMAN KAHN, ON ESCALATION: METAPHORS AND SCENARIOS 11 (1965) (describing a player's strategy of throwing the steering wheel out the window and observing that "[i]f his opponent is watching, he has won. If his opponent is not watching, he has a problem . . . ."); *cf.* SCHELLING, *supra* note 46, at 24 ("if the buyer can accept an irrevocable *commitment*, in a way that is unambiguously visible to the seller, he can squeeze the range of indeterminacy down to the point most favorable to him.").

IV. ENHANCING VISIBILITY

Because indivisible goods have an all-or-nothing structure, there can often be a razor's edge dynamic in which things could go either of two very different directions—complete success or total failure. How can visibility tip equilibria in the direction of conservation rather than devastation, viability rather than extinction, sustainability rather than catastrophe? The good news is that a problem's indivisible structure can help catalyze cooperation. The fact that achieving the cooperative solution is in the interest of all concerned makes it possible for policies to work with, rather than against, self-interest. The bad news is that indivisible environmental problems often suffer from low visibility along a number of dimensions. Not only is their structure often opaque, the strategies undertaken by other players may be impossible to observe or predict.

These two shortfalls in visibility, although conceptually distinct, are empirically entwined in many environmental settings. The payoffs that will flow from particular combinations of choices—crucial to understanding the structure of the game—will often be contested and unclear. Because human actions and resource outcomes are often highly attenuated and temporally lagged, the way one's own choices combine with those of others will generally be unknown. For similar reasons, it may be impossible to infer what strategies others are pursuing from the current state of a given resource system, or to guess what choices others are likely to make next.

Both sorts of visibility challenges—seeing the problem's structure and seeing the strategies of others—are exacerbated by a predicate problem: recognizing that a problem worth solving exists in the first place. Many environmental threats are hard to visualize because they depend on complex interactions that are not directly observable, that are diffuse across time and space, and that often have little immediate effect on human beings.[82] It is impossible to apprehend the structure of a problem or to predict how others will respond to it without first recognizing it *as* a

---

82. *See, e.g.*, ROWELL & BILZ, *supra* note 3, at 13 (emphasizing that environmental problems are difficult to solve because they are diffuse, complex, and tend to impact nonhuman species); RHETT LARSON, JUST ADD WATER 11–12 (2020) (observing that climate change lacks resonance for many because it is framed in terms that seem inconsequential, distant, or abstract); Elke U. Weber, *Experience-Based and Description-Based Perceptions of Long-Term Risk: Why Global Warming Does Not Scare Us (Yet)*, 77 CLIMATIC CHANGE 103, 108 (2006) (explaining why the threat of climate change does not elicit visceral reactions from many Americans).

problem. Although this point is not unique to indivisible resource problems, it carries particular significance where a certain threshold of cooperation is critical to success.

The sections below consider how we might overcome those obstacles to enable people to put together resources and cooperation in socially valuable ways.

A. Concretization

Problems that are vivid, concrete, immediate, and discrete attract more attention—and are more likely to spur cooperative action—than diffuse, distant, and abstract threats. One manifestation of this tendency is found in the psychological preference for helping specific "identifiable victims" over larger numbers of undifferentiated people or "statistical lives."[83] That environmental concerns often involve long-run harms to large numbers of unidentified people (many of whom are not yet born) presents a policy challenge.[84] Similarly, conservation resources are disproportionately directed toward "charismatic megafauna" like tigers or polar bears over species that are less visible or harder to identify with, like insects, fish, or invertebrates.[85] Resource threats that are entirely invisible, like greenhouse gases, or that are masked by the mobility of the resource units, as in the case of the passenger pigeon, may escape attention altogether.[86]

Although these tendencies seem like cognitive biases or errors, we can also understand them as rational reactions to coordination problems that depend on attracting the attention—and cooperation—of others. A stag hunt is a compelling metaphor for a coordination game because it features a visible, concrete, well-

83. *See, e.g.*, Thomas C. Schelling, *The Life You Save May Be Your Own*, CHOICE AND CONSEQUENCE 113, 115 (1984); Cynthia Cryder and George Loewenstein, *The Critical Link Between Tangibility and Generosity*, in THE SCIENCE OF GIVING: EXPERIMENTAL APPROACHES TO THE STUDY OF CHARITY 237 (Daniel M. Oppenheimer and Christopher Y. Olivola, eds., 2010).

84. *See e.g.*, Shi-Ling Hsu, *The Identifiability Bias in Environmental Law*, 35 FLA. ST. L. REV. 433 (2008).

