

# Introduction

## Advancing Comparative Climate Change Politics: Theory and Method

---

Mark Purdon\*

### Abstract

Central to this special issue is the notion that the methods and conceptual tools of comparative politics can improve our understanding of global climate change politics. Building on recent advancements in the field of comparative environmental politics, the special issues offers a more comprehensive treatment of climate change politics in developed countries, emerging economies and least developed countries. In this introduction, I distil the key features of comparative politics, advocate for the more rigorous application of comparative methods in climate politics scholarship and highlight three groups of political factors—institutions, interests and ideas—that hold considerable promise in explaining climate change politics at the domestic level. The introduction concludes with an appeal to (re)think how international and domestic politics interact. Examples drawn from the articles assembled for this special issue are used to substantiate the claims made.

Players and painted stage took all my love,  
And not those things that they were emblems of.

—WB Yeats, “The Circus Animals’ Desertion”

Central to this special issue is the notion that the methods and conceptual tools of comparative politics can improve our understanding of climate change politics. As a leading observer of climate policy recently put it, “Oddly, most studies of international coordination on global warming ignore national policy

\* I thank Catherine Boone for comments on earlier versions of this introduction as well as for assistance in managing and editing the special issue. The editors at *Global Environmental Politics* and two anonymous reviewers provided insights that greatly improved the manuscript. I also thank Catherine Boone and Tim Forsyth at the Department of International Development as well as Alina Averchenkova and Samuel Fankhauser at the Grantham Research Institute on Climate Change and the Environment for their support of a March 2014 workshop on these issues at the London School of Economics. Support of the Centre d’études et de recherches internationales (CÉRIUM) at the Université de Montréal, particularly Frédéric Mérand, was key to seeing this project through to completion. Funding for this special issue was provided through a postdoctoral fellowship awarded by the Canadian Social Sciences and Humanities Research Council.

and treat governments as ‘black boxes.’ Few analysts of international policy peer inside the box to discover how it works.”<sup>1</sup> Comparative politics helps us open these “black boxes.” Indeed, Harrison and Sundstrom made a similar argument in an earlier special issue of this journal,<sup>2</sup> and comparative approaches increasingly find expression in *Global Environmental Politics*.<sup>3</sup> This special issue extends comparative research to include investigation into climate change politics of developed countries, emerging economies and, particularly novel, least developed countries (LDCs)—which have received insufficient attention to date. This introduction provides some cohesion to a series of studies covering very different parts of the world and a range of issues.

Comparative climate change politics should be seen as a subset of comparative environmental politics. In a recent effort to consolidate the state of knowledge in this emerging field, Steinberg and VanDeveer argued that comparative environmental politics needs to better integrate comparative politics and environmental policy—two fields that have suffered from mutual disengagement—towards a doubly engaged research program.<sup>4</sup> Comparative politics themes that continue to have underexplored links to climate change and broader environmental issues include the literature on the role of the state and social conflict in processes of economic modernization,<sup>5</sup> the role of institutions in economic development,<sup>6</sup> and variation in the relationship between the state, markets, and society.<sup>7</sup> Three groups of political factors in the comparative politics literature— institutions, interests, and ideas—hold considerable promise in explaining domestic climate change politics. However, comparativists also need to become more deeply engaged with environmental policy literatures. Because of the urgency of climate change, most climate issues are investigated not simply to understand what is occurring but to identify opportunities for intervention and remediation.

While bringing together comparative politics and public policy is important, comparative climate change politics needs to go further—toward a *triply* engaged social science. The overarching theme of this special issue is a need to integrate research traditions of comparative politics, public policy, and international relations. Because climate change is politically salient, if not security relevant, in ways other global environmental problems are not,<sup>8</sup> research must retain an international dimension. Such a claim will not be lost on the *Global Environmental Politics* readership. In this introduction I hope to create a place for domestic politics in IR research related to climate change.

Important to this triple task is grappling with the unique epistemological and methodological challenges posed by the effort to drill research down to the

1. Victor 2011, 8.

2. Harrison and Sundstrom 2007, 2; also see Harrison and Sundstrom 2010.

3. Hayes J and Knox-Hayes 2014; Kim and Wolinsky-Nahmias 2014; Skjærseth et al. 2013; Szarka 2012; Young and Coutinho 2013.

4. Steinberg and VanDeveer 2012, 371–403.

5. Cardoso and Faletto 1979 [1969]; Huntington 1968; Moore 1993 [1966].

6. March and Olsen 1989; North 1995; Rodrik 2007; Sangmpam 2007.

7. Bates 2005 [1981]; Boone 2003b, 2013b, 2014; Kohli 2004; Popkin 1979; Scott 1976.

8. Purdon 2014b, 314–316; Victor 2011, 49–52.

domestic levels while considering global context. Comparative politics is known as a grounded, immersive and imperfectly positivist approach. In Evans' characterization, comparative politics is constituted by an "eclectic messy center" that "sees particular cases as the building blocks for general theories and theories as lenses to identify what is interesting and significant about particular cases."<sup>9</sup> Steinberg and VanDeveer situate comparative politics "between theoretical generalization and an appreciation for the importance of context."<sup>10</sup> Many comparativists traditionally defined themselves by their geographical areas of expertise—Latin America, Africa, or Eastern Europe, for example. Comparativists are often uncertain about making the types of global claims casually thrown about by IR scholars—and with good reason—the world is very complex. At the same time, we expect that an eager climate policy community wants to know how an explanation that works in one part of the world might work elsewhere. Political scientists new to the climate change arena may be surprised to learn how controversial such matters may be, given a long-established critical, non-positivist tradition in certain strains of geography and environmental studies. Two commentary pieces in this special issue, by Forsyth and Levidow and by Steinberg, initiate important dialogue on these thorny issues.

The key message emerging from this special issue is the need for research into climate change politics to extend beyond institutions and better address interests and ideas at the international, state and subnational levels. While all three factors are important for domestic climate change politics, many institutions are much easier to observe than interests and ideas; consequently, institutional analysis tends to be over-represented in domestic climate change literature.<sup>11</sup> Broadening political analysis to consider interests and ideas along with institutions improves the explanatory power of climate change politics. This also resonates with thinking about climate change politics internationally. It is increasingly clear that we need to move away from the continued fixation with the international climate change regime—"the players and painted stage"—and develop alternative IR theoretical approaches that leave more space for domestic politics. Neoliberal institutionalism may have been an appropriate strategy for understanding international climate change negotiations, but the climate change regime complex is now mature and complex enough that we should ask for more from IR theory.

In the next section I justify a turn towards comparative politics for climate change research and then make a brief foray into these epistemological and methodological issues. The bulk of this introduction is, however, dedicated to discussing institutions, interests and ideas as they relate to the papers in this special issue. The final section sketches out what a triply engaged climate change politics research program might look like, drawing on our special issue papers as examples.

9. Kohli et al. 1995, 4.

10. Steinberg and VanDeveer 2012, 9.

11. Biesbroek et al. 2013; Candel, 2014; Purdon, 2014c.

## Why the Comparative Turn in Climate Change Politics?

What justifies the turn towards comparative politics for climate change research? I identify four reasons.

First is increasing concern about neoliberal institutionalism as a theory capable of explaining and understanding global climate change politics, particularly given its assumptions about which domestic institutions, interests and ideas matter. In contrast to other issues of international politics, environmental regimes are “notably and increasingly focused on attempts to influence domestic practices, policies and policy-making processes rather than simply to constrain or modify the external behaviour of states.”<sup>12</sup> In other words, domestic politics are much more important to climate change politics than they are to security and international trade.

Nonetheless, neoliberal institutionalism has arguably been more interested in international institutions than domestic politics. Because all states stand to benefit from the prevention of dangerous climate change, neoliberal institutionalists tend to assume that states will eventually find it in their interest to cooperate to reduce emissions. International institutions would reveal the global, common interest. Neoliberal institutionalism thus grants international political processes greater causal weight than domestic politics in a state’s determination of what its interests are.<sup>13</sup> While neoliberal institutionalists have previously effectively combined international and domestic factors, such as in the study of international political economy,<sup>14</sup> IR scholars and climate policy practitioners tend to expect global climate accords and international institutions to produce uniform and standardized effects at the domestic level. A key message of this special issue is that state and subnational interests on climate change are much more varied.

