ON ENVIRONMENTAL ENFORCEMENT AND COMPLIANCE: A REPLY TO PROFESSOR CRAWFORD'S REVIEW OF *MAKING LAW MATTER: ENVIRONMENTAL PROTECTION AND LEGAL INSTITUTIONS IN BRAZIL*

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INTRODUCTION

Over the past three decades, laws and institutions dedicated to environmental protection have been established in most countries throughout the world. Over one hundred countries, for example, have environmental impact assessment laws, requiring that some study of environmental impacts be conducted before proposed projects receive governmental approval.[1] Most countries have environmental laws that restrict air and water pollution as well as natural resource degradation. Almost all countries have created environmental regulatory agencies, and often subnational jurisdictions also have environmental laws and agencies.[2]

In the context of industrialized countries, particularly the United States and several European countries, a rigorous body of scholarship on regulatory compliance and enforcement of environmental laws has been produced.[3] However, we know very little about how environmental laws and institutions interact with society in most developing countries. What are the politics of environ-

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1. ANNIE DONELLY, BARRY DALAL-CLAYTON & ROSS HUGHES, A DIRECTORY OF IMPACT ASSESSMENT GUIDELINES 3-4 (2d ed. 1998), *available at* http://www.iied.org/pubs/pdfs/7785IIED.pdf.

2. Ruth Greenspan Bell, *Culture and History Count: Choosing Environmental Tools to Fit Available Institutions and Experiences*, 38 IND. L. REV 637, 639 (2005).

3. A few of the important works in this literature include IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE (1992); CARY COGLIANESE & JENNIFER NASH, LEVERAGING THE PRIVATE SECTOR: MANAGEMENT-BASED STRATEGIES FOR IMPROVING ENVIRONMENTAL PERFORMANCE (2006); NEIL GUNNINGHAM, ROBERT A. KAGAN & DOROTHY THORNTON, SHADES OF GREEN: REGULATION, BUSINESS, ENVIRONMENT (2003); KEITH HAWKINS, LAW AS LAST RESORT: PROSECUTION DECISION-MAKING IN A REGULATORY AGENCY (2002); and BRIDGET HUTTER, COMPLIANCE: REGULATION AND ENVIRONMENT (1997).

mental lawmaking? What are the characteristics of the institutions charged with implementing environmental laws? How do these laws and institutions affect environmentally relevant behavior? Such basic questions have been little explored in countries as significant to the world's environment as Indonesia, Kenya, and Brazil.[4]

My book, *Making Law Matter: Environmental Protection and Legal Institutions in Brazil*, was written to contribute to our knowledge of environmental laws and institutions in developing countries.[5] It takes as its subject of inquiry the environmental enforcement work of Brazilian prosecutors, with a focus on how this work affects the relevant behavior of polluters, environmental agencies, and citizen groups. It sketches the characteristics of what I call "prosecutorial enforcement," a mode of enforcement that emerged in the Brazilian context in which legal actors play a central role. My book finds that prosecutorial enforcement is in many ways a success story—it has enhanced the effectiveness of environmental law in Brazil, and a similar approach may be useful in other national jurisdictions.[6]

I am complimented and honored that Professor Colin Crawford saw fit to carefully read and comment on my book.[7] In this reply, I first situate my book's focus on the effectiveness of environmental enforcement within the sociolegal literature on regulatory enforcement and compliance. In doing so, I discuss my empirical findings regarding both how prosecutorial enforcement succeeds and how prosecutorial enforcement fails. In the second part of the Article, I address other aspects of Professor Crawford's book review by suggesting a research agenda for the study of environmental law and legal institutions in developing countries. I call for further research on the effectiveness of enforcement, which is the central concern of my book, as well as on environmental justice, environ-

4. Though still small, the body of literature is growing. Important books include DARA O'ROURKE, COMMUNITY-DRIVEN REGULATION: BALANCING DEVELOPMENT AND THE ENVIRONMENT IN VIETNAM (2004); and KATHRYN HOCHSTETLER & MARGARET E. KECK, GREENING BRAZIL: ENVIRONMENTAL ACTIVISM IN STATE AND SOCIETY (2007).

5. LESLEY K. MCALLISTER, MAKING LAW MATTER: ENVIRONMENTAL PROTECTION AND LEGAL INSTITUTIONS IN BRAZIL (2008).

6. For example, the Philippine government has established "green courts" and decided to deputize a set of environment agency lawyers to act as Department of Justice prosecutors to litigate civil and criminal environmental cases. Jason Gutierrez, "Philippine Prosecutors Undergo Training to Enforce Laws of Environmental Courts," 31 Int'l Env't Rep. (BNA) No. 8, at 360 (Apr. 16, 2008).

7. Colin Crawford, *Defending Public Prosecutors and Defining Brazil's Environmental "Public Interest": A Review of Lesley McAllister's* Making Law Matter: Environmental Protection and Legal Institutions in Brazil, 40 GEO. WASH. INT'L L. REV. 619 (2009).

mental movement organizations, and comparative law, areas of inquiry usefully highlighted in Professor Crawford's remarks.

Prosecutorial Enforcement in Brazil

Among Latin American countries, Brazil has been the most innovative in building environmental enforcement capacity. In the mid-1980s, Brazilian law empowered public prosecutors to file civil and criminal enforcement lawsuits for environmental harm, and prosecutors throughout the country became active in this area. As I describe in my book, this represents a unique experiment in supplementing the enforcement work of environmental agencies that have often been weak in terms of their resources and their power to coerce compliance.[8]

A. *The Effectiveness Question*

My book analyzes the effectiveness of prosecutorial enforcement in Brazil. Where enforcement is effective, it contributes towards behavior changes that increase compliance.[9] While prosecutors in the United States and other countries may play an important role in environmental enforcement, they are not usually the primary actors. In the United States, executive branch regulatory agencies conduct most enforcement through administrative processes.[10] When agencies determine that civil or criminal enforcement actions are appropriate, they refer cases to prosecutors who then act on the agency's behalf in the courts.[11] In many countries, the involvement of prosecutors and courts in environmental enforcement is rare.[12]

In Brazil, however, prosecutors play a central role in enforcing environmental laws, often taking the lead and pursuing cases independently from environmental agencies. As I describe in my book, and as Professor Crawford faithfully relates in his review, the prose-

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8. McAllister, *supra* note 5, at 20.

9. *Cf.* Neil Gunningham & Peter Grabowsky, Smart Regulation: Designing Environmental Policy 26 (1998) (identifying effectiveness as one of the criteria for a successful regulatory strategy, and defining it as "contributing to improving the environment").

10. *See, e.g.*, Eugene Bardach & Robert A. Kagan, Going By the Book 30-31 (1982).

11. *See* Joel A. Mintz, Enforcement at the EPA: High Stakes and Hard Choices 28 (1988).

12. *Cf.* Robert A. Kagan & Lee Axelrad, Regulatory Encounters: Multinational Corporations and American Adversarial Legalism 10-11 (2000) (stating that "[r]ecourse to courts and to formal legal conflict is infrequent.").

cutors of the Brazilian Ministério Público[13] were empowered in the 1980s by statutory law and the Brazilian Constitution of 1988 to defend the "diffuse and collective interests of society."[14] The institution actively lobbied to gain this new role during the country's transition from military rule to democracy by "align[ing] itself with societal interests" in the sense that it proclaimed itself to be a capable representative of society's diffuse and collective interests in a political environment that demanded more forms of protection for such interests.[15]

As one of those "diffuse and collective interests," environmental protection became a practice area of prosecutorial institutions at the state and federal levels.[16] The Public Civil Action Law of 1985 authorized prosecutors to file public civil actions (*ações civis públicos*) in court seeking injunctive relief and damages against individuals or entities that harm environmental interests. To gather evidence on actual or potential environmental harm that may form the basis of a public civil action, prosecutors were empowered to conduct civil investigations (*inquéritos civis*). Prosecutors may also file criminal charges for environmental crimes as set forth in the Environmental Crimes Act of 1998.

With about ten thousand state and federal prosecutors so empowered in Brazil, the volume of their environmental enforcement actions became significant.[17] In the state of São Paulo alone, state prosecutors opened almost 37,000 civil investigations and filed over 4,000 public civil actions regarding the environment between 1984 and 2004.[18] Subjects of investigation and legal action ranged widely from deforestation to industrial pollution.[19]

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13. Ministério Público is literally translated as the Public Ministry, but is more usefully translated as the "public prosecution service," or simply the "procuracy."

14. *See* McAllister, *supra* note 5, at 199-200 n.5 ("In Brazilian law, 'diffuse interests' are interests held by an indeterminable number of people or society as a whole, while 'collective interests' refer to those of an identifiable group of people. The term 'public interests' has a different connotation in Brazil than in the United States, referring to the interests of the state rather than society. In this work, the term 'public interests' (and sometimes, 'societal interests') is used to denote both diffuse and collective interests.") As in the book, in this article I also use "public interests" and "societal interests" as shorthand for the Brazilian legal-technical term "diffuse and collective interests."

15. *Id.* at 75.

16. Other public interest areas in which the Brazilian procuracy became active include anticorruption, children's rights, worker health and safety, consumer rights, and disability rights. *See* Lesley K. McAllister, *Revisiting a "Promising Institution": Public Law Litigation in the Civil Law World*, 24 Ga. St. U. L. Rev. 693, 726-727; *see also* McAllister, *supra* note 5, at 7.

17. McAllister, *supra* note 5, at 5.

18. *Id.* at 99, tbl.4.1.

19. *Id.* at 100-01.

In the state of Pará, lawsuits filed by federal and state prosecutors halted the construction of an interstate shipping canal and a major hydroelectric plant, both of which were priority infrastructure projects for the government.[20] The caseload of federal prosecutors in Pará is indicative of the priority placed on environmental prosecution: in 2001, over half of civil cases and about one-third of criminal cases concerned environmental harms.[21] In both states, many cases investigated by prosecutors led to "conduct adjustment agreements" (*termos de ajustamento de conduta*) in which parties responsible for environmental harm agreed to take certain actions to change their behavior and remedy the harm.[22]

What implications does the Brazilian procuracy's involvement have for the effectiveness of environmental enforcement and environmental law—does it enhance the degree to which environmental law achieves its goals? More specifically, when prosecutors take the central role in environmental enforcement in this way, what impact does it have on compliance in the regulated community? What impact does it have on the enforcement capacity of executive-branch environmental agencies themselves? How does it affect citizen involvement in the environmental enforcement process?