85. *See, e.g.*, ROWELL & BILZ, *supra* note 3, at 198–203; Andrew Metrick & Martin L. Weitzman, *Patterns of Behavior in Endangered Species Preservation*, 72 LAND ECON. 1 (1996).

86. *See, e.g.*, ROWELL & BILZ, *supra* note 3, at 38 ("[Pollutants'] diffuse, invisible nature makes it hard to take them seriously—we tend to forget their effects or their importance in favor of more immediate, visible phenomena."); Edella Schlager et al., *Mobile Flows, Storage, and Self-Organized Institutions for Governing Common-Pool Resources*, 70 LAND ECON. 294, 297–98 (1994) (detailing the informational challenges presented by mobile resource flows, including the difficulty of assessing declines and connecting them with harvesting behavior, and the resulting dampening of incentives to take corrective action); Graham Epstein et al., *Governing the Invisible Commons: Ozone Regulation and the Montreal Protocol*, 8 INT'L J. COMMONS 337, 347 (2014) (noting the problems presented by the mobility and invisibility of ozone and ozone-depleting substances).

defined objective that two players can completely achieve if they work together. There is no similarly stylized game for addressing the long-range effects of incremental sea rise or the chain reactions that accompany diminutions in biodiversity. People may perceive that their efforts are best directed towards problems that are compelling enough to also appear on the radars of many other people.

We need not take problems as we find them, however. The way in which issues and contributions are framed can add concreteness and immediacy to situations that might otherwise appear hopelessly vague and abstract. Charitable organizations, well aware of the power of framing, employ a variety of strategies to make problems appear concrete and their solutions achievable. The idea of "symbolically adopting" or sponsoring a particular animal, or funding some specific need (acquisition of a certain increment of habitat space, for example), can turn large and abstract problems into a series of discrete and solvable ones. The more visible these targeted efforts appear, the more confidence they will inspire in would-be contributors that others will similarly contribute.

A compelling image can help supply this type of visibility. For example, a recent online news feature used infrared images to show methane gas emissions—a form of pollution that is otherwise invisible to the naked eye.[87] Vivid manifestations of problems that are otherwise hard to access visually can also attract attention and mobilize support for solutions. The 2010 Deepwater Horizon oil spill, a massive leak in a BP-operated well 5,000 feet underwater, became urgently real to many people only after BP released an underwater video feed showing the leak gushing forth in real time. As Barack Obama explains, "Suddenly people around the world could see the oil pulsing in thick columns from the surrounding wreckage."[88]

Interestingly, the high degree of connectivity among resources—their very indivisibility—often works in favor of approaches that focus on their most highly salient features. A keystone species, for example, can serve as a bellwether for how a larger ecosystem is doing as well as a visceral representation of the stakes involved.[89] A simple, periodic measure of some visible attribute—the measured

---

87. *See* Jonah M. Kessel and Hiroko Tabuchi, *It's a Vast, Invisible Climate Menace. We Made It Visible*, N.Y. TIMES (Dec. 12, 2019) https://www.nytimes.com/interactive/2019/12/12/climate/texas-methane-super-emitters.html.

88. BARACK OBAMA, A PROMISED LAND 568 (2020).

89. *See* SALA, *supra* note 55, at 81 (citing Robert T. Paine for the idea of a "keystone species" which "has an effect on the entire ecosystem" that "is disproportionately greater than its abundance.").

clarity of Lake Tahoe, for example[90]—can stand in for tomes of detailed data about how development, runoff, and micro-organisms relate to each other. Having concrete, solvable problems stand in for larger and more abstract ones has another advantage: it enables people to signal their willingness to cooperate in the larger enterprise.[91] In short, we should look for ways to use the visible to leverage the invisible.

In the climate change context, for example, researchers have noted the potential value of focusing policy attention on "co-emissions"—ambient air pollution that accompanies carbon dioxide emissions but that has localized, near-term health effects.[92] Building mitigation efforts around these more tangible and immediate impacts can help make headway on the larger and more abstract problem of carbon emissions as well. Rhett Larson suggests another interesting concretization move: shifting the focus of environmental discourse from climate change to water security.[93] The two are related, but the latter concretely affects people's lives in ways that tend to be more visible and immediate.[94] Coordinating to address water issues that will have a direct impact on people's lives today can both further larger sustainability goals and provide a workable platform for coordinating toward larger efforts.