The assumptions baked into neoliberal institutionalism can lead to questionable expectations about how climate change politics will unfold. One example is the theory that as countries become more economically developed and capable of taking action to mitigate to climate change, their interest in doing so will also emerge.<sup>15</sup> However, a recent comparative investigation by Ward, Cao, and Mukherjee suggests that rising capacity of authoritarian regimes results instead in worsening environmental outcomes.<sup>16</sup> Similarly, political economy preferences appear more important than state capacity for explaining the effectiveness of the Clean Development Mechanism (CDM), the international carbon offset mechanism of the Kyoto Protocol, with CDM projects more effectively reducing emissions in Uganda than in Tanzania—states with similar levels of capacity.<sup>17</sup> As the international climate change regime moves toward a more fragmented structure where national and subnational actors play a larger

12. Bernstein and Cashore 2012, 585.

13. Sterling-Folker 1997.

14. Milner 1988; 1997; Simmons 1994; Simmons et al. 2006.

15. Victor 2011, 11–12.

16. Ward et al. 2014.

17. Purdon, forthcoming 2015.

role,<sup>18</sup> there is a need to build greater understanding of how climate change politics work at the lower rungs of Sartori's ladder of political analysis.<sup>19</sup> What political factors at the domestic level might promote greater cooperation on climate protection? The bottom-up perspective of comparative politics affords intimate knowledge of domestic political and economic factors that are important in climate change politics yet may be underappreciated by the outside observer.

Second, comparative politics should be seen as a complement to recent climate change politics research focusing on transnational, non-state actors and multi-scalar climate governance.<sup>20</sup> However, while the identification of new actors beyond the international climate change regime is refreshing, the sheer number of actors identified in multi-scalar research necessitates some method of adjudicating between them. Yes, cities may be important climate actors, but which cities are more salient and why? While many transnational organizations and networks may be progressive on climate change, not all will be significant in terms of their actual effect on climate change politics and related climate policy outcomes. The risk with transnational research is that it might differ too little from neoliberal institutionalism—fixating not on institutions for inter-state cooperation but those for inter-city or inter-NGO cooperation. Arguably, insufficient effort has been placed on politics in the shadows and explaining the failure to cooperate.<sup>21</sup> For this reason, studies like that of Houle, Lachapelle, and Purdon, included in this issue of *GEP*, are unique in comparing California and Quebec, which have proceeded to establish North America's most comprehensive cap-and-trade system, with two other jurisdictions which have withdrawn from the process. As Gordon argues in a recent article in this journal, climate policy coordination is especially complex in federal systems.<sup>22</sup>

Third, comparative politics contrasts with neoliberal institutionalism and transnational research in attention given to the state. While comparative politics does not inherently privilege any particular unit of analysis, comparativists continue to appreciate "the enduring importance of domestic politics and the nation-state in particular."<sup>23</sup> The state has largely fallen through the cracks, given the "think globally, act locally" mantra of global environmentalism.<sup>24</sup> The state, however, is very important for undertaking policy-relevant research, given its important role in policy formulation and implementation. As has been observed elsewhere: "Despite the changes wrought by globalization, democratic

18. Asselt and Zelli 2014; Keohane and Victor 2011; Ostrom 2010; World Bank 2013.

19. Sartori 1970.

20. Andonova et al. 2009; Betsill and Bulkeley 2006; Bulkeley 2005; Bulkeley and Moser 2007; Bulkeley et al. 2014; Cashore et al. 2004; Conca 2012; Corell and Betsill 2001; Green 2013; Hakelberg 2014; Hoffmann 2011; Meckling 2011; Rabe 2007; Schreurs 2008; Toly 2008.

21. Strange 1983, 349.

22. Gordon 2015.

23. VanDeveer and Steinberg 2013, 154.

24. Steinberg and VanDeveer 2012, 14.

states still have more steering capacity and legitimacy to regulate the activities of corporations and other social agents along ecologically sustainable lines in more systematic ways than any non-state alternative."<sup>25</sup> It is time to bring the state back in.<sup>26</sup>

The papers assembled here demonstrate the continued relevance of the state for implementation of climate change policy. For example, Hochstetler and Kostka's study of renewable energy policy in Brazil and China shows how variation in fundamental relationships between state and business actors has led to very different renewable energy policy outcomes. Kashwan identifies jurisdictional and administrative differences between forest ministries in India, Tanzania and Mexico as important factors in explaining benefit-sharing arrangements being implemented for reducing deforestation and forest degradation (REDD+) initiatives. Similarly, Barrett demonstrates how changes in local political institutions in Kenya from decentralization to devolution, a shift ushered in by adoption of the 2010 Constitution, has led to different patterns of disbursement of adaptation funds. Finally, to the extent that Harrison's comparison involves a state and a subnational jurisdiction, her article indicates commonalities in terms of authority over climate policy across units ostensibly at different positions on the scale of climate governance.

But a final reason comparative politics is attracting more attention is a shift in academic interest from international climate policy negotiation to its implementation. Perhaps climate change negotiations will never be concluded, but nearly a decade since the Kyoto Protocol came into force, we have much to learn. Too much of the current literature on climate change politics has focused on policy *outputs*, international agreements and national policy announcements, rather than climate policy *outcomes* such as emission reduction trends.<sup>27</sup> For example, despite the attention the CDM has attracted, only a handful of studies seek to empirically evaluate the CDM's claims to generate genuine emission reductions.<sup>28</sup> Most such research relied on information presented in CDM project documents.<sup>29</sup> But these documents are at the heart of information asymmetries plaguing the CDM's regulation because they are produced by project developers themselves. Practical experience with REDD+ and other new international climate finance mechanism is limited to institutional outputs which, as Kashwan observes in his contribution, lends itself to superficial institutional analysis. Despite a decade of negotiation, REDD+ has not been fully implemented at the country-level

25. Barry and Eckersley 2005, xii, cited in Steinberg and VanDeveer 2012, 14–15. Also see Migdal (2009) for a recent discussion of the state in comparative research.

26. The state and variations in its form and capacity have been a key subject matter in comparative politics. See Migdal 2009; Evans et al. 1985; Krasner 1984; Boone 2003b; Herbst 2000; Grindle 2007.

27. Bättig and Bernauer 2009, 284.

28. Purdon forthcoming 2015; Purdon 2014a; Purdon and Lokina 2014; Wara 2008; Zhang and Wang 2011.

29. Alexew et al. 2010; Au Yong 2009; Ganapati and Liu 2008; He and Morse 2010; Michaelowa and Purohit 2007; Schneider 2007, 2011.

and to reduce emissions, aside from Brazil's largely unilateral efforts.<sup>30</sup> However, a focus on policy outputs is not simply a matter of the challenges of doing research in the developing world but indicative of broader research tendencies. Even recent reviews of climate policy in the developed world have found few studies of policy effectiveness as well as a general lack of cross-country comparative research.<sup>31</sup> It is time to look beyond policy outcomes and the institutions they often describe to explain climate change politics. With almost a decade of climate policy implementation behind us, it is possible to ask questions like: How do the political economy preferences of state elites shape the implementation of climate policy and institutions? Does variation in state–business relations explain differences in climate policy effectiveness? What's working and what's not? Where? Why? How? Answers to these questions will only be as good as the methods by which they are addressed, to which we now turn.