My book empirically analyzes these questions with the intention of making both a policy contribution and a theoretical contribution. Its practical import stems from the fact that environmental law enforcement by regulatory agencies in Brazil and many other developing countries has been widely viewed as inadequate. If prosecutorial enforcement improves the effectiveness of enforcement and environmental law generally, it may be useful as a model for other countries, particularly other countries that share political, economic, and legal-institutional characteristics. As an institution, a Ministério Público is present in almost every country where the national legal system derives from the civil law tradition—most Western European and Latin American countries as well as some African and Asian countries.[23]

The questions I pursue about the effectiveness of prosecutorial enforcement also have theoretical significance. Regrettably, Professor Crawford ignores or minimizes the central empirical and

20. *Id.* at 5.

21. *Id.*

22. *Id.* at 91.

23. JOHN HENRY MERRYMAN, THE CIVIL LAW TRADITION: AN INTRODUCTION TO THE LEGAL SYSTEMS OF WESTERN EUROPE AND LATIN AMERICA 32-33 (1985) (analyzing the origins and operation of the civil law tradition).

theoretical claims of the book, perhaps wishing my research had focused on environmental justice or social movements in Brazil rather than environmental enforcement and compliance. Remarking on my assertion that prosecutorial collaboration with agency enforcement officials strengthens environmental enforcement in Brazil, for example, Professor Crawford states, "The claim is unsurprising and virtually self-evident, a logical and predictable recipe for strong administrative and legal enforcement in any context."[24]

In this statement, Professor Crawford reveals a lack of attention to the most well-developed social science literature concerning environmental regulation, the literature on legalism.[25] While it may seem self-evident to Professor Crawford that the involvement of a strong legal actor improves environmental enforcement, much of the literature in this area cuts in the other direction and espouses the view that legal institutions are often problematic actors in environmental implementation and enforcement.[26] As characterized by Professor Kagan, the United States is a locus of "adversarial legalism," wherein competing interests readily invoke legal rights, duties, and procedural requirements, backed by recourse to formal legal enforcement, strong legal penalties, litigation and/or judicial review.[27] While adversarial legalism has "pushed private enterprise to take environmental problems seriously," it is also "an extraordinarily costly, divisive, and often ineffective way of making and implementing public policy."[28] Like my book, the literature on legalism focuses on the relationship between legal actors and regulatory actors and the implications that this relationship has for the effectiveness of law.

One important insight of this literature has been the delineation of two enforcement styles: the cooperative style and the legalistic style. As I describe in my book, "[t]he cooperative style . . . relies primarily on techniques of education, advice, persuasion and negotiation."[29] Regulators use communication and compromise rather than punishment to move offenders toward regulatory compliance. The legalistic style is based on "coercion and compulsion" and is

24. *See* Crawford, *supra* note 7, at 633.

25. *See generally,* McAllister, *supra* note 5, at 13-16.

26. *See, e.g.*, Robert A. Kagan, Adversarial Legalism: The American Way of Law 224-27 (2001); David Vogel, National Styles of Regulation: Environmental Policy in Great Britain and the United States (1986).

27. Kagan & Axelrad, *supra* note 12, at 8-9.

28. *Id.* at 13.

29. McAllister, *supra* note 5, at 14.

concerned primarily with "the application of punishment for breaking a rule and doing harm."[30] Regulators employ a legalistic style when they are rule-bound in their interpretation of the law and threatening in their interactions with regulated parties.[31] Professors Ayres and Braithwaite made a key contribution to this literature in setting forth the concept of an "enforcement pyramid" to theorize how agencies may use both cooperative and legalistic approaches to respond in a calibrated way to the behavior of regulated entities.[32] The bulk of the agency's enforcement activities, constituting the large base of the regulatory pyramid, may be conducted through cooperative approaches such as education and persuasion. Depending on the regulated entity's response, the agency can escalate up the pyramid toward more legalistic approaches, including civil and criminal penalties, to achieve compliance. Such "flexible enforcement" is an "ideal" to which a regulatory agency can aspire.[33]

Brazil's prosecutorial mode of enforcement presents an interesting theoretical challenge to this literature. In Brazil, regulatory agencies have not embraced a legalistic approach, but the involvement of prosecutorial institutions in environmental enforcement contributes a degree of legalism—defined as control by formal legal rules and procedures—to the enforcement process.[34] Does the involvement of prosecutors and courts in environmental enforcement in Brazil lead to counterproductive outcomes wherein regulated entities are subject to inappropriately punitive sanctions, and regulatory agencies are subject to inefficient meddling by legal institutions? Or does the involvement of legal institutions contribute to the effectiveness of enforcement and environmental law?

My book brings the concepts and techniques of empirical research that have been used in the study of environmental regula-

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30. *Id.* at 14 (citing KEITH HAWKINS & JOHN M. THOMAS, ENFORCING REGULATION (1984)); *see also* BARDACH & KAGAN, *supra* note 10, at 71-77.

31. *See* Peter J. May & Soren Winter, *Reconsidering Styles of Regulatory Enforcement: Patterns in Danish Agro-environmental Inspection*, 22 LAW & POL'Y 143, 147 (2000) (isolating two dimensions of regulatory enforcement: (1) identifying violations: adherence to rules vs. discretionary judgment; and (2) responding to violations: legal coercion vs. remediation).

32. *See* AYRES & BRAITHWAITE, *supra* note 3, at 35.

33. BARDACH & KAGAN, *supra* note 10, at 152.

34. The term legalism has been defined in various ways. In my book and in this article, I define it in a broad sense, as "rule-oriented governance or decision making" or "control by formal legal rules and procedures." *See* KAGAN, *supra* note 26, at 9, 255 n.4. A narrower definition of legalism (what I call extreme legalism) refers to "rigid adherence to rules, without regard to their purpose or to the fairness of the outcome." *Id.* at 255 n.4.

tion in the United States and Europe to the study of a Latin American country. Preliminary research that I conducted in seven of Brazil's twenty-six states scattered throughout Brazil's five major regions showed that the Ministério Público was active throughout the country in environmental enforcement, albeit at different levels.[35] In each state, prosecutors discussed their role in environmental enforcement in similar ways. They explained that they were empowered to use certain legal and extralegal mechanisms to defend environmental interests. They described the types of barriers they faced in their environmental defense work. In each state, I also talked with agency officials who were similar in expressing that prosecutors were becoming active in the field, and often in expressing complaints about this new prosecutorial activity. In each state, I also talked with environmental citizen group leaders who, in most cases, said that prosecutors were helpful and responsive to them in ways that the state environmental agencies were not. The research I undertook in diverse states throughout Brazil underpins my assertion that prosecutorial enforcement can be considered a national enforcement approach.

Further research focused on two highly contrasting states, São Paulo and Pará, chosen to allow for the most empirically and theoretically interesting results given time and funding constraints. Located in Brazil's southeast, São Paulo is the industrial powerhouse of the country, and its capital São Paulo is one of the world's megacities. In addition to its urban and industrial environmental problems, São Paulo is also home to some of the last remaining remnants of Brazil's Atlantic Forest, specifically protected as

35. For a description of Brazil's five regions, see Antonio Herman Benjamin, Claudia Lima Marques & Catherine Tinker, *The Water Giant Awakens: An Overview of Water Law in Brazil*, 83 Tex. L. Rev. 2185, 2186-88. In July and August of 2000, I conducted preliminary research in the states of São Paulo and Rio de Janeiro (in the Southeastern region); Paraná and Rio Grande do Sul (in the Southern region), Pernambuco (in the Northeastern region), Pará (in the Northern region), and Mato Grosso and the federal district Brasilia (in the Central-western region). During this research period, I conducted semi-structured interviews with over seventy prosecutors, agency officials, and environmental group leaders, as well as ten researchers who had published on relevant topics. Also, in July and August of 1999, I conducted research that included interviews of 16 law-trained individuals involved in or knowledgeable about lawyering on behalf of environmental interests and agrarian reform interests in the states of São Paulo, Rio de Janeiro, and Parana. The five major regions of Brazil are the Northern region (including the state of Pará), the Central-western region (including the state of Mato Grosso), the Northeastern region (including Pernambuco), the Southeastern region (including São Paulo and Rio de Janeiro), and the Southern region (including Parana and Rio Grande do Sul).

"national patrimony" in the Brazilian Constitution of 1988.[36] Located in Northern Brazil, Pará is the second-largest and most populated Amazonian state, host to a significant degree of illegal deforestation and violent conflict over environmental resources.[37]

The state of São Paulo was an essential locus of my research—prosecutorial enforcement originated in São Paulo and then diffused throughout the country. Key actors involved in drafting the new laws and building new institutional capacity were in São Paulo, as were the most important writings from the institution's early years of environmental activity. The São Paulo Ministério Público is the largest prosecutorial institution in the country, with about one-sixth of all prosecutors.[38] Similarly, São Paulo has the strongest and largest environmental agencies with the longest history of enforcement activity.[39] Gathering essential data on the past and present activities of these São Paulo actors and institutions required the majority of my research effort. Pará was of interest as a state in which environmental institutions are much weaker but environmental problems have gained a high profile nationally and internationally. Given the smaller volume of enforcement activity in Pará, there was less to document and study.

My primary research methods were participant observation, semistructured interviews, and review of institutional files and other archival material. In addition to considering environmental enforcement cases litigated by the Ministério Público, I studied the prosecutorial institutions' day-to-day operations and caseload management, enforcement tools, and methods of responding to complaints and interacting with environmental agencies and alleged violators. I spent an equal amount of research effort focusing on the other major enforcement actor, the environmental agencies. I accompanied staff on enforcement inspections, inquired about the agency's enforcement approach, studied agency correspondence and interactions with prosecutors and courts, and collected data about their administrative enforcement activities. I complemented my research on the procuracy and the environmental agencies in each state with interviews of environmental organization representatives and other knowledgeable observers. My research tasks included careful probing during interviews, continual triangula-

36. *Cf.* Constituição Federal [C.F.] [Constitution] art. 225, § 4 (1988) (Braz.). *See generally* WARREN DEAN, WITH BROADAX AND FIREBRAND: THE DESTRUCTION OF THE BRAZILIAN ATLANTIC FOREST (1995).