Yet even water may prove an insufficiently visible resource in some contexts. Interestingly, droughts and water shortages may be more visible in places that generally have ample surface water supplies, as Kate Pride Brown points out, because it is possible to actually observe changes in water levels.[95] She notes that people in Atlanta are better able to "see" water scarcity than people in a desert environment like Phoenix that relies on groundwater that is out of sight—making its scarcity invisible. Here too, conscious

---

90. Lake clarity is measured annually by lowering a white Secchi disc into the lake to determine the depth at which it remains visible. U.C. Davis, Tahoe Environmental Research Center, *Tahoe: State of the Lake 2020*, (2020), https://tahoe.ucdavis.edu/sites/g/files/dgvnsk4286/files/inline-files/2020_SOTL_Complete.pdf.

91. *See* SCHELLING, *supra* note 46, at 112 (explaining how a focal point may be "a small piece of the game that comes to symbolize the game itself, setting a pattern of expectations that extends beyond the substance of the point involved"). Similarly, a visible practice can serve as a signal of compliance with related but less visible norms, potentially spurring broader compliance with even the less visible norms. *See* McAdams, *supra* note 67, at 415 n.259 ("If a visible test reliably predicts compliance with a norm for which violations are more difficult to detect, and the latter norm benefits the group, then the group may be better off having the former norm.").

92. *See* Drew Shindell et al., *Quantified, Localized Health Benefits of Accelerated Carbon Dioxide Emissions Reductions*, 8 NATURE CLIMATE CHANGE 291 (2018). I thank Hajin Kim for this example.

93. LARSON, *supra* note 82, at 11–29.

94. *See id.*

95. Brown, *supra* note 3.

efforts at improving visibility may become important. For example, San Antonio has been able to consciously raise the visibility of its groundwater supply by including the Edwards aquifer level in daily weather reports.[96] This example connects to a second approach to problems of visibility: finding ways to provide observable feedback about the changing state of a resource system.

B. Feedback

Solving collective action problems requires perceiving causal connections between individual decisions and the results that play out in the world. In stylized games or simple physical interactions, players receive immediate, tangible feedback about the effects of their decisions.[97] But in many resource settings, these connections are opaque or attenuated.

Extreme forms of attenuation between acts and outcomes prevail in many environmental contexts. As Rowell and Bilz explain, "[i]n a literal and figurative sense, . . . it is impossible for individuals to 'see' the impacts of their climate behaviors on the global climate."[98] Globalization contributes to what Richard Lazarus has called "a cognitive severance of environmental cause and effect."[99] Those making decisions with environmental impacts frequently do not have to live with, or in some cases even know about, the negative effects of their actions. As Lazarus explains, "American consumers . . . could not readily perceive the environmental impact of their purchasing decisions, as the impact on the world environment was effectively masked by distance."[100] In addition to being spatially distant and causally attenuated, environmental impacts may be dispersed in ways that make them hard to track, as in the case of the passenger pigeon.[101]

When feedback comes too slowly, coordination can fail dramatically, especially where indivisible goods are concerned. Schelling illustrates the effects of lagged feedback with the example of a sightseeing boat that encounters a group of porpoises.[102] The passengers all rush to one railing to view the porpoises, which soon causes the ship to tilt dangerously to one side. Fearing the boat will

---

96. *See id.* at 230–31.

97. *See, e.g.,* MCADAMS, *supra* note 80, at 5–6 (explaining how the center line on a road "gives immediate feedback on far it is safe to venture in that direction").

98. ROWELL & BILZ, *supra* note 3, at 232.

99. LAZARUS, *supra* note 24, at 213.

100. *Id.*

101. *See supra* notes 25–26 and accompanying text.

102. SCHELLING, *supra* note 61, at 85.

capsize, all of the passengers rush to the opposite railing. But their initial relief—the deck is leveling out!—turns quickly to terror when they understand that the ship is now tilting even more violently (due to momentum) in the opposite direction.[103] Capsizing is an all-or-nothing event that everyone in the boat has an interest in avoiding, but their concerted action may actually bring it about.