## The Importance of Comparative Methods

Recent innovations in comparative political methodology and philosophy of science have created opportunities to apply comparative methods to climate change issues.<sup>32</sup> Most important is new thinking about small-N and medium-N research. Such approaches are particularly helpful in new policy areas like climate change where, as noted above, there is often limited data available on policy performance for quantitative analysis. Better theory allows researchers to anticipate political behavior and make more effective and politically feasible policy recommendations. As Evans puts it, "The desire to predict is part of social science, not because we are positivists but because social scientists share with everyone else the desire to know what is likely to happen to them and how they might be able to improve prospective outcomes."<sup>33</sup> Consequently, political scientists have tended to take the epistemological and methodological challenges of positivism quite seriously.<sup>34</sup>

The use of small-N and medium-N research for theory testing is a departure from King, Keohane, and Verba,<sup>35</sup> who privileged quantitative methods—particularly regression analysis—as the most appropriate model for understanding and evaluating qualitative methods.<sup>36</sup> That is, a previous generation of political science conceived of causality in terms of likelihoods and probabilities, with quantitative approaches superior. In contrast, new comparative methods conceive causality in logical terms of necessary and/or sufficient conditions,

30. UN-REDD 2014.

31. Haug et al. 2010; Rykkja et al. 2014.

32. Engeli and Rothmayr 2014; O'Neill et al. 2013; Flyvbjerg 2006; George and Bennett 2005; Lichbach 2009; Mahoney 2007, 2008, 2010; Marx et al. 2014; Ragin 1987.

33. Stockemer 2013; Collier 2014.

34. Kohli et al. 1995, 3.

35. Bernstein et al. 2000; Daniel and Smith 2010; Grynawski 2013; Jackson 2011; Pouliot 2007; Wendt 1998; Cohen and Wartofsky 2010; Lichbach 2009; Yanow 2014.

36. King et al. 1994.

which opens up opportunities for small-N and medium-N research. It is beyond the scope of this introduction to delve too deeply into these issues. Fortunately, in his commentary to this special issue, Paul Steinberg provides a detailed overview of various debates in comparative methods and, more importantly, he applies them to five empirical research articles that comprise this special issue.

As acknowledged by others,<sup>37</sup> the research effort to date in domestic climate change politics has largely been comprised of single case-studies and description.<sup>38</sup> While mindful of the benefits of single case studies for producing important descriptive knowledge and generating hypotheses,<sup>39</sup> they lack comparisons necessary for addressing larger issues of causality and theory generation. And while large-N research would be helpful for greater understanding of domestic climate change politics, there is a dearth of data on climate policy outcomes appropriate for such analysis. For the moment we need to work with what information is available: "Policymakers and others working in the public interest want to learn about the art of the possible, and the risk of the unthinkable, not just the trend line of the probable."<sup>40</sup> This explains why the research articles that comprise this special issue are all small-N and medium-N comparative analyses, or comparative analysis of a single unit over time.

While still controversial,<sup>41</sup> small-N approaches such as process tracing and medium-N approaches including qualitative comparative analysis are increasingly accepted as methods of theory generation if not causal testing. Such comparison can extend across units or also, as Barrett demonstrates in his study here of Kenya adaptation policy before and after 2010 constitutional reforms, over time in the same unit. Nor are states the only political unit worthy of comparative political analysis; Corell and Betsill compared NGO influence on UN regimes for desertification and climate change.<sup>42</sup> Nor should the above be construed as a critique of quantitative methods and large-N studies. Such approaches have long offered important predictive power.<sup>43</sup> But it is handy to have an expanded toolkit, especially for research into domestic climate change politics where data appropriate for quantitative research are largely lacking. Systematic comparison allows scholars to respond to questions like: Which variables are really important? When? And under what conditions?

Before proceeding, it is important to step back and reflect on the epistemological and methodological approach I have sketched above. As Forsyth and Levadow demonstrate in their contribution, the positivist project is not without controversy. Their contribution to this special issue is unique in that it represents a bridge between comparative politics and other social science disciplines,

37. Mahoney 2010.

38. Cao et al. 2014, 293; Steinberg and VanDeveer 2012.

39. For example of descriptive studies, see Bailey and Compston 2012; Desai 2002; Held et al. 2013.

40. McKeown 1999.

41. Steinberg 2007, 185.

42. Breunig and Ahlquist 2014.

43. See Corell and Betsill, 2001.



particularly certain strands of geography and science and technology studies, which have long been engaged with issues of climate change politics but have been much more circumspect about positivism. It is beyond the scope of this introduction to delve into the debate between positivists and non-positivists.<sup>44</sup> While I believe we should be vigilante to avoid treating the political universe as a complex set of billiard balls, a close read of Forsyth and Levidow's paper also suggests that positivism's claims of predictive power are less problematic than is the lack of analytical clarity about what is being compared. The objection Forsyth and Levidow raise about the findings of the so-called Green Growth Best Practice Initiative will likely resonate with comparativists: that the Green Economy Initiative does not appear to be a viable analytical category that can be meaningfully compared across countries.<sup>45</sup> The importance of clearly defining analytical categories is worth repeating. However, I leave it to the reader to decide if the stronger claim of non-positivist, interpretive analysis should hold: that political concepts and social processes are so location specific—"what is being learned are the specific, local meanings"<sup>46</sup>—that they cannot be generalized beyond the immediate case at hand. Ultimately, such hyper-local, non-positivist research stymies theory building and hence policy-relevant research.

Arguably, the most important contribution of comparative politics is to offer sharper analytical distinctions that allow us to understand when such differences are genuine. For example, in this issue, Harrison describes the unique climate politics playing out among low-carbon fossil fuel exporters, an underappreciated analytical type. Houle, Lachapelle, and Purdon distinguish ideas surrounding anthropogenic global warming and cap-and-trade policy from interests surrounding unconventional natural gas fracking and how these have evolved and shaped the implementation of cap-and-trade among US states and Canadian provinces. Hochstetler and Kostka describe how different forms of state-business relations—"state corporatist" and "public-private partnerships"—help explain renewable energy outcomes in China and Brazil. Kashwan distinguishes between "institutional" and "power-centric" analyses of REDD+. Finally, Barrett decomposes the implementation of adaptation spending in Kenya under "decentralized" and then "devolved" subnational institutions. All of this analytical work is done with attentiveness to local conditions that, I believe, addresses concerns of interpretive analysts. Arguably we cannot avoid making such analytical judgments—indeed, Dupuis and Biesbroek raise a red flag about the "dependent variable problem" associated with research into climate change adaptation policy.<sup>47</sup> However, as Forsyth and Levidow's piece suggests, comparativists have much work yet to do in order to see such analytical distinctions adopted by climate policy practitioners. Below I sketch

44. Cf. see Cohen and Wartofsky 2010; Yanow 2014.

45. Forsyth and Levidow, this issue.

46. Yanow 2014, 145.

47. Dupuis and Biesbroek 2013.

out three groups of salient political factors that can assist in such analytical distinctions.

### **Domestic Political Factors: Institutions, Interests, and Ideas**

The organization of comparative politics into three groups of political factors—institutions, interests and ideas—is often attributed to Hall,<sup>48</sup> though it follows the broad contours of political science. For example, Lichbach and Zuckerman distinguish between rationality, culture, and structure in their well-received book on comparative politics,<sup>49</sup> while IR is often organized into realism, neoliberal institutionalism, liberalism, and constructivism. There are surely other nuances to the organization of the field of comparative politics. However, in contrast to IR, inter-paradigmatic debates are far less contentious in comparative politics, and it is rare to see one group of political factors held in higher esteem than the others.<sup>50</sup> Rather, highlighting the diversity of political phenomena being investigated, comparative research often seeks to identify a certain combination of institutions, interests, and ideas to explain outcomes.

The problem is that institutions, particularly formal institutions, are more readily observable than interests and ideas. This is particularly problematic for research undertaken in emerging economies and LDCs by climate policy experts, many of whom lack local knowledge, language skills, or historical awareness and too often have pre-conceived notions about the importance of formal institutions drawn from their experience in the developed world. Consequently, institutional analysis dominates much climate change politics research at the state and subnational levels, as neoliberal institutionalism has at the international level. We need to consider interests and ideas along with institutions at the international, state, and subnational levels.

#### *Institutions*

Institutions are often the point of departure for domestic climate change research. Institution-oriented approaches to comparative politics “generally locate the primary causal factors behind economic policy or performance in the organizational structures of the political economy.”<sup>51</sup> Institutions produce a distinctive combination of sanctions and incentives that shape patterns of political influence and organization, and lead political and economic actors toward

48. Hall 1997.

49. Lichbach and Zuckerman 2009.

50. Lichbach 2009. While observing that much comparativist research has moved beyond paradigmatic debates, Lichbach also sees benefit of friction between paradigms, which undoubtedly warrants further research.