37. HOCHSTETLER & KECK, *supra* note 4, at 1.

38. *See* MCALLISTER, *supra* note 5, at 76.

39. *Id.* at 26.

tion of data sources, and efforts to find quantitative or documentary confirmation of statements made by my informants. Following standard social science research practice, I assured my informants that their identities would remain confidential.

Also in the tradition of social science research, I sought to be self-conscious in my role as an academic researcher in a society and culture other than my own. As an American (or more accurately, a U.S. citizen), trained in U.S. law and social science, I implicitly engage in a process of translation in which I view and interpret my subject of study through my own cultural lens. And, as Professor Crawford observes, this is best done self-consciously. I sought to be aware of my impact on the events I observed, aware of how stories might be told differently to me because of my position, and aware of how I became part of the story I told.[40] As appropriate, I sought to retain a critical distance from the activities and views of the prosecutors and agency officials with whom I interacted.

In total, my field work encompassed about twelve months, including two summers of field work in 1999 and 2000 and primary field work from October 2001 through May 2002. Over the course of this time, I conducted close to two hundred interviews, including interviews of prosecutors, agency officials, environmental and other citizen organization representatives, environmental lawyers, business and political leaders, and reporters. Based on a doctoral dissertation, the book represents about five-years worth of sustained effort in research and writing.

B. *How Prosecutorial Enforcement Succeeds*

My book finds that the Brazilian Ministério Público has indeed been active and often successful in improving enforcement, both on its own and through compelling state and federal environmental agencies to adopt more aggressive enforcement actions. My research, however, clearly indicated that the levels of prosecutorial activity and its consequences vary from state to state. In the state of São Paulo, state prosecutors became very active in environmental enforcement, with many positive implications for compliance and the effectiveness of environmental law. In the state of Pará, the enforcement work of federal prosecutors was more significant than

40. *See, e.g.*, EARL R. BABBIE, OBSERVING OURSELVES: ESSAYS IN SOCIAL RESEARCH 95-119 (1995); HERBERT J. RUBIN & IRENE S. RUBIN, QUALITATIVE INTERVIEWING: THE ART OF HEARING DATA 31-33 (2005); Jody Miller & Barry Glassner, *The "Inside" and the "Outside": Finding Realities in Interviews*, *in* QUALITATIVE RESEARCH: THEORY, METHOD AND PRACTICE 125, 126-31 (David Silverman ed., 2004).

that of a larger number of state prosecutors both because of its greater volume and its attention to the most pressing environmental problems in the state.

I document three major ways in which the involvement of prosecutors makes environmental enforcement more effective. First, prosecutorial involvement in enforcement changed the climate of impunity that long prevailed in Brazilian environmental law.[41] Prosecutorial enforcement is a particularly communicative way of enforcing environmental laws. Prosecution is a "public act" that makes a statement: it is a "formal and newsworthy means of announcing the enforcement of the law and the defence of public interests."[42] Prosecutors wield harsh civil and criminal sanctions, they deal with many types of environmental problems, and they challenge a wide variety of actors, including powerful economic and political ones. With the involvement of prosecutors, enforcement cases against the government and large companies became more common. As a result of the Ministério Público's actions, "Brazilian society is gaining a sense that crimes committed by the 'powerful' will not be ignored."[43]

In terms of "the sorts of issues that compel prosecutorial attention,"[44] my book analyzes the composition of prosecutorial enforcement actions by type of environmental harm and attempts to discern the reasons for their emphases. In São Paulo, enforcement actions relating to illegal deforestation are most common, constituting about a third of all public civil actions between 1984 and 1997. Water quality, land use and construction, air quality, solid waste disposal, and mineral extraction actions comprised another 50% of public civil actions.[45] The emphasis on deforestation in São Paulo prosecutors' caseload is due at least partly to the work of the São Paulo Environmental Police, which documents forestry violations and automatically refers them to the Ministério Público for prosecution.[46]

In Pará, the majority of prosecutorial investigations by state environmental prosecutors involved either noise pollution or small-

41. This discussion draws heavily from Chapter 4 of McAllister, *supra* note 5, at 85-108.

42. Hawkins, *supra* note 3, at 206.

43. Maria Tereza Sadek & Rosângela Batista Cavalcanti, *The New Brazilian Public Prosecution: An Agent of Accountability*, *in* Democratic Accountability in Latin America 201, 210 (Scott Mainwaring & Christopher Velna eds., 2003).

44. Crawford, *supra* note 7, at 646.

45. McAllister, *supra* note 5, at 100.

46. *Id.*

scale mineral extraction, and the bulk of federal environmental prosecution cases involved either historical preservation or illegal logging.[47] In my book, I suggest that the Pará state procuracy's emphasis on noise pollution was indicative of an institutional incapacity to deal with more complex or contentious environmental problems.[48] I also explain that the high level of activity by Pará's federal prosecutors regarding illegal logging was enabled by a close working relationship with the federal environmental agency that referred violations it discovered to the federal prosecutors.[49]

The second prominent way in which the involvement of prosecutors makes environmental enforcement more effective is by serving as a mechanism of accountability for environmental agencies. In the prosecutorial approach to enforcement that emerged in Brazil, prosecutors have the power to oversee the work of the environmental agencies. Using their investigative instruments, prosecutors may monitor, find facts and generate evidence regarding the legality of agency decisions and actions, in particular environmental cases. Using their civil and criminal enforcement processes, they may file legal action against the agency and its officials if they have evidence of illegal behavior. The Brazilian Ministério Público was empowered by the Constitution of 1988 and other laws to become a "watchdog" of the executive branch agencies.[50]

In the state of São Paulo, the large number of prosecutors active in environmental enforcement exerts significant influence on agency activities. Each year, prosecutors send thousands of requests for information about potential environmental law violations to environmental agencies, which are obliged by law to cooperate in prosecutorial investigations.[51] In several well-publicized cases, São Paulo prosecutors have filed civil actions against state environmental agencies and private companies for allegedly failing to comply with laws requiring the preparation of an environmental impact study.[52] In Pará, federal prosecutors were highly involved

47. *See id.* at 104, 106.

48. *Id.* at 105.

49. *Id.* at 107.

50. The Brazilian Constitution of 1988, Article 129, provides that one of the Ministério Público's institutional functions is to "ensure that the government and other entities of public relevance respect constitutional rights." *See* McAllister, *supra* note 5, at 222. The Administrative Improbity Act of 1992 prohibits acts or omissions relating to corruption and other illegal behavior. *See id.* at 124-25. The Environmental Crimes Law of 1998 includes a category of "crimes against administration" for which agency officials may be prosecuted. *Id.* at 126.

51. *See id.* at 127.

52. *Id.*

in uncovering and prosecuting corruption in the state office of the federal environmental agency.[53]

While agency officials voice resentment of prosecutors, accusing them of being too rigid in their reading of the law and of interfering in the realm of proper administrative discretion, this prosecutorial activity has established a degree of legal oversight uncommon in developing countries.[54] Evidence I gathered suggests that it deters corruption within the agency and strengthens the agency's ability to gain compliance from violators as the agency is able to raise the specter that prosecutors may become involved if certain compliance actions are not taken.[55] Most agency officials who were interviewed expressed strong support for the environmental work of the Ministério Público and discussed its positive impacts on their agency.

The third way in which the involvement of prosecutors makes environmental enforcement more effective is through providing new forums for the resolution of environmental conflicts. With its extrajudicial resolution of cases through conduct adjustment agreements, the procuracy itself serves as a forum for resolving environmental disputes. Moreover, the Ministério Público has served as the primary vehicle through which environmental interests have gained access to the courts, lending significant judicial force to environmental protection laws. While a variety of other governmental and nongovernmental actors, including environmental organizations, are empowered in Brazil to file public civil actions, about 97 percent of such actions have been filed by the prosecutors of the Ministério Público.[56]

As I discuss in my book, the Ministério Público established a new role for itself in the 1980s as the "lawyer of society," the legal representative of societal interests.[57] It opened its doors to public complaints alleging harm to the public interest, including environmental interests, and developed instruments to respond to them. Environmental groups in search of legal assistance were more likely to look to the Ministério Público than to a private law-

53. *Id.* at 136.

54. *See id.* at 142-46.

55. *Id.* at 146-50 (explaining that agency officials are often able to elicit more timely compliance by reminding polluters of the Ministério Público's power to investigate and file suit).

56. *Id.* at 153. Any environmental group that has existed for at least one year can file an environmental public civil action. *Id.* at 93.

57. *Id.* at 157. On the meaning of "societal interests" and the "public interest" as I use them in my book and in this article, see *supra* text accompanying note 14.

yer. Relying on the Ministério Público lowers the costs and risks borne by nongovernmental organizations because the prosecutors do the investigative and legal work.[58] As stated by one environmental activist, "If the Ministério Público didn't exist, we wouldn't achieve a third of what we do. . . . We pressure the Ministério Público, and the Ministério Público pressures the environmental agency or goes after the problem itself—this is how stuff gets done."[59]

I make the broad claim that the Ministério Público's enforcement of environmental law has strengthened the status of environmental regulation as law, compliance with which is compelled by general norms supporting the rule of law. The Ministério Público's environmental enforcement exerts a counterweight to the "(un)rule of law" of which Brazil and other Latin American countries have often been characterized.[60] I assert that Brazil's environmental laws became more effective in changing relevant behavior because a legal institution, the procuracy, was empowered to enforce them through the courts. In the absence of legalism, environmental enforcement was more susceptible to corruption, violators were more likely to enjoy impunity, and those harmed by violations were less likely to have legal recourse. The Brazilian case shows that legalistic enforcement can enhance regulatory effectiveness when introduced into a context where regulatory authority is historically weak.