As this example suggests, if we wait for observable feedback from the physical world about the aggregate effects of our individual choices, it may be too late to salvage the situation. If we can help people see what is happening sooner, and how it connects to individual choices, it becomes easier to avert disaster. Even a simple metric—the daily information about aquifer levels mentioned above, for example—can help people recognize shortages and calibrate their conservation efforts accordingly. In one influential study, the ability to see resource units declining in a simulated replenishing resource game helped move participants closer to an optimal harvesting strategy.[104]

Some forms of feedback enable people to monitor the impact of their own choices, such as data about household energy usage and how it compares to that of one's neighbors.[105] Because people tend to view their own acts through a self-biased lens, even those who mean to act fairly may unwittingly take more than their share.[106] Left to guess about how one's behavior measures up to that of others, people tend to mentally amplify their own positive contributions or minimize their negative impacts. Objective data about how one's choices measure up can act like a mirror to correct misimpressions about conduct and encourage better choices.[107] Feedback can even be built into the resource environment itself, whether through resource units that are segmented in some way

---

103. *Id.*

104. Cass & Edney, *supra* note 1.

105. *See, e.g.,* Ian Ayres et al., *Evidence from Two Large Field Experiments that Peer Comparison Feedback Can Reduce Residential Energy Usage*, 29 J.L. ECON. & ORG. 992 (2013); Hunt Allcott, *Social Norms and Energy Conservation*, 95 J. PUB. ECON. 1082, 1087, 1090–91 (2011) (finding modest average reductions in energy conservation through a system of providing feedback about how a household's usage compared to its neighbors, with significant heterogeneity, and with decay over time).

106. *See, e.g.,* Linda Babcock et al., *Biased Judgments of Fairness in Bargaining*, 85 AM. ECON. REV. 1337 (1995) (examining self-serving evaluations of fairness in the settlement context); Kimberly A. Wade-Benzoni et al., *Egocentric Interpretations of Fairness in Asymmetric, Environmental Social Dilemmas: Explaining Harvesting Behavior and the Role of Communication* 67 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 111 (1996) (finding egocentric biases in a simulated resource dilemma); Thompson, *supra* note 1, at 260.

107. *See* Gregory Mitchell, *Libertarian Paternalism Is an Oxymoron*, 99 NW. U. L. REV. 1245, 1257–58 & n.46 (2005) (citing studies on the effects that actual mirrors have on behavior).

or standardized harvesting equipment (a particular type of net, for example) that facilitates metering and self-monitoring.[108]

Making problems and their connections to human decisions more visible and salient does not always result in a cooperative outcome, however. In some contexts, understanding the game more clearly might make people behave even more selfishly (so as to get more of the resource before things collapse altogether). But, as we have seen, it can actually serve one's narrow self-interest to act cooperatively in contexts involving indivisible goods—although this depends crucially on what others will do. This brings us to a third approach to enhancing visibility: constructing focal points that enable people to more accurately predict the strategies others will adopt.

C. Focal Points

Focal points can help people coordinate their responses to achieve indivisible goals.[109] Consider a pure coordination game: deciding which side of the road to drive on.[110] No one needs to appeal to legal enforcement or even shared norms to make people cooperate by sticking to the appropriate side of the road; self-interest can do the job quite nicely. Getting everyone to coordinate in this manner creates an indivisible good of safe travel, and it is in everyone's interest to contribute to providing it. All that is necessary is a focal point that enables everyone to coordinate their actions.[111] The law—even without enforcement—can serve as that focal point.[112] So too could any highly visible signal, sign, or feature of the environment.[113]

A simple signal or announced rule is sufficient in the driving setting because the terms of the game are clear: the stakes are high, everyone's cooperation is essential, no one has anything to gain by defecting (or threatening to), and the effects of noncooperation are straightforward and evident to all. In other words, the problem, its structure, and its basic solution (choose a side) are already visible, and all that is needed is some basis for predicting what others will do. A clear, shared focal point provides that basis.

---

108. *See* Lee Anne Fennell, *Slicing Spontaneity*, 100 IOWA L. REV. 2365, 2369–71 (2015).

109. Thomas Schelling famously developed the idea of focal points. *See* SCHELLING, *supra* note 46, at 53–118.

110. *See, e.g.*, MCADAMS, *supra* note 80, at 22–23 (discussing this "classic example").

111. *See id.*

112 *Id.*

113. *See, e.g., id.* at 23–26 (describing how a visible "Bystander" with no formal authority can successfully direct traffic in an intersection); FENNELL, *supra* note 6, at 60–61 (discussing how physical segmentation can serve as a focal point).