51. Hall 1997, 180.

some kinds of behavior and away from others. North famously defined institutions as humanly devised constraints that shape human action, while March and Olsen highlighted the role institutions play in constituting what political actors believe is appropriate behavior.<sup>52</sup>

In industrialized countries, where bureaucracy often bears some resemblance to the Weberian ideal type, analysts can often observe formal institutions playing this role. However, in the developing world, the role of formal institutions may diverge quite significantly and systematically from these expectations.<sup>53</sup> This does not mean that the state is absent, or that informality or anarchy rules. For example, while rural Africa is often considered beyond the reach of the state,<sup>54</sup> comparative research demonstrates that the state actually has a definite institutional presence that shapes subnational politics and local policy implementation in broadly predictable ways.<sup>55</sup> Ostrom convincingly demonstrated that effective institutional solutions to the management of common property resources are prevalent in the industrialized and developing worlds alike.<sup>56</sup> Ostrom's work left a considerable impression on the field of comparative politics.<sup>57</sup>

In this light, studies in this special issue that tie variation in institutional forms to policy outcomes are especially illuminating. Hochstetler and Kostka demonstrate how different state–business relationships have been institutionalized in Brazil and China, leading to different policy outcomes in renewable energy development. Barrett demonstrates that devolved local-level political institutions in Kenya better ensure that local needs remain the priority of adaptation finance. Barrett's contribution is particularly important in demonstrating that the interests of powerful local actors and related patron-client relations, too readily associated with sub-Saharan Africa,<sup>58</sup> can be tempered by institutional changes.

However, until relatively recently, few studies extended beyond the formal institutional structures of the climate change regime itself. For example, the literature on REDD+ is replete with institutional design analysis.<sup>59</sup> The risk here is to reduce climate policy to formal institutional change identified through international negotiators operating on the assumption that national and subnational bureaucracies conform to the Weberian ideal type. Kashwan finds that variation in benefit-sharing mechanisms for REDD+ across Mexico, Tanzania, and India is not well explained through institutional analysis; rather, consideration of the

52. North 1990, 3; March and Olsen 1989.

53. Sangmpam 2007.

54. Herbst 2000.

55. Boone 2003b, 2013, 2014.

56. Ostrom 1990; Ostrom et al. 2002; Poteete et al. 2010.

57. See Agrawal 2012 for a summary of Ostrom's legacy for comparative politics; also see Forsyth and Johnson 2014 for a critique.

58. Mkandawire 2013.

59. Baker and McKenzie Law 2009; Costenbader 2011; Doherty and Schroeder 2011; Minang and van Noordwijk 2013; Norton Rose Fulbright 2012.

checks and balances between different parts of the government and the history of state is more illuminating. Lessons drawn from the comparative politics and comparative institutions tradition of research on decentralized natural resource management, forest management, and conservation further show how misleading the assumptions of formal institutional analysis can be.<sup>60</sup>

Nor are institutions in developed countries always the most salient factor. For example, Houle, Lachapelle, and Purdon find that institutional differences—particularly differences in national political systems (presidential versus parliamentary systems)—play only a tertiary role relative to material interests and ideational context in explaining implementation of cap-and-trade in North America. Overall, studies that only consider institutions stop at the water's edge; we need to wade deeper into the political analysis to consider interests and ideas as well.

### *Interests*

Interests are considerably more difficult to observe than institutions. As used in the comparative politics literature, interests refer to what Hall defines as the “real, material interests of the principal actors, whether conceived as individuals or groups.”<sup>61</sup> The key message here is the enormous variation in interests at the state and subnational levels, particularly more so than imagined in mainstream IR. For climate policy, the material interests at play typically have to do with variation in costs and benefits of various policy actions across actors, tensions between political and economic objectives, trade-offs between short- and long-term effects, and geographical variation in who wins and who loses.

One key difference between the industrialized and developing worlds is the principal actors whose interests are salient in the political process.<sup>62</sup> In the industrialized world, the political economy is largely the product of the relationship between (and within) the state, market actors, organized interest groups, and political organizations (like political parties). One stream of this literature seeks to explain political and economic change by paying attention to shifts in the material interests affecting different coalitions of economic and social actors; a second focuses on elections and voting behavior, with the assumption that the primary interest of politicians is to stay in power.<sup>63</sup> In both arenas, research based on assumptions of rational choice and cost-benefit methods have prevailed—including classic studies of international climate change policy.<sup>64</sup> Papers assembled in this special issue from industrialized

60. Agrawal and Ribot 1999; Boone 2003a; Gibson, 1999; Kanowski et al. 2011; Muhereza 2006; Oyono 2004a and 2004b; Ribot 2004; Wollenberg et al. 2007.

61. Hall 1997, 176.

62. Though of course recognizing that such a simple distinction between industrialized and developing countries is becoming increasingly unmanageable. For example, see Terhalle and Depledge 2013.

63. Hall 1997, 176–179.

64. Aldy et al. 2003; Barrett 1998; Barrett and Stavins 2003.

countries indicate the continued relevancy of material interests. The analysis of participation in the Western Climate Initiative by Houle, Lachapelle, and Purdon demonstrate that the exploitation of shale gas, as yet ineluctably linked with increased emissions, has prevented states and provinces that flirted with cap-and-trade systems from following through with implementation. Harrison shows, however, that not all fossil fuel exploitation is at odds with progressive climate action. When the exploitation of fossil fuel is itself not particularly emissions intensive and undertaken largely for export, the economic interests of resource-rich states can go hand-in-hand with progressive climate action.

In the developing world, the state is often unevenly institutionalized and permeable in less obvious and predictable ways, and so it is useful to discuss interests among the state and its subagencies, markets, and society.<sup>65</sup> The relationship between groups of actors is complex, often involving competing political factions rooted in societal interests that may remain opaque to outside observers. Khan describes such dynamics through the concept of *political settlements*—“a combination of power and institutions that is mutually compatible and also sustainable in terms of economic and political viability”<sup>66</sup>—while Kohli uses the term *state power for development* to describe variation in the technical characteristics of state institutions and the manner in which states craft their relations with social classes.<sup>67</sup> As both authors show, enormous variation in these political economy relationships exists across countries: consider the dense, multiple networks of patron-client relations in India in comparison to the privileged position of the state in South Korea.

Where institutions are weak and political order is fragile, such as in LDCs, the analytic task is further complicated.<sup>68</sup> While LDCs arguably have the most at stake in global climate change politics given their relative vulnerability and lower resilience, it should not be assumed that domestic actors will automatically prioritize climate action or see participation in international regimes as in their best interests. For example, Resnick et al. criticize recent “Green Growth” initiatives in the developing world, observing that “when trying to scale up to a national development strategy, green growth poses more trade-offs than is readily acknowledged.”<sup>69</sup> Others have focused on the in-country distribution of costs and gains of implementing climate change mitigation, arguing for more systematic accounting of the rights, needs, and political weight of potential losers.<sup>70</sup> In this special issue, Kashwan demonstrates how REDD+ benefit-sharing schemes are determined more by bureaucratic interests and the administrative legacies of colonial regimes rather than the weak institutional arrangements promoted by the UNFCCC—often denoted as “safeguards” in climate policy circles. As

65. Migdal 1988 and 2009.

66. Khan 2010, 4.

67. Kohli 2004, 21.

68. Boone 2003b, 2007, 2013, 2014; Ribot 2004.

69. Resnick et al. 2012, 216.

70. Chhatre and Agrawal 2009; Purdon 2013; Ribot et al. 1996; Unruh 2008.

suggested above, Barrett's piece brilliantly shows that opaque adaptation policy in sub-Saharan Africa is not beholden to opaque interests and that vulnerable communities are more likely to receive allocations of adaptation finance in devolved political systems.