As I will describe below, there are weaknesses and counterproductive consequences of entrusting environmental law enforcement to prosecutors trained in the legalistic traditions of criminal law rather than the problem-solving traditions of regulatory agencies. Importantly, however, my research showed that the Brazilian Ministério Público resolves the large majority of its environmental cases through investigation and the threat of prosecution, using its leverage to negotiate remedial measures. Moreover, I find that the Ministério Público's work is strengthened where there are institutional forms of cooperation and coordination with other enforcement actors, particularly environmental agencies.[61] As such, the Brazilian prosecutorial enforcement approach is not entirely legalistic but resembles the ideal of "flexible enforcement" discussed by

58. *Id.* at 157.

59. *Id.* at 152.

60. *See generally* JUAN E. MÉNDEZ, GUILLERMO A. O'DONNELL & PAULO SÉRGIO DE M. S. PINHEIRO, THE (UN)RULE OF LAW AND THE UNDERPRIVILEGED IN LATIN AMERICA (1999); MCALLISTER, *supra* note 5, at 12-13.

61. MCALLISTER, *supra* note 5, at 179, 187.

Ayres and Braithwaite and others in their studies of regulatory enforcement in developed countries.[62]

C. *How Prosecutorial Enforcement Fails*

My book also describes and analyzes several ways in which prosecutorial enforcement fails. For the most part, these failings relate to the origins of the Ministério Público as an institution predominantly focused on criminal prosecution. Moreover, prosecutors are trained in the general study of law, and they may or may not have particular talent for or interest in environmental law and its enforcement. I discuss how prosecutorial enforcement fails through the inconsistency of its enforcement actions; an absence of prioritization; an extreme degree of legalism; and the difficulties associated with reliance on the judiciary. I also show that prosecutorial enforcement lacks mechanisms of accountability for prosecutors. There is little oversight of prosecutorial investigations, legal enforcement actions, and conduct adjustment agreements from either within the institution or outside, opening possibilities for the abuse of prosecutorial power.

The involvement of legal actors in environmental enforcement may lead to less consistent treatment of regulated entities. As explained by Hawkins, "[c]onsistent enforcement means, ideally, that individual officials decide the outcomes of apparently similar cases in similar ways . . . and that such decisions are made consistently over time, as far as possible."[63] With more hierarchical structures, regulatory agencies are likely to be more capable than prosecutorial institutions to devise policies and limit discretion in ways that enhance the consistency of the government's response to violations of the law.[64]

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62. *See generally* BARDACH & KAGAN, *supra* note 10; AYRES & BRAITHWAITE, *supra* note 3.

63. HAWKINS, *supra* note 3, at 226. On the issue of consistency in enforcement by the United States Environmental Protection Agency, see U.S. GOV'T ACCOUNTABILITY OFFICE, ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT: EPA'S EFFORT TO MAKE MORE CONSISTENT ITS COMPLIANCE AND ENFORCEMENT ACTIVITIES (June 28, 2006), *available at* http://www.gao.gov/new.items/d06840t.pdf.

64. In literature on American prosecutorial institutions, scholars have often discussed the tension between the goals of individualizing criminal justice decisions and promoting their consistency. *See, e.g.*, Lloyd E. Ohlin, *Surveying Discretion by Criminal Justice Makers*, *in* DISCRETION IN CRIMINAL JUSTICE: THE TENSION BETWEEN INDIVIDUALIZATION AND UNIFORMITY 1 (L. E. Ohlin & F. J. Remington eds., 1993); LEIF H. CARTER, THE LIMITS OF ORDER (1974). *But see* DAVID T. JOHNSON, THE JAPANESE WAY OF JUSTICE: PROSECUTING CRIME IN JAPAN 16 (2002) (finding that a combination of cultural and structural factors allow Japanese prosecutors to more regularly attain both goals).

My research on Brazilian prosecutorial enforcement found that where the Ministério Público has many prosecutors active in environmental enforcement, as in the state of São Paulo, significant inconsistency is likely. Responsible only for their own judicial district, prosecutors do not systematically consider how the problems in their jurisdictions relate to or compare with problems in the other judicial districts of the state. Moreover, the extent and zealousness of a prosecutor's activity with regard to environmental problems varies according to his interests and knowledge. As one São Paulo environmental prosecutor explains, the institution's defense of environmental interests "has occurred in a fragmented way, without an effective institutional effort to formulate long-term strategic goals that guide the overall work of its prosecutors."[65]

Prosecutors have rejected as a threat to their independence initiatives within the São Paulo Ministério Público that could promote consistency, such as those that would require prosecutors to coordinate with each other or align their activity with an overarching "action plan" for environmental defense. As I explain in my book, prosecutorial independence in Brazil is guaranteed by the Brazilian Constitution of 1988 and has two primary aspects.[66] First, the Ministério Público has a high degree of "political independence" because it is largely removed from the control of the three branches of government. While the head of the Ministério Público (the state or federal attorney general) is usually appointed by the head of the executive branch (the governor or the president), the Ministério Público has substantial autonomy over its budget and allocation of resources.[67] Second, each prosecutor enjoys "functional independence," interpreted to mean that individual prosecutors may pursue cases in the manner they deem appropriate, free of influence by the leadership of the institution.[68] I argue in my book that prosecutorial independence in Brazil has been critical to the development of the institution as a strong environmental enforcement actor, but I recognize that this same independence limits the effectiveness of its environmental work by impeding institutional coordination and planning.

I also pay special attention in my book to the related "prioritization problem" of prosecutorial enforcement.[69] A regulatory

65. McAllister, *supra* note 5, at 116 (citing Luis Roberto Proença, Inquérito Civil 149, 150 (2001)).

66. *Id.* at 63-66, 108-09

67. *Id.* at 64, 108.

68. *Id.* at 108-09.

69. *Id.* at 162.

agency's capacity to prioritize environmental violations is a hallmark of effective enforcement.[70] Yet a longstanding tenet of criminal procedure in countries with civil law systems, the "principle of obligation," impedes prioritization by Brazilian environmental prosecutors. In the context of criminal prosecution, this principle holds that a prosecutor has the obligation to file criminal charges in every case where sufficient evidence of the defendant's guilt exists.[71] While it originated in the criminal context, most Brazilian environmental prosecutors also formally adhere to the principle in their civil enforcement work.

In practice, this principle means that whenever a Brazilian prosecutor becomes aware of a case of environmental harm, he or she feels obliged to open a civil investigation. Unable to set his own agenda because of the need to respond to all problems that come to his attention, one São Paulo environmental prosecutor explained that he is faced with two types of problems in his daily work: the "unsolvable and the insignificant."[72] On the one hand, there are "very difficult problems like river pollution, watershed protection, and urban zoning violations;" on the other, "we have the [noise from the] local disco and the cutting of a handful of trees." Unable to resolve the unsolvable problems and constantly dealing with insignificant problems, he questioned the effectiveness of his work.

Another weakness of prosecutorial enforcement is the tendency some prosecutors have toward overly legalistic interpretation and application of the law. At its extreme, a legalistic approach may result in the "literal application of a legal rule," without regard to "common-sense notions of fairness and social utility."[73] Insistence upon legal fidelity can override the goal of getting "the work of society done."[74] In other words, as Professor Crawford suggests I should, I consider whether "the Ministério Público is but another

70. *See, e.g.*, BARDACH & KAGAN, *supra* note 10, at 166-72 (discussing the tradeoff between responsiveness to public complaints and prioritization); John T. Scholz, *Managing Regulatory Enforcement in the United States*, *in* HANDBOOK OF REGULATION AND ADMINISTRATIVE LAW 423, 427-29 (David H. Rosenbloom & Richard D. Schwartz eds., 1994) (discussing efficient allocation of enforcement resources); *cf.* Carlos W.H. Lo & Gerald Fryxell, *Enforcement Styles Among Environmental Protection Officials in China*, 23 J. PUB. POL'Y 81, 85 (2003).

71. MCALLISTER, *supra* note 5, at 94.

72. *Id.* at 162-63.

73. *Id.* at 142 (citing ROBERT A. KAGAN, REGULATORY JUSTICE: IMPLEMENTING A WAGE-PRICE FREEZE 6 (1978)).

74. BARDACH & KAGAN, *supra* note 10, at xxi (citing Philip Selznick).

impediment to effective and efficient government in the massive and often maddening Brazilian bureaucracy."[75]

As I discuss in my book, in the view of the law-trained prosecutors, the letter of the law may dictate what should happen in enforcement.[76] For example, I find that São Paulo environmental prosecutors tend to consider the Brazilian constitution's environmental provisions and other environmental laws to be comprehensive and clear, particularly with regard to the government's obligation to protect the environment. When prosecutors discover a violation that was not sanctioned by the agency, they often consider this to be a failure or omission of the agency. While also claiming to adhere to the law, the São Paulo environmental agency has an approach to environmental enforcement more typical of a governmental agency. The agency does not expect to detect and punish all violations, but rather views itself as having to make difficult decisions about how to allocate its enforcement resources. This difference in their basic approaches has led to conflicts between São Paulo prosecutors and environmental agency officials that weaken environmental enforcement in the state.[77]

An additional limit on the effectiveness of prosecutorial enforcement in Brazil is its reliance on the Brazilian judicial branch. While the Ministério Público's ability and willingness to prosecute enforcement cases in court is part of its strength, Brazilian courts tend to have a long backlog of cases and many years are required for final decisions. As the Ministério Público ultimately depends on the judiciary for resolution of its legal actions, the lack of a responsive judiciary undermines its authority and bargaining power.[78] Moreover, courts arguably lack the institutional capacity to deal with environmental cases that tend to be technically complex and require negotiated resolutions involving multiple parties rather than the sort of winner-takes-all justice that courts most commonly dispense.[79]

Finally, and most important, there is an accountability problem with prosecutorial enforcement. As I discuss at length in the concluding chapter of the book, mechanisms that subject prosecutors to democratic oversight are weak or nonexistent. As tenured civil servants rather than elected officials, prosecutors are not accounta-

75. Crawford, *supra* note 7, at 636.
76. McAllister, *supra* note 5, at 142-43.
77. *Id.* at 142.
78. *Id.* at 172.
79. *Id.* at 174-75.