As the "focal" metaphor suggests, these points of reference must be visible and salient to the participants in a given collective action game. They need not be announced in advance if shared knowledge or other clues can make a certain reference point stand out within a particular community. Thomas Schelling famously posed the problem of when and where to meet in New York City on a given day if there was no chance to coordinate: the most popular response was Grand Central Station at noon.[114] Some feature of the landscape that stands out can help people to match their strategies, even when their interests are at least partially in conflict. For this reason certain solutions like splitting things 50-50 can stand out and enable deal-making by resisting small shifts in either direction that would unravel consensus.[115]

Similarly, a focal solution can emerge organically out of a situation involving shared resources if there is an obvious basis for making an allocation. For example, ten friends who meet regularly and share a plate of twenty shrimp may naturally fixate on the solution of eating two shrimp per person (a choice made easier by the readily divisible number of shrimp, the discreteness of the shrimp units, and the tails that serve as reminders of one's consumption tally).[116] This solution is by no means guaranteed: the situation may instead devolve into a free-for-all.[117] But the prospects for cooperation get a boost when players can quickly identify an easy-to-implement strategy that everyone can observe as it unfolds. Not only can participants readily see what strategy others are pursuing, they can also keep tabs on how their own consumption compares.

Some visible actions can serve as proof of investments made toward a cooperative strategy. Imagine, for example, that a particular piece of clothing or equipment was essential to hunting stag, so that wearing or carrying that item would credibly communicate to others that one was planning to hunt stag rather than chase rabbits. Here it becomes interesting to consider what kinds of cooperative strategies are visible to others or can be made so with the right framing devices.[118] Consider the push to make

---

114. SCHELLING, *supra* note 46, at 55.

115. *See id.* at 71–72.

116. *See* LEWIS, *supra* note 37, at 96; FENNELL, *supra* note 6, at 54.

117. *See* LEWIS, *supra* note 37, at 96 (noting that the shrimp situation has two stable solutions: a "social contract" or a "state of nature" in which participants grab all they can as quickly as they can).

118. *See, e.g.,* Daphna Lewinsohn-Zamir, *The Conservation Game*, 20 HARV. J. OF L. & PUB. POL'Y 733, 756–57 (1997) (discussing the importance of visibility in promoting cooperation and observing that certain actions with respect to historic preservation, like demolishing a building, are highly visible).

brown lawns a source of pride during a drought—a strategy that the City of Santa Barbara pursued some years ago.[119] One's brown lawn evinced cooperation and elicited more cooperation from others. By making the brown lawn trendy, social norms and pressures could push in a conservation direction.[120]

Contrast this situation with a sudden water shortage at Stanford that led the campus to call for students to cease showering for roughly three days.[121] Unlike the brown lawn, which is highly visible and public, showering is conducted in private and is not observable to others. A study of this situation found systematic misperceptions about what others were doing. For example, students who showered during the water crisis tended to believe that others were showering to a greater extent than did students who did not shower.[122] It would have been interesting to see whether some visible marker (an ink stamp on the forearm that would readily wash off during showering, perhaps, or a wristband that would disintegrate with prolonged contact with water) would have made a difference in behavior by correcting beliefs about the behavior of others.

Where the visibility of a practice is central to solving a resource dilemma, invisible cooperation can be unhelpful or even counterproductive. For example, some homeowners have resorted to painting their lawns green during droughts.[123] This enables those who are actually pursuing the conservation strategy to enjoy the aesthetic benefits of failing to do so, but it masks the prevalence of cooperation. It likewise provides protective cover for non-cooperators—shaming people for having green lawns may misfire

---

119. *See* Jeremy Chow, *Gold Is the New Green: Thinking Environmental Shame in Drought Times*, 6 RESILIENCE 1 (2018).

120. Scholars have recognized the role of visibility in promoting the spread of social norms. *See, e.g.,* Maria Knight Lapinski & Rajiv N. Rimal, *An Explication of Social Norms,* 15 COMMUNICATION THEORY 127, 141–43 (2005); Patrice Wylly, *Evaluating the Costs of Technology Neutrality in Light of the Importance of Social Network Influences and Bandwagon Effects for Innovation Diffusion*, 23 N.Y.U. ENVTL. L.J. 298, 341–49 (2015); Jed S. Ela, *Law and Norms in Collective Action: Maximizing Social Influence to Minimize Carbon Emissions*, 27 UCLA J. ENVTL. L. & POL'Y 93, 123–43 (2009); McAdams, *supra* note 67, at 361 (describing how the "risk of detection" contributes to the development of norms). *But see* Wokje Abrahamse & Linda Steg, *Social Influence Approaches to Encourage Resource Conservation*, 23 GLOBAL ENV'T CHANGE 1773 (2013) (in a meta-analysis of social influence approaches, finding that "[a] social influence approach was no more or less effective for observable behaviours compared to behaviours that are less observable"). These findings suggest that where other forms of direct social influence are present, visibility in the form of observable behavior may not make a marginal difference.