However, as the pieces in this issue show, the interests at play in climate change politics can be more complex than much of the international climate policy literature suggests. It is important to embrace this complexity and not diminish it. Questioning evidence marshalled by international organizations about the global acceptance of green growth as a development strategy on the ground, Forsyth and Levidow urge us to be vigilant and look for real evidence of the transition in economic investments and behavior that climate change will require. This is because climate change and climate policy are but two of many factors that affect the aggregate interests of any state, societal or market actor. However, the way that many political analysts tend to think about international climate politics—particularly through the prism of neoliberal institutionalism—lead them to overlook such variation in domestic interests if not assume that interests are united. Before discussing international politics, however, we still need to attend to the last domestic political factor: ideas.

### *Ideas*

One of the most cutting-edge areas of political science is the causal or, perhaps more appropriately, constitutive role of ideas in politics.<sup>71</sup> The concept of "ideas" often includes concepts and knowledge including science, development and legitimacy, as well as inherited practices deployed almost without thinking, such as culture.<sup>72</sup>

Indeed, even more so than in other areas of international politics, scientific ideas would be expected to play an important role in climate change politics and other environmental issues.<sup>73</sup> Particularly in the industrialized world, public opinion polling sheds considerable light on how climate change is perceived by broad segments of the electorate.<sup>74</sup> However, the conclusion emerging from the political science literature is that climate science has not been as effective in driving change as necessary because of the different ways that scientific ideas become politicized as well as the material interests at play.<sup>75</sup>

Moving forward, the real challenge is to understand the interaction between ideas about climate science and other, competing ideas that have impact on the domestic side of international climate politics. As Bradford explains, "[n]ew ideas are a 'necessary' condition for launching policy innovation, but they are not 'sufficient' in consolidating change...Rather, in order for new ideas to progress

71. Wendt 1998.

72. Bernstein, 2005; Haas 1992; Hall 1989; Pouliot 2008.

73. Haas 1992.

74. Brulle et al. 2012; Lachapelle et al. 2012; Leiserowitz 2007.

75. Grundmann 2007; Miller 2004; Purdon 2014b; Victor 2011.

they must ‘work on’ interests to realign the policy goals of collective actors, and they must ‘work through’ organizations to transform policy-making routines and state capacities.”<sup>76</sup> Among the papers assembled for this special issue, climate science appears a salient political factor within industrialized countries and prevails in driving climate action only when this is not incompatible with a state’s economic interests.<sup>77</sup>

The most obvious set of ideas competing with climate science are those about how the economy works and how it should be manipulated to achieve traditional economic goals such as growth and reduced inequality.<sup>78</sup> As explained by Darden, political actors draw in part on their stock of ideas about the causal relationship between economic phenomena—whether objectively true or not—when determining economic policy.<sup>79</sup> Differences in economic ideas, tensions between economic and political beliefs, or tensions between short- and long-term visions of the future might shape the motivations of state agents and the bureaucracy. These differences might mean that a type of climate policy that works in a country with a strong affinity for market-based policy may not work in a country with more socialist or dirigiste traditions.

State and political legitimacy can also be important in the making and implementation of climate policy, as it is in economic policy.<sup>80</sup> While legitimacy has been a considerable topic of research into global environmental politics,<sup>81</sup> it has only recently been considered at the domestic and subnational level.<sup>82</sup> Notions of climate justice can also be assumed to have an effect on domestic climate change politics,<sup>83</sup> whether in terms of policy implementation or in terms of contribution of financial resources for international climate efforts. The key is to understand variation in ideas that might combine or compete with those calling for climate action and its particular policy forms.

## Towards a Triply Engaged Climate Change Politics

While research into climate change politics increasingly engages the classic repertoires of comparative politics and public policy, it remains necessary to (re)think how international and domestic politics interact. The relevance of international political context for domestic politics and vice versa has an important tradition in IR.<sup>84</sup> Arguably, the distinction between comparative politics and IR is increasingly untenable;<sup>85</sup> a recent special issue of the journal *Comparative*

76. Bradford 1999, 18.

77. See Houle et al. and Harrison, both in this issue.

78. Darden 2009; Hall 1989.

79. Darden 2009, 10.

80. Lipset 1959; Taylor 2002; Weede 1996.

81. Bernstein 2005.

82. Brown and Lassoie 2010.

83. Harris and Symons 2010; Ikeme 2003; Maltais 2008.

84. Gourevitch 1978; Putnam 1988.

85. Solingen 2009.

*Political Studies* focused on research frontiers in comparative and international environmental politics.<sup>86</sup> There is currently an opportunity to improve our understanding of climate change politics by taking domestic politics seriously, including them in recent efforts to integrate neoliberal institutionalism and transnational politics.<sup>87</sup> A triply engaged climate change politics research program would be concerned with how climate change politics plays out on the ground, but with expectations calibrated with understanding of how difficult the international political context can be. It is often difficult to make sense of climate change issues at any scale without at least casting an eye to the international level.

To different degrees, all contributions to this special issue include important international dimensions. The importance of international politics can be appreciated through Harrison's discovery of the unlikely harmony of interests between fossil fuel exporters and climate action—which is only possible because the UNFCCC assigns responsibility for fossil fuel emissions to the country in which they are burned rather than where they are mined.<sup>88</sup> The emergence of American states and Canadian provinces as motors of climate policy in North America, as discussed by Houle, Lachapelle, and Purdon, is in large part due to the lack of federal leadership on these issues in the US and Canada. In Hochstetler and Kostka's study of renewable energy policy in China and Brazil, international political economy factors—notably the extent to which any one country or region could monopolize the sector—permitted China to dominate the solar industry but made wind power more permeable. While the international climate change regime is not the focus of Kashwan's study of REDD+, there is palpable frustration with domestic institutions for REDD+ designed through UN climate change negotiations, which appear out of touch with political realities on the ground. In a research effort that foreshadowed the triply engaged research program suggested here, Barrett's study of adaptation policy implementation in Kenya is part of a larger research effort that includes the international politics of climate change adaptation.<sup>89</sup> Across the studies in this issue, international climate change politics has left an indelible mark.

However, as important as the international level is for explaining and understanding climate change politics, it cannot dominate or determine politics at other levels. A triply engaged climate change politics may require alternatives to neoliberal institutionalism and current transnational theory. It is important to recognize that there are ways of conceiving international climate change politics that leave more space for domestic politics, including classic liberalism and neo-classical realism.<sup>90</sup> The appeal of these alternative theories is that they anticipate that state and subnational political behavior in light of climate change may be

86. Cao et al. 2014.

87. Betsill et al. 2015; Risse 2007.

88. Harrison, this issue.

89. Barrett 2012.

90. Bailer 2012; Hochstetler and Viola 2012; Purdon, 2014b.



shaped by a number of factors—institutions, interests and ideas—none of which might be easily assumed away. The promise of comparative politics for international climate change research is that it will prompt scholars to rigorously develop and test theories of political behavior that can allow us to explain and understand political behavior across subnational, state and international levels.

## Conclusions

Ahead of (and beyond) the UN climate change summit in Paris later in 2015, a different perspective on climate change politics is much needed. Recent UN climate change negotiations themselves point to the weakness of international institutions and the need for a bottom-up approach. As one observer succinctly described the outcome of the 2014 UN climate change conference:

The freshly struck agreement, the Lima Accord, sends the obligation of devising a plan to cut carbon emissions back to the nations' capitals — and its success or failure rests on how seriously and ambitiously the parliaments, congresses and energy, environment and economic ministries of the world take the mandate to create a new policy.<sup>91</sup>

We need to rapidly develop capabilities to explain and understand “how seriously and ambitiously” political actors at the low rungs of Sartori’s ladder of abstraction<sup>92</sup> take climate change. Yeats reaches a similar conclusion in the poem that opens this introduction: “Now that my ladder’s gone, I must lie down where all the ladders start/In the foul rag and bone shop of the heart.”