ble directly to the public. And accountability that might be attained through oversight of the institution by the elected officials of the executive and legislative branches is highly limited by the constitutional guarantees of political and functional independence fiercely defended by the Ministério Público. The judiciary plays an important role in providing a check on prosecutorial power with its decisions in enforcement cases, but the Ministério Público resolves many cases through settlement agreements that do not require judicial approval. A 2004 constitutional amendment created a National Council of the Ministério Público with power to oversee certain financial and administrative aspects of the institution, but its potential as an oversight institution may be limited by the fact that eight of its fourteen members are required to be federal or state prosecutors.[80]

Professor Crawford accuses me of telling the story that Brazilian prosecutors tell about themselves, of lacking "critical distance" from my subjects.[81] He implies that I was duped by my "white knights" into believing that their environmental enforcement work serves any interests beyond their own.[82] However, the story I tell about Brazilian prosecutors, recounted above, is attentive to both successes and failures of prosecutorial enforcement, and the evidence of its effectiveness comes not just from the statements of prosecutors, but also from the stories of many others, including environmental citizen group leaders and environmental agency officials (who also often have reasons to express strong criticisms of prosecutors). I identify some very active environmental prosecutors as "hardliners" and discuss the counterproductive implications of their negative characterization of agency officials.[83] And I relate that while some state prosecutors in Pará project themselves and their institution as a strong actor in environmental enforcement, the data does not support such a finding.[84]

Perhaps rather than accusing me of defending Brazilian prosecutors, he might have accused me of being optimistic about the envi-

80. The Council is composed of the federal attorney general, three members of the federal Ministério Público, and four members of state Ministérios Públicos as well as two judges, two lawyers and two citizens with legal knowledge. *See* Centro de Estudios de Justicia de las Américas [Justice Study Center of the Americas], Reporte de la Justicia: Ministerio Público de la Unión [Justice Report: Public Prosecutor's Office] 104 (2006-07), http://www.cejamericas.org/reporte/ (follow "Brasil" hyperlink; then follow "Ministerio Público de la Unión" hyperlink).

81. Crawford, *supra* note 7, at 641.

82. *Id.* at 624, 632, 645-46.

83. McAllister, *supra* note 5, at 133-36.

84. *Id.* at 141-42.

ronmental performance of the Brazilian procuracy, or more broadly, about the possibility for legal institutions to contribute to positive social change. As Professor Esquirol argues, few commentators on Latin American law have been optimistic about the potential for law as a success in Latin American countries.[85] Rather the common discourse is one of "failed law," involving an attack on or dismissal of state law. Similarly in the literature on environmental regulation, the common story is one of nonenforcement and of environmental regulation that doesn't work.[86] In contrast, the focus in my book is on state law and legal institutions in Brazil, and I say that something seems to be working. My tone is admittedly optimistic, but not uncritically optimistic.

And I am not the only recent observer striking a note of optimism about the potential for law and legal institutions in social transformation in Latin America. A 2006 edited volume suggestively entitled, "Courts and Social Transformation in New Democracies: An Institutional Voice for the Poor?" is also supportive of the possibility for social rights litigation to lead to social change.[87] In a particularly relevant chapter, Lima Lopes analyzes Brazilian public civil actions in the areas of health and education filed primarily by Brazilian prosecutors. Lima Lopes finds that these "class actions are trying to force changes in the public sector," and that "[c]ourts may be considered as an important channel to voice the needs and claims of the poorer parts of the population in certain areas of the country, at least."[88] In another edited collection, two Brazilian political scientists write that the attributes and guarantees contained in the Constitution of 1988 "give the Public Prosecution a great deal of potential and capacity to promote citizen rights. The new legal parameters and 'political will' embodied in the Constitution have, in fact, translated into effective action."[89]

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85. Jorge L. Esquirol, *The Failed Law of Latin America*, 56 Am. J. Comp. L. 75, 77 (2008).

86. McAllister, *supra* note 5, at 1.

87. Pilar Domingo, *Introduction* to Courts and Social Transformation in New Democracies: An Institutional Voice for the Poor? 1, 2 (Roberto Gargarella, Pilar Domingo & Theunis Roux eds., 2006).

88. Jose Reinaldo de Lima Lopes, *Brazilian Courts and Social Rights: A Case Study Revisited*, *in* Courts and Social Transformation in New Democracies: An Institutional Voice for the Poor? 185, 206 (Roberto Gargarella, Pilar Domingo & Theunis Roux eds., 2006). In this 2006 study, Lima Lopes reverses course from his 1999 analysis in which he concluded that prosecutors litigating health and education cases were more "sensitive" to well-organized middle-class interests who "could voice their complaints more effectively than disadvantaged groups." *Id.*; *cf.* Jose Reinaldo de Lima Lopes, *Social Rights and the Courts*, *in* From Dissonance to Sense: Welfare State Expectations, Privatisation and Private Law (T. Wilhelmsson & S. Hurri, eds., 1999).

89. Sadek & Cavalcanti, *supra* note 43, at 208-09.

Professor Crawford mentions a recent case in which a federal court overturned a conduct adjustment agreement negotiated by a São Paulo prosecutor because it would have permitted deforestation without the required authorization from the appropriate environmental agency.[90] He points to this case as an example of how the Ministério Público "sometimes serves corporate and other private interests, and is often alienated from the civil society it nominally represents."[91] I too received an email announcing the judicial victory of the environmental organization in the case, but the lessons I drew from it were different.

While the case may be read as an instance of failure and abuse of power by the Ministério Público, the case's mere existence signals the great success of prosecutorial enforcement. The agreement at issue in this case may have been particularly egregious, but it is not uncommon for conduct adjustment agreements to allow for the continuation of some arguably illegal behavior with the promise of compliance after a certain time period or perhaps as a concession made in the course of gaining other commitments. In the eyes of many scholars of regulation, a certain degree of give-and-take, or "reasonableness," in negotiations between the government and violators is the hallmark of effective and efficient regulatory enforcement.[92] Moreover, the fact that the environmental group pursued this case is indicative of its perception that what the Ministério Público does (or doesn't do) has a real impact on people's behavior and the environment. The case reflects a new Brazilian reality in which prosecutors, citizen groups, and courts as well as environmental agencies are active in the field of environmental enforcement.

Paths to Be Taken: A Research Agenda

My research was focused on how the Brazilian Ministério Público as an institution contributes toward the effectiveness of environmental enforcement and environmental law, but there are many other questions about environmental law and legal institutions in Brazil that I might have asked instead. Professor Crawford's review

90. Crawford, *supra* note 7, at 630.

91. *Id.* at 631.

92. Bardach & Kagan, *supra* note 10, at 134-42; Keith Hawkins, Environment and Enforcement: Regulation and the Social Definition of Pollution 122-23 (1984). *See also* Austin Sarat & Conor Clarke, *Beyond Discretion: Prosecution, the Logic of Sovereignty, and the Limits of Law*, 33 L. & Soc. Inquiry 387, 387 (2008) (arguing generally that prosecutorial decision making is in effect an exercise of the sovereign's power to exempt individuals from the reach of the law).

helpfully points to several other worthwhile avenues of inquiry. Indeed, a great deal of research is needed to build up our understanding of the social effects of environmental law and its enforcement in diverse economic and political contexts. I set forth this research agenda for the study of environmental enforcement and compliance in developing countries with the hope that many more scholars will endeavor to contribute to our knowledge in this area.

A. *Effectiveness of Environmental Law*

Much important research remains to be done on the effectiveness of environmental enforcement and law in developing countries. The need for further research ranges from the relatively straightforward task of defining the institutional arrangements adopted in different countries to the very challenging task of collecting and analyzing qualitative and quantitative data about the impacts of particular laws, particularly on the regulated entities and the environment itself.

For many countries, we have little knowledge of the key regulatory and legal institutions involved in environmental enforcement and the relationships among them. What are the characteristics of environmental agencies in terms of their internal and external resources, organizational structure and culture, and sanctioning powers and practices? A key question in the literature on regulatory enforcement in developed countries has regarded how much discretion agency inspectors have and how they exercise it. Do the ideal types of enforcement styles, the cooperative style and the legalistic style, capture important elements of agency practice, and how might they need to be expanded or modified to fit the developing country context? Where legal institutions are involved, research can tell us more about the types of cases litigated and settled, and how judges, prosecutors, and other legal actors differ in how they view environmental cases and interpret relevant environmental law.

There are also many questions that may arise regarding the relationships among enforcement actors. How do environmental agencies at different levels of government share power and coordinate? A Uruguayan scholar Marcelo Caffera and his co-authors have posited that in developing countries, environmental policy is characterized by overlapping jurisdictions as it is in developed

countries, but the capacity for coordination is lower.[93] How is the work of environmental agencies affected and influenced by the activities of regulated entities, prosecutors and courts, party politics, the press, and international institutions? With regard to international institutions, Caffera's study finds that the Inter-American Development bank had a great deal of influence in the design of a compliance program for the control of industrial water pollution in Montevideo, Uruguay, and that the program failed to increase levels of compliance as intended.[94]

Particularly where legal institutions are involved in environmental law, important questions arise as to how power is shared across branches of government. Professor Crawford observes that I depict several dimensions of the relationship between Brazilian prosecutors and environmental agencies that appear contradictory.[95] I discuss both how the enforcement activities of prosecutors developed in part to fill the breach of weak enforcement by agencies, and I also assert that in its most effective emanations, prosecutorial enforcement involves cooperation and coordination between prosecutors and agencies.[96] Indeed, I found that the relationship between agencies and prosecutors in Brazil is multidimensional and complex, and empirical inquiry in other countries is also likely to reveal complicated institutional relationships.

There is also much research to be done about the impact of environmental law on the behavior of regulated entities in developing countries. How do regulated entities respond to particular laws and regulations? Under what circumstances do fees and fines deter violations? What motivates firms to comply or even go beyond compliance? Companies that are part of multinational firms may have different motivations and resources than domestic firms. Municipal- or state-owned entities such as sewage treatment plants may require a very different enforcement approach than private entities.

Research about the operation of particular environmental policy instruments is also of great relevance. Studies by the World Bank have suggested that "voluntary" regulation that provides the public with information about pollution may be more effective than tradi-

93. MARCELO CAFFERA, BERNARD MORZUCH & JOHN K. STRANLUND, EFFECTIVENESS OF THE ENFORCEMENT OF INDUSTRIAL POLLUTION STANDARDS IN A LESS DEVELOPED COUNTRY 3 (2006), *available at* http://www2.udec.cl/fcea_eco/papers/seminarios/s2006-4.pdf.