121. *See* Monin & Norton, *supra* note 76.

122. *Id.*

123. *See* Amy Graff, *More Californians Painting Their Lawns Green*, SFGate, (May 14, 2015), https://blog.sfgate.com/stew/2015/05/14/more-californians-painting-their-dry-lawns-green/.

if some of the green lawns are really brown lawns that have been dyed. Similar points might be made about plant-based food that looks like meat, synthetics that look like fur or leather, and so on. These innovations can make it easier for people to opt for what might be regarded as the more sustainable or "cooperative" path but, by allowing cooperators to blend in with noncooperators, can also reduce the visibility of their choice in ways that may keep it from gaining ground.

More broadly, the phenomenon of "conspicuous conservation"—a counterpoint to earlier forms of "conspicuous consumption"—has received attention.[124] Bright blue recycling bins, "I Voted" stickers (and similar stickers for being vaccinated against COVID-19),[125] and distinctively shaped electric cars all can help make a particular practice visible.[126] Having a centralized source of visible information about the strategies that others are pursuing can also help spur what Robert Frank has called "behavioral contagion."[127] Frank gives the example of Google's Project Sunroof, which lets people easily see who has installed solar panels—a source of information that can both document and encourage the spread of the practice.[128]

One concern with prioritizing visibility is that it might lead people to fixate unduly on following a practice that is highly visible, to the detriment of alternative approaches that are actually more effective (or less costly and equally effective) but that operate out of sight. For example, some people might more effectively reduce their carbon footprints or their water consumption through means other than solar panels or brown lawns. One response would be to find ways to make less visible practices focal for subsets of the population that value them (for example, gardeners who find other ways to support sustainable water use practices), through information-

---

124. The concept of "conspicuous consumption" comes from THORSTEIN VEBLEN, THE THEORY OF THE LEISURE CLASS (1899). For a recent discussion, see Nestor M. Davidson, *Property and Relative Status*, 107 MICH. L. REV. 757 (2009). On "conspicuous conservation," *see*, *e.g.*, Steven E. Sexton & Alison L. Sexton, *Conspicuous Conservation: The Prius Halo and Willingness to Pay for Environmental Bona Fides*, 67 J. ENVIRON. ECON. & MGT 303 (2014); Vladas Griskevicius et al., *Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation*, 98 J. PERSONALITY & SOC. PSYCH. 392 (2010).

125. The Center for Disease Control (CDC) has released sticker designs that proclaim, "I Got My COVID-19 Vaccine!" *Communication Resources for COVID-19 Vaccines*, CDC, https://www.cdc.gov/coronavirus/2019-ncov/vaccines/resource-center.html#printable-stickers.

126. *See, e.g.,* Griskevicius et al., *supra* note 125, at 399 (observing that "the highly visible and easily identifiable Toyota Prius . . . essentially functions as a mobile, self-promoting billboard for proenvironmentalism"); Wylly, *supra* note 121, at 342 (observing that the Prius was "purposefully contrived to be visible").

127. ROBERT H. FRANK, UNDER THE INFLUENCE: PUTTING PEER PRESSURE TO WORK 156 (2020).

128. *Id.* at 156–57 (discussing Google's Project Sunroof, https://www.google.com/get/sunroof).

sharing mechanisms.[129] Although there are no doubt limits to how much can be made focal, given the limits of human attention, the takeaway is not that we should rally around whatever practices happen to be most visible now. Rather, considering how existing forms of visibility support coordination can help us more thoughtfully construct focal points.

D. Social Norms and Self Interest

Much of the scholarly discussion around visibility has focused on its capacity to activate and spread social norms.[130] As the examples above suggest, conservation norms can catch on as people observe others adopting them.[131] Despite concerns about faux signaling that does not correspond to real behavioral changes (as well as worries about being perceived to engage in such insincere behavior),[132] visibility enhancing measures can serve as an important form of norm entrepreneurship.[133] But, importantly, norms are not the only moving part in the story, when it comes to achieving indivisible goals. Narrow self-interest can also help to support cooperation even in the absence of shared norms, as we have seen already. How do these two factors combine?