A triply engaged climate politics research program that integrates the theory and methods of comparative politics into existing research efforts in environmental policy and international relations will challenge researchers to build and verify theory that links domestic and international climate change politics in order to provide realistic policy recommendations. At its best, such research will bring positivist and non-positivist research traditions into dialogue with one another. As a point of departure, the contributions assembled for this special issue demonstrate that, while international and domestic level institutions will remain important for climate change politics, there is value in moving beyond institutional analysis to include interests and ideas as well.

## References

Agrawal, A. 2012. Local Institutions and the Governance of Forest Commons. In *Comparative Environmental Politics: Theory, Practice, and Prospects*, edited by Paul F. Steinberg and Stacy D. VanDeveer, 313–340. Cambridge, MA: MIT Press.

91. Davenport, C. A Climate Accord Based on Global Peer Pressure. *The New York Times*, December 14, 2014.

92. Sartori 1970.

- Agrawal, A., and J. Ribot. 1999. Accountability in Decentralisation: A Framework with South Asian and West African Cases. *Journal of Developing Areas* 33: 473–502.
- Aldy, J.E., S. Barrett and R.N. Stavins. 2003. Thirteen plus one: a comparison of Global Climate Policy Architectures. *Climate Policy* 3: 373–397.
- Alexeew, J., L. Bergset, K. Meyer, J. Petersen, L. Schneider and C. Unger. 2010. An Analysis of the Relationship between the Additionality of CDM projects and Their Contribution to Sustainable Development. *International Environmental Agreements: Politics, Law and Economics* 10: 233–248.
- Andonova, L.B., M.A. Betsill and H. Bulkeley. 2009. Transnational Climate Governance. *Global Environmental Politics* 9: 52–73.
- Asselt, H. and F. Zelli. 2014. Connect the dots: managing the fragmentation of Global Climate Governance. *Environmental Economics and Policy Studies* 16: 137–155.
- Au Yong, H.W. 2009. *Investment Additionality in the CDM*. Edinburgh: Econometrica.
- Bailer, S. 2012. Strategy in the Climate Change Negotiations: Do Democracies Negotiate Differently? *Climate Policy* 12: 534–551.
- Bailey, I. and H. Compston. 2012. *Feeling the Heat: The Politics of Climate Policy in Rapidly Industrializing Countries*. London: Palgrave MacMillan.
- Baker and McKenzie Law. 2009. *Background Analysis of REDD Regulatory Frameworks*. Sydney & Melbourne: Baker & McKenzie Law.
- Barrett, S. 1998. Political Economy of the Kyoto Protocol. *Oxford Review of Economic Policy* 14: 20–39.
- Barrett, S. 2012. The Necessity of a Multiscalar Analysis of Climate Justice. *Progress in Human Geography* 37: 215–233.
- Barrett, S. and R. Stavins. 2003. Increasing participation and compliance in International Climate Change Agreements. *International Environmental Agreements: Politics, Law and Economics* 3: 349–376.
- Bates RH. 2005 [1981]. *Markets and States in Tropical Africa: The Political Basis of Agricultural Policies*. Berkeley: University of California Press.
- Bättig, M.B. and T. Bernauer. 2009. National Institutions and Global Public Goods: Are Democracies More Cooperative in Climate Change Policy? *International Organization* 63: 281–308.
- Bernstein, S., R.N. Lebow, J.G. Stein and S. Weber. 2000. God gave physics the Easy Problems: Adapting Social Science to an Unpredictable World. *European Journal of International Relations* 6: 43–76.
- Bernstein, S. 2005. Legitimacy in Global Environmental Governance. *Journal of International Law & International Relations* 1: 139–166.
- Bernstein, S. and B. Cashore. 2012. Complex Global Governance and Domestic Policies: Four Pathways of Influence. *International Affairs* 88: 586–604.
- Betsill, M.M. and H. Bulkeley. 2006. Cities and the Multilevel Governance of Global Climate Change. *Global Governance* 12: 141–159.
- Betsill, M., N.K. Dubash, M. Paterson, H. van Asselt, A. Vihma and H. Winkler. 2015. Building Productive Links between the UNFCCC and the Broader Global Climate Governance Landscape. *Global Environmental Politics* 15 (2): 1–10.
- Biesbroek, G.R., C.J. Termeer, J.E. Klostermann and P. Kabat. 2013. Analytical Lenses on Barriers in the Governance of Climate Change Adaptation. *Mitigation and Adaptation Strategies for Global Change*: 1–22.
- Boone, C. 2003a. Decentralization as Political Strategy in West Africa. *Comparative Political Studies* 36: 355–380.

- Boone, C. 2003b. *Political Topographies of the African State: Territorial Authority and Institutional Choice*. Cambridge: Cambridge University Press.
- Boone, C. 2007. Property and Constitutional Order: Land Tenure Reform and the Future of the African State. *African Affairs* 106: 557–586.
- Boone, C. 2013. Land Regimes and the Structure of Politics: Patterns of Land-Related Conflict. *Africa* 83: 188–203.
- Boone, C. 2014. *Property and Political Order in Africa: Land Rights and the Structure of Politics*. Cambridge: Cambridge University Press.
- Bradford, N. 1999. The Policy Influence of Economic Ideas: Interests, Institutions and Innovation in Canada. *Studies in Political Economy* 59: 17–60.
- Brown, H.C.P. and J.P. Lassoie. 2010. Institutional choice and local legitimacy in Community-Based Forest Management: Lessons from Cameroon. *Environmental Conservation* 37: 261–269.
- Breunig, C., and J.S. Ahlquist. 2014. Quantitative Methodologies in Public Policy. In *Comparative Policy Studies: Conceptual and Methodological Challenges*, edited by I. Engeli and C.A. Rothmayr, 109–130. New York: Palgrave Macmillan.
- Brulle, R.J., J. Carmichael and J.C. Jenkins. 2012. Shifting public opinion on Climate Change: An Empirical Assessment of Factors Influencing Concern over Climate Change in the US, 2002–2010. *Climatic Change* 114: 169–188.
- Bulkeley, H. 2005. Reconfiguring Environmental Governance: Towards a Politics of Scales and Networks. *Political Geography* 24: 875–902.
- Bulkeley, H. and S.C. Moser. 2007. Responding to Climate Action: Governance and Social Action Beyond Kyoto. *Global Environmental Politics* 7: 1–10.
- Bulkeley, H., L. Andonova, M.M. Betsill, D. Compagnon, T. Hale, M.J. Hoffmann, P. Newell, M. Paterson, C. Roger and S.D. VanDeveer. 2014. *Transnational Climate Change Governance*. Cambridge: Cambridge University Press.
- Candel, J.L. 2014. Food Security Governance: A Systematic Literature Review. *Food Security* 6 (4): 1–17.
- Cao, X., H.V. Milner, A. Prakash and H. Ward. 2014. Research Frontiers in Comparative and International Environmental Politics: An Introduction. *Comparative Environmental Politics* 47: 291–308.
- Cardoso, F. and E. Faletto. 1979 [1969]. *Dependency and Development in Latin America*. Berkeley: University of California Press.
- Cashore, B., G. Auld and D. Newsom. 2004. *Governing through Markets: Forest Certification and the Emergence of Nonstate Authority*. New Haven: Yale University Press.
- Chhatre, A., and A. Agrawal. 2009. Trade-offs and Synergies between Carbon Storage and Livelihood Benefits from Forest Commons. *Proceedings of the National Academy of Sciences* 106: 17667–17670.
- Cohen, R.S. and M.W. Wartofsky. 2010. *Epistemology, Methodology, and the Social Sciences*. Amsterdam: Springer Netherlands.
- Collier, D. 2014. Problematic Tools: Introduction to Symposium on Set Theory in Social Science. *Qualitative & Multi-Method Research* 12: 2–9.
- Conca, K. 2012. The Rise of the Regional in Global Environmental Politics. *Global Environmental Politics* 12: 127–133.
- Corell, E. and M.M. Betsill. 2001. A Comparative Look at NGO Influence in International Environmental Negotiations: Desertification and Climate Change. *Global Environmental Politics* 1: 86–107.