94. *Id.* at 5, 37.

95. Crawford, *supra* note 7, at 633-34.

96. MCALLISTER, *supra* note 5, at 174, 185.

tional "command-and-control" regulation.[97] Also, market-based environmental regulatory instruments such as pollution taxes and emissions trading programs are often recommended to developing country governments by international experts.[98] Observing this trend, Bell has pointed out that market-based environmental regulation may not fit well with the cultural and institutional contexts of many developing countries.[99] Research is needed to address the many theoretical and empirical questions that arise with the use of these new regulatory approaches.

Another topic of great practical and theoretical importance concerns the efficacy of establishing environmental constitutional rights. The Brazilian constitution, like many other developing-country constitutions written in the last 30 years, proclaims a right to an "ecologically-equilibrated" environment.[100] Why is a rights approach promoted and adopted? With what effects and consequences? Does the constitutional declaration of such a right lead toward social reform? How do environmental rights become part of legal discourse and legal culture, both internal (that of legal practitioners) and external (that of society generally)? How are environmental rights different from other social rights, such as the right to livelihood promoted by agrarian reform interests and the right to food promoted by anti-hunger activists? How does "rights talk" reframe political issues as legal issues? There is a large literature based on the experience of western industrialized countries that debates the efficacy of rights.[101] Much remains to be examined in the context of other countries.

When possible, research should seek quantitative data about the environmental consequences of law and its enforcement in developing countries. The study of the effectiveness of law is about how law changes human behavior, and research revealing environmen-

97. World Bank, Greening Industry, New Roles for Communities, Markets and Governments (2000), *available at* http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2000/12/13/000094946_9911240530591/Rendered/PDF/multi_page.pdf (last visited May 23, 2008). On why the term "command and control" is problematic, see Lesley K. McAllister, *Beyond Playing "Banker": The Role of the Regulatory Agency in Emissions Trading*, 59 Admin. L. Rev. 269, 270 n.3 (2007).

98. Bell, *supra* note 2, at 638.

99. Bell, *supra* note 2.

100. McAllister, *supra* note 5, at 24.

101. *See, e.g.*, Richard M. Dworkin, Taking Rights Seriously (1978); Daniel A. Farber, *Rights as Signals*, 31 J. Legal Stud. 83 (2002); R. Shep Melnick, *Separation of Powers and the Strategy of Rights: the Expansion of Special Education*, *in* The New Politics of Public Policy (M. K. Landy & M. A. Levin eds., 1995); Stuart A. Scheingold, The Politics of Rights: Lawyers, Public Policy, and Political Change (1974); Cass R. Sunstein, After the Rights Revolution: Reconceiving the Regulatory State (1990).

tal quality improvements attributable to law would make an important contribution to the field. Yet this is a very difficult task. Even in developed countries, it is only rarely that studies of regulatory enforcement have gone beyond counting numbers of citations or fines, or making rough measures of noncompliance rates. After many years of research, there are now a handful of such studies; among them, for example, are a couple studies that link levels of pollution reduction in pulp mills to differences in environmental enforcement in the United States and Canada.[102] This kind of research requires either reliable agency data about outcomes at particular firms or the cooperation of those firms themselves, neither easy to come by in any country, let alone in developing countries.

B. *Environmental Justice*

Many of Professor Crawford's comments on my book can be interpreted as a call for the examination of issues of environmental justice in environmental law.[103] The extent to which environmental law promotes equity and fairness is best viewed as a separate criterion from effectiveness for evaluating the success of a regulatory strategy.[104] It is one thing to assert that environmental regulation is effective (it contributes to improving the environment); it is another to assert that regulation is equitable (it distributes "goods" and "bads" fairly). The former is what my book is concerned with; the latter is the province of environmental justice. There are many interesting research paths to be taken toward understanding whether environmental law and its enforcement are equitable in Brazil and other developing countries.

Environmental justice, as a field, asks how environmental law fails to further values of distributive justice, procedural justice, corrective justice, and social justice.[105] In the words of one of its intellectual leaders, "[e]nvironmental justice embraces the principle that all people and communities are entitled to equal protection of

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102. *See, e.g.*, Kathryn Harrison, *Is Cooperation the Answer? Canadian Environmental Enforcement in Comparative Context*, 14 J. POL'Y ANALYSIS & MGMT. 221, 221 (1995); GUNNINGHAM, KAGAN & THORNTON, *supra* note 3.

103. *See e.g.*, Crawford, *supra* note 7, 627.

104. GUNNINGHAM & GRABOWSKY, *supra* note 9, at 26 (choosing effectiveness and efficiency as their primary criteria for a successful regulatory strategy and stating that putting equity at the top of the list would "involve us in writing a very different book, with a very different title.").

105. Alice Kaswan, *Environmental Justice: Bridging the Gap between Environmental Laws and "Justice,"* 47 AM. U. L. REV. 221, 228 (1997); Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 Envtl. L. Rep. (Envtl. Law Inst.) 10,681 (2000).

environmental and public health laws and regulations."[106] In the United States, environmental justice was first brought to national attention in the early 1980s when an African-American community opposed the local siting of a hazardous waste landfill. Inspired by the civil rights movement, environmental justice emerged as a grassroots movement challenging governmental agencies and other actors to address the fairness of their environmentally related decisions and actions.[107]

While many claims of environmental justice have arisen in the context of "not in my backyard" ("NIMBY") land uses, the concerns of environmental justice are much broader. One of these concerns involves the extent to which justice is furthered in decisions and actions relating to environmental enforcement. As part of environmental enforcement, environmental agencies may develop priorities and allocate enforcement resources in ways that have significant distributional implications.[108] As explained by Professor Lazarus, "[i]n the setting of these administrative priorities, if the process is left to default, there is great reason to suspect that the winners and losers will reflect a distributional skewing. The losers are going to be low income persons, persons of color, and their communities."[109]

Evidence on environmental enforcement in the United States supports this assertion. A 1992 study by the National Law Journal found that penalties imposed by the EPA for violations of federal environmental laws were substantially lower in minority communities than in white communities. Ample opportunities for environmental enforcement officials to discriminate either intentionally or unintentionally arise given the officials' ample powers of discretion and the lack of oversight.[110] Minority and low-income communities are likely to have fewer internal resources allowing them to detect noncompliance and file environmental citizen suits.[111]

My book addressed how the Ministério Público's enforcement activity expands citizen access to legal forums for the dispute of

106. Robert D. Bullard, *Environmental Justice: It's More than Waste Facility Siting*, 77 Social Sci. Q. 493, 493 (1996).

107. Alice Kaswan, *Distributive Justice and the Environment*, 81 N.C. L. Rev 1031, 1035 (2003).

108. Richard Lazarus, *Environmental Justice and the Teaching of Environmental Law*, 96 W. Va. L. Rev. 1025, 1026 (1994).

109. *Id.* at 1028.

110. Robert R. Kuehn, *Remedying the Unequal Enforcement of Environmental Laws*, 9 St. John's J. Legal Comment. 625, 640 (1994).

111. Eileen Guana, *Federal Environmental Citizen Provisions: Obstacles and Incentives on the Road to Environmental Justice*, 22 Ecology L.Q. 1, 3 (1995)

environmental conflicts. Prosecutors receive public complaints relating to environmental problems, and in some cases these complaints may result in litigation filed by prosecutors on behalf of "diffuse or collective interests." My research suggests that processes of environmental enforcement are more accessible overall to Brazilian citizens than they would be if environmental agencies were the sole or primary environmental enforcement entity.[112]

There are many paths of research that could be taken to understand how that access is distributed. As Professor Crawford inquires, "[w]hat kind of justice is thus made available, and for whom?"[113] Clearly not all complaints are acted on to the same degree. Does the race or income level of the complainant help to explain variations? Do environmental groups that represent the interests of higher-income citizens have more access to prosecutors than others? Considering the whole of the institution's work, which types of environmental interests receive most attention and why? Similar questions could also be asked about the environmental enforcement work of Brazil's environmental agencies.

Professor Crawford draws attention to the problem of defining "societal interests" in a diverse and inequitable society. As I use it in my book, "societal interests" is shorthand for "diffuse and collective interests," a technical legal term in the Brazilian laws under which prosecutors gained their authority to file environmental enforcement cases.[114] Professor Crawford's remarks are again informed by environmental justice, which embodies the insight that not everyone has the same environmental interests—rural town dwellers are, for example, less likely than city dwellers to be actively interested in urban pollution levels.

Admittedly, I do not take as a focus in my work the conceptual validity of the notion of societal interests. Rather, in line with my research focus, I make a simplifying assumption that effective enforcement of environmental laws serves societal interests, writ large. For research on the concept of the societal interests, one might draw upon the large literature about the concept of the "public interest" in the United States.[115] The reading of this litera-

112. At least one citizen group representative that I interviewed emphasized that the Ministério Público was more responsive than the agency. *See* McAllister, *supra* note 5, at 159.

113. Crawford, *supra* note 7, at 639.

114. *See supra* text accompanying note 13.

115. On the difficulty in defining the public interest, see, e.g., Vera Langer, *Public Interest in Civil Law, Socialist Law, and Common Law Systems: The Role of the Public Prosecutor*, 36 Am. J. Comp. L. 279, 279 (1988); Michael W. McCann, Taking Reform Seriously: Perspec-

ture could be informed by another large literature on the problem of social inequality in Brazil, which might help elucidate the relationship of different sectors of society to state institutions.[116] It is a complex topic, and one worthy of scholarly attention, but it was not mine.

Professor Crawford also reveals an acute interest in the social and economic background of prosecutors. He implies that I should have explored the class and gender biases of prosecutors.[117] While I do not dispute that gender and class bias may influence prosecutors in how they carry out their jobs, I came across many prosecutors in my research who were women and many who came from fairly humble backgrounds. A recent survey answered by over 3,000 state prosecutors showed that about 69 percent are men and 31 percent women.[118] It also showed that about 45 percent of their fathers finished college while 34 percent of their fathers had the equivalent of or less than a grade school education.[119] My research did not suggest that gender and class background were significant avenues of inquiry towards understanding the institution's effectiveness as an enforcement actor.