Where a practice (recycling, say) is indeed backed by shared norms, people who follow the practice may receive an immediate payoff in the form of esteem from others or a sense of pride in having done the right thing.[134] This payoff helps support the cooperative move even where it is not likely to be pivotal to achieving a lumpy shared goal (such as preserving a species). Put in terms of our stylized games, it is as if hunting stag becomes inherently more rewarding as an activity than chasing rabbits (whether or not any stag are brought down), or as if one earns honor in a game of Chicken from swerving rather than driving straight. In other words,

---

129. I thank Richard McAdams for conversations on this point.

130. *See supra* note 121 and accompanying text. *See also* Gregg Sparkman and Gregory M. Walton, *Dynamic Norms Promote Sustainable Behavior, Even if It Is Counternormative*, 28 PSYCH. SCI. 1663, 1673 (2017) (observing that a changing trend can push people to adopt practices (like eating less meat) that diverge from current prevailing practices "[i]f this change is visible, appears willful, reflects the importance of the issue, and is taken as a sign of what is to come").

131. Visibility can also activate existing norms by enabling self-monitoring that makes one's own acts clearer. *See supra* note 107 and accompanying text.

132. *See, e.g.,* Jonathan Z. Berman, *The Braggart's Dilemma: On the Social Rewards and Penalties of Advertising Prosocial Behavior*, 52 J. MKTG. RES. 90 (2015).

133. *See* Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 929 (1996).

134. *See, e.g.,* McAdams, *supra* note 76, at 380–81; *cf.* ULLMANN-MARGALIT, *supra* note 36, at 37 (describing how factors like esteem and dishonor alter payoffs for soldiers confronting a strategic dilemma).

it changes the payoffs of the cooperative strategy even in the event the other person does not also cooperate. In this way, widely shared norms can promote *unconditional* cooperation within a particular interaction.[135]

Making contributory efforts feel independently worthwhile as a matter of principle thus offers a way to square small concrete steps with large indivisible goals. In the context of voting, the notion of doing one's civic duty for internally compelling reasons helps to overcome the sense that it is irrational to bother when one's chance of making a difference is so remote.[136] Benjamin Hale has recommended a similar approach in the climate change context: by individually taking steps that are deemed worthwhile for their own sake, people may be able to collectively stave off some of the worst outcomes.[137] Indivisibilities in social norms themselves—the fact that they are generally adopted in "lumps" rather than picked up and discarded situation by situation—can allow small visible acts to stand in for larger commitments.[138]

The other channel through which visible practices work to promote cooperation relies not on shared norms but rather on enabling people to better observe or predict whether other players are choosing the cooperative strategy. Such insights provide no traction in a Prisoner's Dilemma game because one's best choice (under the strict assumptions of the game's payoffs, and assuming no repeat play) does not depend on what others do; defection is always best.[139] But in differently structured games like the Stag Hunt or Chicken, one's best strategy (on a purely rational calculus) depends on what the other players are going to do. In those game structures, a better payoff from cooperation arises not unconditionally (as it does in the case of norm-following) but rather conditionally, based on how one's own choices combine with those of others.[140]

Where an indivisible good is involved, being able to see others' strategies can avoid disaster, but it can also help some parties take advantage of others to reap larger rewards. Fearing being suckered,

135. This cooperation remains contingent on norms being widely enough shared and adopted in the relevant society to generate payoffs that favor cooperation regardless of the specific moves of the other player.

136. *See* Hale, *supra* note 70, at 381, 386 (discussing the "paradox of voting" identified in ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (1957)).

137. *Id.* at 386.

138. *See supra* note 91 and accompanying text. For discussion of drawbacks of lumpiness in norms, see Adrian Vermeule, *The Invisible Hand in Legal and Political Theory*, 96 VA. L. REV. 1417, 1431–38 (2010).

139. *See supra* notes 30–31 and accompanying text.

140. *See supra* Part II.B.

parties may miscalculate and wind up contributing to a disaster. Norms that make the cooperative action independently attractive (or that allow for a form of "punishment" of defectors through shaming or withholding esteem) can therefore backstop self-interest in ways that support cooperation.

E. Putting it All Together

Concretization, feedback, focal points, and norms can all leverage visibility to produce indivisible goods and avoid indivisible bads. But they work best in combination. The core challenge of many large, intractable problems is to get people to see how their many small interacting decisions can change the world. This requires two kinds of vision: seeing the structure of problems clearly, and seeing how one's own choices can combine with those of others to solve them. Developing these ways of seeing is not costless, however. Solving resource dilemmas on the ground requires solving a second-order collective action problem: building platforms and technologies that can enable people to view problems concretely and coordinate strategies. What is required is widespread investment in *configuration entrepreneurship*—the art and science of putting resources and cooperation together in their most valuable combinations.[141]

Modern technology offers ample tools for innovating in the configuration space, as many existing and emerging models attest—from Airbnb to Zipcar, from Groupon to Kickstarter. The same moving parts can be used to make resource problems concrete, offer focal solutions, and provide real-time feedback on progress. Mechanisms for dividing up contributions to common goals into slices that people are willing and able to provide can combat the sense that one's own choices are too insubstantial to matter by making the power of aggregation visible.