- Costenbader, J., ed. 2011. *Legal Frameworks for REDD: Design and Implementation at the National Level*. Gland, Switzerland: IUCN.
- Daniel, J.F. and B. Smith. 2010. Statesmanship and the Problem of Theoretical Generalization. *Polity* 42: 156–184.
- Darden, K.A. 2009. *Economic Liberalism and Its Rivals: the formation of International Institutions among the Post-Soviet States*. Cambridge: Cambridge University Press.
- Desai, U., ed. 2002. *Environmental Politics and Policy in Industrialized Countries*. Cambridge, MA: MIT Press.
- Doherty, E. and H. Schroeder. 2011. Forest Tenure and Multi-level Governance in Avoiding Deforestation under REDD+. *Global Environmental Politics* 11: 66–88.
- Dupuis, J. and R. Biesbroek. 2013. Comparing apples and Oranges: The Dependent Variable Problem in Comparing and Evaluating Climate Change Adaptation Policies. *Global Environmental Change* 23: 1476–1487.
- Engeli, I. and C.A. Rothmayr, eds. 2014. *Comparative Policy Studies: Conceptual and Methodological Challenges*. New York: Palgrave Macmillan.
- Evans, P.B., D. Rueschemeyer and T. Skocpol, eds. 1985. *Bringing the State Back In*. New York: Cambridge University Press.
- Flyvbjerg, B. 2006. Five Misunderstandings about Case-Study Research. *Qualitative Inquiry* 12: 219–245.
- Forsyth, T. and C. Johnson. 2014. Elinor Ostrom’s legacy: Governing the Commons, and the Rational Choice Controversy. *Development and Change* 45: 1093–1110.
- Ganapati, S. and L.G. Liu. 2008. The Clean Development Mechanism in China and India: A Comparative Institutional Analysis. *Public Administration and Development* 28: 351–362.
- George, A.L. and A. Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA: MIT Press.
- Gibson, C. 1999. *Politicians and Poachers: The Political Economy of Wildlife Policy in Africa*. Cambridge: Cambridge University Press.
- Gordon, D.J. 2015. An Uneasy Equilibrium: The Coordination of Climate Governance in Federated Systems. *Global Environmental Politics* 15 (2): 121–141.
- Gourevitch, P. 1978. The Second Image Reversed: The International Sources of Domestic Politics. *International Organization* 32: 881–912.
- Green, J. 2013. *Rethinking Private Authority: Agents and Entrepreneurs in Global Environmental Governance*. Princeton: Princeton University Press.
- Grindle, M.S. 2007. Good Enough Governance Revisited. *Development Policy Review* 25: 553–574.
- Grundmann, R. 2007. Climate Change and Knowledge Politics. *Environmental Politics* 16: 414–432.
- Grynawiski, E. 2013. Contrasts, Counterfactuals, and Causes. *European Journal of International Relations* 19: 823–846.
- Haas, P. 1992. Banning chlorofluorocarbons: epistemic communities efforts to Protect Stratospheric Ozone. *International Organization* 46: 187–224.
- Hakelberg, L. 2014. Governance by Diffusion: Transnational Municipal Networks and the Spread of Local Climate Strategies in Europe. *Global Environmental Politics* 14: 107–129.
- Hall, P.A. 1989. *The Political Power of Economic Ideas: Keynesianism across Nations*. Princeton: Princeton University Press.

- Hall, P.A. 1997. The Role of Interests, Institutions and Ideas in the Comparative Political Economy of the Industrialized Nations. In *Comparative Politics: Rationality, Culture and Structure*, edited by M.I. Lichbach and A.S. Zuckerman, 174–207. Cambridge: Cambridge University Press.
- Harris, P.G. and J. Symons. 2010. Justice in adaptation to Climate Change: Cosmopolitan Implications for International Institutions. *Environmental Politics* 19: 617–636.
- Harrison, K. and L.M. Sundstrom. 2007. The Comparative Politics of Climate Change. *Global Environmental Politics* 7: 1–18.
- Haug, C., T. Rayner, A. Jordan, R. Hildingsson, J. Stripple, S. Monni, D. Huitema, E. Massey, H. van Asselt and F. Berkhout. 2010. Navigating the Dilemmas of Climate Policy in Europe: Evidence from Policy Evaluation Studies. *Climatic Change* 101 (3–4): 427–445.
- Harrison, K. and L.M. Sundstrom, eds. 2010. *Global Commons, Domestic Decisions*. Cambridge: MIT Press.
- Hayes, J. and J. Knox-Hayes. 2014. Security in Climate Change Discourse: Analyzing the Divergence between US and EU Approaches to Policy. *Global Environmental Politics* 14: 82–101.
- He, G. and R.K. Morse. 2010. Making Carbon Offsets Work in the Developing World: Lessons from the Chinese Wind Controversy. PSED Working Paper #90, Program on Energy and Sustainable Development, Stanford University.
- Held, D., C. Roger, and E.-M. Nag. 2013. *Climate Governance in the Developing World*. Cambridge: Polity Press.
- Herbst, J. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton: Princeton University Press.
- Hochstetler, K. and E. Viola. 2012. Brazil and the Politics of Climate Change: Beyond the Global Commons. *Environmental Politics* 21: 753–771.
- Hoffmann, M.J. 2011. *Climate Governance at the Crossroads: experimenting with a global response after Kyoto*. Oxford: Oxford University Press.
- Huntington, S.P. 1968. *Political Order in Changing Societies*. New Haven: Yale University Press.
- Ikeme, J. 2003. Equity, Environmental Justice and Sustainability: Incomplete Approaches in Climate Change Politics. *Global Environmental Change-Human and Policy Dimensions* 13: 195–206.
- Jackson, P.T. 2011. *The Conduct of Inquiry in International Relations*. London: Routledge.
- Kanowski, P.J., C.L. McDermott and B.W. Cashore. 2011. Implementing REDD+: Lessons from Analysis of Forest Governance. *Environmental Science and Policy* 14: 111–117.
- Keohane, R. and D. Victor. 2011. The Regime Complex for Climate Change. *Perspectives on Politics* 9: 7–23.
- Khan MH (2010) Political Settlements and the Governance of Growth-Enhancing Institutions. SOAS Draft Paper in Research Paper Series on Growth-Enhancing Governance, School of Oriental and Africa Studies, London.
- King, G., R. Keohane and S. Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press.
- Kim, S.Y. and Y. Wolinsky-Nahmias. 2014. Cross-National Public Opinion on Climate Change: The Effects of Affluence and Vulnerability. *Global Environmental Politics* 14: 79–106.
- Kohli, A. 2004. *State-directed Development: Political Power in the Global Periphery*. Cambridge: Cambridge University Press.