While many environmental justice-related issues were outside the scope of my research, they represent interesting avenues for further research. Were they the focus of empirical research in Brazil, however, I do not think that the outcomes would be as negative as implied by Professor Crawford. As I explain in my book, prosecutors are a point of access into the environmental regulatory system. While prosecutors have biases that will affect their enforcement work, I view it as unlikely that underrepresented interests will be less well served by environmental regulation than they would be without the Ministério Público's presence.

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tives on Public Interest Liberalism (1986); Robert Rabin, *Lawyers for Social Change: Perspectives on Public Interest Law*, 28 Stan. L. Rev. 207 (1976); Burton Allen Weisbrod, Joel F. Handler & Neil K. Komesar, Public Interest Law: An Economic and Institutional Analysis (1978).

116. Relevant major works include Celso Furtado, The Economic Growth of Brazil (1963); Phillipe C. Schmitter, Interest Conflict and Political Change in Brazil (1971); and Rebecca Reichmann, Race in Contemporary Brazil: From Indifference to Inequality (1999).

117. *See, e.g.*, Crawford, *supra* note 7, at 640, 643.

118. *See* Ministério da Justiça, Diagnostico Ministério Público dos Estados 81-82 (2006). With respect to racial composition, 83.6% of prosecutors are of European ancestry (*branca*); 12.8% of mixed African and European ancestry (*parda*); 1.8% are of African ancestry; 1.5% are of Asian ancestry, and 0.3% are of indigenous ancestry. *Id.* at 83.

119. *Id.* at 83.

C. *Environmental Movement Organizations*

Related to his interests in environmental justice, Professor Crawford observes a need for more attention to how the Ministério Público relates to environmental movement organizations and social movements in Brazil more broadly. I include some discussion of the composition and activity of environmental organizations in my discussion of how the Ministério Público expands their access to legal venues. I point out that citizen groups often look to the Ministério Público to bring added force to their advocacy work; and I examine how higher levels of environmental litigation may lead to the "judicialization of politics."[120] However, there are many other paths of inquiry that may be followed with respect to the characteristics of environmental movement organizations in developing countries and their contribution to environmental law.

I interpret several of Professor Crawford's remarks to pose the broad question of why some social movements attract the attention and support of legal institutions, while others do not. Professor Crawford asks, "Why environmental enforcement? And why by well-paid government lawyers?"[121] Professor Crawford then offers the Landless Workers Movement (*Movimento Sem Terra*) and its relative lack of access to the Ministério Público and courts as a contrasting case that I could have explored.[122] Along these lines, I have observed elsewhere that the São Paulo Ministério Público's activity in the areas of environmental protection and anticorruption is much more voluminous than its activity in the areas of consumer protection and disability rights.[123] Though the question is an interesting one, my research was not structured to discover why the Ministério Público has accommodated the representation of some societal interests more than others. If one were to undertake such research, the broad literature on social movements in Brazil and other developing countries might constitute a useful starting point.[124] With regard specifically to how social movements and

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120. McAllister, *supra* note 5, at 152-77.

121. Crawford, *supra* note 7, at 636.

122. *Id.* at 641.

123. McAllister, *supra* note 16, at 24.

124. *See generally* Hochstetler & Keck, *supra* note 4; Sonia E. Alvarez, *Deepening Democracy: Popular Movement Networks, Constitutional Reform, and Radical Urban Regimes in Contemporary Brazil*, *in* Mobilizing the Community: Local Politics in the Era of the Global City 191, 191 (Robert Fisher & Joseph Kling eds., 1993); Sonia E. Alvarez, Evelino Dagnino & Arturo Escobar, Cultures of Politics, Politics of Cultures: Re-Visioning Latin American Social Movements (1998); Sidney G. Tarrow, Power in Movement: Social Movements and Contentious Politics (1998).

lawyers interact, the literature on "cause lawyering" could be helpful.[125]

The relationship between Brazilian prosecutors and civil society organizations calls for further research. Cavalcanti explores this terrain in her recent piece, *The Effectiveness of Law: Civil Society and the Public Prosecution in Brazil.*[126] Her interviews of civil society organization representatives suggest that there has been a great deal of association and joint action between civil society and prosecutors in the areas of children's rights, public health, and anticorruption, as well as in the environmental area.[127] She observes, however, that "the relationship between the [Ministério Público] and civil society should be understood as an uneven one combining progress, stagnation, and even regression." Certain societal groups that arguably raise issues of collective rights, such as landless workers and gay rights activists, have not found the institution to be receptive, and there is concern that the upper echelon of the state procuracies are susceptible to political influences in the same way that other governmental agencies tend to be.[128] Civil society organization leaders that do often partner with the Ministério Público express the importance of maintaining "oversight" of prosecutors and avoiding overdependence on their assistance.[129]

One set of writings that may be particularly useful in analyzing the relationship between the Ministério Público and civil society regards the potential for "state-society synergy."[130] State-society synergy involves a reciprocal relationship between civic engagement and effective state institutions, in which each strengthens the other. Under the synergy hypothesis, "[t]he actions of public agen-

125. *See, e.g.*, CAUSE LAWYERING: POLITICAL COMMITMENTS AND PROFESSIONAL RESPONSIBILITIES (Austin Sarat & Stuart A. Scheingold eds., 1998); CAUSE LAWYERING AND THE STATE IN A GLOBAL ERA (Austin Serat & Stuart A. Scheingold eds., 2001); THE WORLDS CAUSE LAWYERS MAKE: STRUCTURE AND AGENCY IN LEGAL PRACTICE (Austin Sarat & Stuart A. Scheingold eds., 2005).

126. Rosângela Batista Cavalcanti, *The Effectiveness of Law: Civil Society and the Public Prosecution in Brazil*, *in* ENFORCING THE RULE OF LAW: SOCIAL ACCOUNTABILITY IN THE NEW LATIN AMERICAN DEMOCRACIES 34, 34 (Enrique Peruzzotti & Catalina Smulovitz eds., 2006).

127. *Id.* at 43. Cavalcanti reports that the institution's environmental performance "is rated very highly" by civil society organizations in the Northeastern states of Paraiba and Bahia. *Id.*

128. *Id.* at 46-47. With respect to institution's reluctance to advocate for landless workers, Cavacanti suggests that there is little room under existing property rights laws for the Ministério Público to argue on behalf of the rights of landless workers who trespass on private land. *Id.* at 46.

129. *Id.* at 47-51.

130. *See* MCALLISTER, *supra* note 5, at 158. For empirical case studies examining potential sites of state-society synergy, see LIVABLE CITIES? URBAN STRUGGLES FOR LIVELIHOOD AND SUSTAINABILITY (Peter Evans ed., 2002).

cies facilitate forging of norms of trust and networks of civic engagement among ordinary citizens and using these norms and networks for developmental aims. Engaged citizens are a source of discipline and information for public agencies as well as on-the-ground assistance in the implementation of public projects."[131] In my book, I suggest that the Brazilian Ministério Público might be a site for state-society synergy when I discuss how environmental movement organizations enlist the help of the Ministério Público.[132]

There is also much room for research about the role of environmental organizations and other civil society actors in the making of environmental law and policy. Bell has observed that in developing countries, there may be little participation by civil society actors in lawmaking.[133] Without civil society involvement in the drafting process, laws may not be "rooted in any deep seated agreement within society about how much pollution is tolerable, what to do about the pollution, what level of risk society is willing to accept, how to manage trade-offs e.g. between growth and control."[134] In developing countries, an analysis of environmental lawmaking should be attentive not only to local and national interest group participation, but also to influences of foreign law and international institutions.[135]

D. *Comparative Environmental Law*

National comparison is a very promising approach toward explaining how environmental regulation and enforcement operates in developing countries. A key question regards whether there are differences in administration of environmental law that may be generalizable and how environmental law accommodates such differences. While there is little rigorous empirical analysis, scholars have often noted that the effectiveness of environmental law in developing countries is constrained by factors such as prioritization of economic development goals; inadequate agency resources;

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131. Peter Evans, *Introduction: Development Strategies across the Public-Private Divide*, 24 World Dev. 1033, 1034 (1996).

132. McAllister, *supra* note 5, at 158.

133. *Cf.* Bell, *supra* note 2, at 654 (stating that "law drafting in some societies has been, or is still, a closely held process").

134. *Id.*

135. For example, in Brazil, the first national efforts of environmental regulation were spurred by the 1972 United Nations Conference on the Human Environment in Stockholm. McAllister, *supra* note 5, at 22; *see generally* Caffera, Morzuch & Stranlund, *supra* note 93.

inadequate judicial resources; and the weakness of mobilization by the beneficiaries of environmental law.[136] Comparative studies both between developed and developing countries as well as among developing countries could help explain the relative importance of these and other factors.

There is rich potential for exploring how and why particular environmental policy instruments work differently in different countries. Bell identifies barriers to the adoption of market-based environmental policy approaches in many developing countries including "low-functioning legal systems, historical inexperience with markets as the West conceives them, and . . . very different behavioral habits and customs."[137] The integrity of an emissions trading system, in particular, depends heavily on the implementation of strict monitoring, reporting, and verification rules.[138] Study of the implementation of environmental fees and fines in China has shown that many companies would rather simply pay them than change their behavior.[139] Other interesting questions regard how people's perceptions of environmental law and regulation differ among countries; how environmental agencies may be differently structured and have different capabilities to monitor noncompliance; variations in the relationships between environmental agencies and industry; and how the involvement of legal institutions differs.

Indeed, many important works in the empirical literature on environmental enforcement and compliance in developed countries have employed a comparative approach. An early study by Badaracco examined vinyl chloride regulation in five countries to understand how different types of institutional arrangements pattern regulatory decision making.[140] Based on a study of environmental policy in the United States and Britain, Vogel posits that the countries have distinct "national styles of regulation" that are roughly equivalent in terms of effectiveness but lead to very different government-business relationships.[141] A volume edited by Kagen and Axelrad included ten case studies of multinational com-

136. *See, e.g.*, CAFFERA, MORZUCH & STRANLUND, *supra* note 93, at 3; MCALLISTER, *supra* note 5, at 3; Bell, *supra* note 2, at 639.