Consider the emerging consensus that one of the most useful measures that ordinary people can take against climate change involves a shift in dietary habits.[142] Plant-based diets dramatically reduce greenhouse gas emissions. Yet going fully vegetarian or vegan, framed as an all-or-nothing proposition, may be too large a step for many meat eaters. Nonetheless, a much smaller dietary shift could have a tremendous cumulative effect when multiplied by hundreds of thousands of people. In this vein, some have advocated

---

141. *See* FENNELL, *supra* note 6, at 2.

142. *See, e.g.,* Lingxi Chenyang, *Is Meat the New Tobacco? Regulating Food Demand in the Age of Climate Change*, 40 ENVT'L L. REPORTER 10344–45.

part-time vegetarianism or other forms of "flexitarian" diets.[143] But these calls would be more successful if people could actually see how their small contributions combine with those of others to produce concrete change.[144]

Imagine, following an idea proposed by Matt Johnson, a "build a vegan" site on which people could commit to giving up meat for some portion of a day or week in order to assemble together the dietary equivalent of a person shifting entirely to a meatless diet.[145] As the number of plant-based virtual people grew, graphics might show how these gains translate into influencing real metrics, like ice cap melt or sea level rise, with impacts on people's lives or on the survival of high-profile animals like polar bears. Once people can see how changes translate into results (even through a virtual representation) such a site could become focal. Many variations on these ideas are of course possible. The central point is that enhancing visibility to support cooperation is within our reach. The key is developing tools that help people see what they can do.

V. CONCLUSION

Resource dilemmas often seem intractable. Although the stakes are high, environmental impacts, and their connection to innumerable small, interacting, individual decisions, can be hard to pin down. It is easy to assume that tragedy will prevail, at least in contexts where coercion is unlikely to be feasible or availing. But one underappreciated factor—the indivisibility of many of the relevant goods and bads—dramatically changes the game from one in which everyone is always better off defecting to one in which winning strategies depend crucially on expectations about the behavior of others.

By no means is cooperation assured: things can go very badly indeed where cliff effects and all-or-nothing dynamics are involved. Yet the potential exists for people to coordinate their decisions, avoid tragedy, and achieve sustainable results. Visibility, I argue, is

---

143. *See, e.g.,* SALA, *supra* note 55, at 214–15 (noting the environmental advantages of "[a] 'flexitarian' diet based mostly on plants, with occasional meat consumption"); Ian Ayres, *Vegetarianism as a Sometimes Thing*, FREAKONOMICS, (June 19, 2009), http://freakonomics.com/2009/06/19/vegetarianism-as-a-sometimes-thing/ (presenting a one-day-a-week-vegetarian idea suggested by Matt Johnson).

144. *Cf.* Sparkman & Walton, *supra* note 131 (investigating how "dynamic norms"—the knowledge of a growing trend, even if not yet a dominant practice—might support reduced meat consumption).

145. Johnson explained his idea this way: "[S]ay a group of 7 people signed a contract saying that each of them would go meatless on an assigned day each week. Thus, within the group each member could eat meat 6 days a week, but there would be one vegetarian at all times." Ayres, *supra* note 144 (quoting Johnson).

a key lever for making cooperation work under conditions of indivisibility. And the fact that both indivisibility and visibility can contribute to cooperative solutions means that we can actively work to frame resource dilemmas around these features.

In a sense, visibility is a metaphor for perception and understanding—seeing the problem as a problem, perceiving its structure, and understanding the connection between individual decisions and outcomes. But visibility is also literal. Resource problems that provide visceral feedback can be used to coordinate action. Harvesting methods or conservation practices that enable observation and monitoring can assist in generating and sustaining cooperation. Focal points, which often rely on visible features, can give rise to shared expectations about actions.

For all its power, visibility is not a panacea. It can even backfire in some contexts by allowing people to see opportunities to gain from noncooperative behavior. But recognizing where and how it works can shed new light on how to approach our most important—and most indivisible—problems.