137. Bell, *supra* note 2, at 641.

138. *Id.* at 653; Lesley K. McAllister, *Putting Persuasion Back Into the Equation*, 24 PACE ENVTL. L. REV. 299, 318 (2007).

139. *See* Bell, *supra* note 2, at 647.

140. *See generally* JOSEPH L. BADARACCO, JR., LOADING THE DICE: A FIVE COUNTRY STUDY OF VINYL CHLORIDE REGULATION (1985).

141. *See generally* VOGEL, *supra* note 26.

panies with similar facilities in different countries to study how national regulation differed and how the companies were affected.[142]

One aspect of this comparative literature on environmental regulation is that it goes far beyond the text-based "rule comparison" of traditional comparative law scholarship.[143] Professor Merryman has proposed that the path forward for comparative law methodology should consist of "historical and empirical investigations of law . . . and social change," where law is taken to mean the "interrelated people, institutions, and processes [that] constitute the social sub-system that is [a] society's legal system."[144] Inherent in Merryman's proposal is an alignment with a contextual approach to the study of law over a textual approach. As explained by Professor Ewald, contextualists insist that law must be studied in the context of its surrounding society while textualists embrace the view that a legal system may operate according to its own rules.[145] Underlying each approach is a different view of the autonomy of the legal system. Whereas textualists view the law as relatively autonomous from society, contextualists assume that legal rules can be substantially deduced from the economic, social, and political system of a society.

My research on Brazilian environmental enforcement might have structured as a comparison with United States environmental enforcement. More specifically, I might have set out to compare environmental advocacy litigation in Brazil with environmental advocacy in the United States. Professor Crawford's review suggests that I did just this, stating that I "force [my] thesis" that public prosecutors in Brazil "are essentially like public interest lawyers in the US."[146] Far from a thesis, I make mention of this analogy in the preface to introduce readers to the discourse and range of activities of Brazilian prosecutors. As described at length above, the theses of my book do not involve national comparisons.

I agree, however, with Professor Crawford's implication that such a comparison would be interesting. Such an inquiry could draw

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142. *See generally* KAGAN & AXELRAD, *supra* note 12.

143. John Henry Merryman, *Comparative Law Scholarship*, 21 HASTINGS INT'L & COMP. L. REV. 771, 773 (1998).

144. Pierre Legrand, *John Henry Merryman and Comparative Legal Studies: A Dialogue*, 47 AM. J. COMP. L. 3, 50, 62 (1999).

145. William Ewald, *The Jurisprudential Approach to Comparative Legal Study: A Field Guide to "Rats,"* 46 AM. J. COMP. L. 701, 702-03 (1998).

146. Crawford, *supra* note 7, at 641 n.112.

upon the comparative law literature regarding group litigation.[147] Essentially the task would be to compare the U.S. "private attorney general" model of enforcement with the Brazilian prosecutorial enforcement model.[148] Broadly stated, the private attorney general model involves creating legal authority and support for private lawyers to file enforcement actions that may substitute for and supplement the enforcement actions of regulatory agencies. The prosecutorial enforcement model involves creating legal authority and support for members of the attorney general office (the prosecutors) that may substitute for and supplement the enforcement actions of regulatory agencies.

Professor Crawford implicitly endorses the private attorney general model. He seems to lament that "the often effective but also deeply paternalistic Ministério Público model was chosen, and not the non-profit model." Rather than being chosen, I view prosecutorial enforcement as emerging out of Brazil's legal and social context. By tracing its historical development and showing how it was constructed upon legal-cultural beliefs that society lacked representation in Brazil and that the legal system could help remedy this situation, my book offers some assistance in understanding why prosecutorial enforcement thrived in Brazil. The adoption of an explicitly comparative perspective, including comparisons of the Ministério Público of Brazil with the Ministério Público of neighbors such as Argentina or Uruguay, could shed more light on the origins and outcomes of prosecutorial enforcement in Brazil.

Moreover, while environmentalists in the United States widely celebrate the achievements of "citizen enforcement," there has been considerable criticism of the private attorney general model. It has been argued that the pattern of enforcement by private attorney generals in the United States "is determined not, as intended,

147. *See, e.g.*, Richard B. Cappalli & Claudio Consolo, *Class Actions for Continental Europe? A Preliminary Inquiry,* 6 TEMP. INT'L & COMP. L.J. 217 (1992); Michael S. Greve, *The Non-reformation of Administrative Law: Standing to Sue and Public Interest Litigation in West German Environmental Law,* 22 CORNELL INT'L L.J. 197, 197 (1989); Per Henrik Lindblom, *Individual Litigation and Mass Justice: A Swedish Perspective and Proposal on Group Actions in Civil Procedure,* 45 AM. J. COMP. L. 805 (1997). *See generally* MERRYMAN, *supra* note 23.

148. For dated but still useful discussions of the potential roles of private citizens and governmental advocates in defending public interests, see Mauro Cappelletti, *Governmental and Private Advocates for the Public Interest in Civil Litigation: A Comparative Study, in* ACCESS TO JUSTICE, VOLUME II at 777, 862-63 (Mauro Cappelletti & John Weisner eds., 1978); and David Trubek, *Public Advocacy: Administrative Government and the Representation of Diffuse Interests, in* ACCESS TO JUSTICE: VOLUME III at 447, 482-83 (Mauro Cappelletti & Bryant Garth eds., 1979).

by public benefits, but by private economic rewards.[149] Private attorney generals may often function like "bounty hunters," introducing significant inefficiencies and counterproductive effects into legal enforcement.[150] Others have shown that the private attorney general "depends in crucial respects on a combination of private initiative and governmental commitment to regulation and enforcement" and cannot "substitute for governmental machinery."[151]

The Brazilian case of prosecutorial enforcement implicates the questions of why different political systems create different regulatory structures, and what the consequences are. Might not a public attorney general be more effective and suitable as a representative of the public interest than a private attorney general in some contexts? Private advocacy requires a greater degree of private resources and civic engagement, factors that are limited in many developing countries. Also, it may be that public advocacy holds greater promise in civil law countries than common law countries due to traditional differences in the role of the judge, the role of the legal profession, and legal culture.[152]

As I discuss in my book, in civil law countries, the attorney general as an institution has a strong historical role in protecting the public interest through civil litigation.[153] In Brazil, it was this public interest role that formed the foundation for the Ministério Público's new authority to represent the diffuse and collective interests of society. The empirical evidence from Brazil strongly weighs in favor of the effectiveness of prosecutorial enforcement. The same Public Civil Action Law of 1985 that authorized the Ministério Público to file public civil actions on behalf of environmental interests also authorized any environmental organization that has existed

149. Michael S. Greve, *The Private Enforcement of Environmental Law*, 65 TULANE L. REV. 339, 360 (1990). Greve also argues that environmental citizen suit provisions lead to bounty hunters that "do not care about the societal consequences of their actions." *Id.* at 344.

150. John C. Coffee Jr., *Rescuing the Private Attorney General: Why the Model of the Lawyer as Bounty Hunter is Not Working*, 42 MD. L. REV. 215, 229-30 (1983) (arguing that "the incentives held out to the private attorney general are both inadequate and counterproductive in terms of the social interests that private enforcement of law intended to serve").

151. Bryant Garth, Ilene Nagel & S. Jay Plater, *The Institution of the Private Attorney General: Perspectives from an Empirical Study of Class Action Litigation*, 61 S. CAL. L. REV. 353, 357, 395 (1987-88).

152. *See generally* MERRYMAN, *supra* note 23.

153. MCALLISTER, *supra* note 5, at 61; *see also* Langer, *supra* note 115, at 280.

for at least a year to do the same.[154] Yet the great majority of such actions have been filed by the Ministério Público.[155]

Conclusion

Significant legal changes occur—an environmental regulatory agency is restructured and merged with another; an environmental crimes law is promulgated; the supreme court of the land issues a decision endorsing the right to a healthy environment—but in many cases we know little of their social consequences. The paucity of empirical work on the effectiveness of environmental law in developing countries should not come as a surprise. Kagan calls this the "social effects" agenda of sociolegal studies wherein the "goal is not to explain why laws and legal decisions vary, but to discover and assess what effect legal processes, in all their variations, actually have on social life."[156] As he explains, it is "easier and far less expensive" to study legal texts and decisions than their effects in society.[157]

Figuring out how to make environmental law work better in developing countries is an important task. My book, *Making Law Matter: Environmental Protection and Legal Institutions in Brazil*, analyzes the Brazilian mode of "prosecutorial enforcement" in which prosecutors play a central role in environmental enforcement. I find that prosecutorial enforcement succeeds in challenging longstanding notions of impunity; enhancing the accountability of environmental agencies; and strengthening citizen access to enforcement processes. It fails in the sense that prosecutors have not developed mechanisms to coordinate and prioritize their enforcement actions, they bring a degree of legalism to environmental enforcement that can be counterproductive, and their reliance on the judiciary introduces inefficiencies. I also find that prosecutors are not adequately accountable themselves, a situation which may lead to abuses of power. Despite these failures, I suggest that Brazilian prosecutorial enforcement serves as a model for enhancing the effectiveness of environmental law in other countries, particularly those with similar institutional and social contexts.

The subject of environmental regulation and enforcement in most developing countries remains intellectual *terra incognita*. A

154. McAllister, *supra* note 5, at 62, 94.

155. *Id.* at 93; *see also supra* note 56 and accompanying text.

156. Robert A. Kagan, *What Socio-Legal Scholars Should Do When There is Too Much Law to Study*, 22 J.L. & Soc'y 140, 144 (1995).

157. *Id.*

great deal of research is needed to work out the possible institutional arrangements and combinations of conditions that may favor the success of environmental law in different political and economic contexts. My book contributes toward launching this intellectual agenda. Aside from further research on the effectiveness of enforcement and compliance, promising avenues of inquiry include the study of the equity of environmental law and the relationships between environmental movement organizations and legal institutions. Methodologically, the comparative study of legal and regulatory institutions has much to offer. I believe that Professor Crawford and I agree that there is great potential for future research about environmental law and legal institutions in Brazil and other developing countries.