- Kohli, A., P. Evans, P.J. Katzenstein, A. Przeworski, S.H. Rudolph, J.C. Scott and T. Skocpol. 1995. The Role of Theory in Comparative Politics: A Symposium. *World Politics* 48: 1–49.
- Krasner, S. 1984. Approaches to the State: Alternative Conceptions and Historical Dynamics. *Comparative Politics* 16 (2): 223–246.
- Lachapelle, E., C.P. Borick and B.G. Rabe. 2012. Public Attitudes toward Climate Science and Climate Policy in Federal Systems: Canada and the U.S. Compared. *Review of Policy Research* 29: 334–357.
- Leiserowitz, A. 2007. *International public opinion, perception, and understanding of Global Climate Change*. Human Development Report Office Occasional Paper, UNDP.
- Lichbach, M.I. 2009. Thinking and Working in the Midst of Things: Discovery, Explanation, and Evidence. In *Comparative Politics, in Comparative Politics: Rationality, Culture, and Structure*, edited by M.I. Lichbach and A.S. Zuckerman, 18–71. Cambridge: Cambridge University Press.
- Lichbach, M.I. and A.S. Zuckerman, eds. 2009. *Comparative Politics: Rationality, Culture, and Structure*. Cambridge: Cambridge University Press.
- Lipset, S.M. 1959. Some Social Requisites of Democracy: Economic Development and Political Legitimacy. *The American Political Science Review* 53: 69–105.
- Mahoney, J. 2007. Qualitative Methodology and Comparative Politics. *Comparative Political Studies* 40: 122–144.
- Mahoney, J. 2008. Toward a Unified Theory of Causality. *Comparative Political Studies* 41: 412–436.
- Mahoney, J. 2010. After KKV: The New Methodology of Qualitative Research. *World Politics* 62: 120–147.
- Maltais, A. 2008. Global Warming and the Cosmopolitan Political Conception of Justice. *Environmental Politics* 17: 592–609.
- March JG and Olsen JP (1989) *Rediscovering institutions: The organizational basis of politics*, New York: Free Press.
- Marx, A., B. Rihoux and C. Ragin. 2014. The origins, development, and application of Qualitative Comparative Analysis: the first 25 years. *European Political Science Review* 6: 115–142.
- McKeown, T.J. 1999. Case Studies and the Statistical Worldview: Review of King, Keohane, and Verba's *Designing Social Inquiry: Scientific Inference in Qualitative Research*. *International Organization* 53: 161–190.
- Meckling, J. 2011. The Globalization of Carbon Trading: Transnational Business Coalitions in Climate Politics. *Global Environmental Politics* 11: 26–50.
- Michaelowa, A. and P. Purohit. 2007. *Additionality Determination of Indian CDM Projects: Can Indian CDM Project Developers Outwit the CDM Executive Board?* Cambridge: Climate Strategies.
- Migdal, J.S. 1988. *Strong Societies and Weak States: State-Society Relations and State Capabilities in the Third World*. Princeton: Princeton University Press.
- Migdal, J.S. 2009. Researching the State. In *Comparative politics: Rationality, Culture, and Structure*, edited by M.I. Lichbach and A.S. Zuckerman, 162–192. Cambridge: Cambridge University Press.
- Miller, C.A. 2004. Climate Science and the Making of a Global Political Order. In *States of Knowledge: The Coproduction of Science and Social Order*, edited by S. Jasanoff, 46–66. New York: Routledge.

- Milner, H.V. 1988. *Resisting Protectionism: Global Industries and the Politics of International Trade*. Princeton: Princeton University Press.
- Milner, H.V. 1997. *Interests, Institutions and Information*. Princeton: Princeton University Press.
- Minang, P., and M. van Noordwijk. 2013. Design Challenges for Achieving Reduced Emissions from Deforestation and Forest Degradation Through Conservation: Leveraging Multiple Paradigms at the Tropical Forest Margins. *Land Use Policy* 31: 61–70.
- Mkandawire, T. 2013. *Neopatrimonialism and the Political Economy of Economic Performance in Africa: Critical Reflections*. Working Paper 2013:1, Institute for Future Studies, Stockholm.
- Moore, B. 1993 [1966]. *Social Origins of Dictatorship and Democracy*. Boston: Beacon Press.
- Muhereza, F. 2006. Decentralizing Natural Resource Management and the Politics of Institutional Resource Management in Uganda's Forest Sub-Sector. *Africa Development* 31: 67–101.
- North, D.C. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- North, D.C. 1995. The New Institutional Economics and Third World Development. In *The New Institutional Economics and Third World Development*, edited by J. Harris, J. Hunter and C.M. Lewis, 17–26. London and New York: Routledge.
- Norton Rose Fulbright. 2012. *Forest Carbon Rights in REDD+ Countries: A Snapshot of Africa*. London: Norton Rose Fulbright.
- O'Neill, K., E. Weinthal, K.R. Marion Suiseeya, S. Bernstein, A. Cohn, M.W. Stone and B. Cashore. 2013. Methods and Global Environmental Governance. *Annual Review of Environment and Resources* 38: 441–471.
- Ostrom, E. 1990. *Governing the Commons: the Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Ostrom, E. 2010. *A Polycentric Approach for Coping with Climate Change: Background Paper to the 2010 World Development Report*. Washington DC: World Bank.
- Ostrom, E., T. Dietz, N. Dolšák, P.C. Stern, S. Stovich and E.U. Weber, eds. 2002. *Drama of the Commons*. Washington, DC: National Academy Press.
- Oyono, P.R. 2004a. *Institutional Deficit, Representation, and Decentralized Forest Management in Cameroon*. Washington, DC: World Resources Institute.
- Oyono, P.R. 2004b. One step forward, two steps back? Paradoxes of Natural Resources Management Decentralisation in Cameroon. *Journal of Modern African Studies* 42: 91–111.
- Popkin, S.L. 1979. *The Rational Peasant*. Berkeley, University of California Press.
- Pouliot, V. 2007. "Subjectivism": Toward a Constructivist Methodology. *International Studies Quarterly* 51: 359–384.
- Pouliot, V. 2008. The Logic of Practicality: A Theory of Practice of Security Communities. *International Organization* 62: 257–288.
- Poteete, A.R., M. Janssen and E. Ostrom. 2010. *Working Together: Collective Action and the Commons, and Multiple Methods in Practice*. Princeton: Princeton University Press.
- Purdon, M. Forthcoming. Opening the Black Box of Carbon Finance "Additionalty": The Political Economy of Carbon Finance Effectiveness across Tanzania, Uganda and Moldova. *World Development*.
- Purdon, M. 2014a. *Ex-post Evaluation of the Additionality of a Clean Development Mechanism Cogeneration Project in Uganda: The Significance of Changes in Project Financing and*

- Background Economic Conditions*. GRI Working Paper 152, Grantham Research Institute on Climate Change and the Environment Working Paper, LSE, London.
- Purdon, M. 2014b. Neoclassical realism and International Climate Change Politics: Moral Imperative and Political Constraint in Climate Finance. *Journal of International Relations and Development* 17: 301–338.
- Purdon, M. 2014c. *The Comparative Turn in Climate Change Adaptation and Food Security Governance*. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Copenhagen.
- Purdon, M. and Lokina, R. 2014. *Ex-post Evaluation of the Additionality of Clean Development Mechanism Afforestation Projects in Tanzania, Uganda and Moldova*. GRI Working Paper 149, Grantham Research Institute on Climate Change and the Environment Working Paper, LSE, London.
- Purdon, M. 2013. Land Acquisitions in Tanzania: Strong Sustainability, Weak Sustainability and the Importance of Comparative Methods. *Journal of Agricultural and Environmental Ethics* 26 (6): 1127–1156.
- Putnam, R.D. 1988. Diplomacy and Domestic Politics: The Logic of Two-Level Games. *International Organization* 42: 427–460.
- Rabe, B.G. 2007. Beyond Kyoto: Climate Change Policy in Multilevel Governance Systems. *Governance* 20: 423–444.
- Ragin, C. 1987. *The Comparative Method: moving beyond qualitative and Quantitative Strategies*. Berkeley: University of California Press.
- Resnick, D., F. Tarp and J. Thurlow. 2012. The Political Economy of Green Growth: Cases from Southern Africa. *Public Administration and Development* 32: 215–228.
- Ribot, J. 2004. *Waiting for Democracy: The Politics of Choice in Natural Resource Decentralizations*. Washington, DC: World Resources Institute.
- Ribot, J., A.R. Magalhães and S. Panagides, eds. 1996 *Climate Change, Climate Variability and Social Vulnerability in the Semi-Arid Tropics*. Cambridge: Cambridge University Press.
- Risse, T. 2007. Transnational Actors and World Politics. In *Handbook of International Relations*, edited by W. Carlsnaes, T. Risse, and B. Simmons, 255–274. London: Sage.
- Rodrik, D. 2007. *One Economics, Many Recipes*. Princeton: Princeton University Press.
- Rykkja, L.H., S. Neby and K.L. Hope. 2014. Implementation and governance: Current and future research on climate change policies. *Public Policy and Administration* 29: 106–130.
- Sangmpam, S.N. 2007. Politics Rules: The False Primacy of Institutions in Developing Countries. *Political Studies* 55: 201–224.
- Sartori, G. 1970. Concept Misformation in Comparative Politics. *American Political Science Review* 64: 1033–1053.
- Schneider, L. 2007. *Is the CDM fulfilling its environmental and sustainable development objectives? An evaluation of the CDM and options for improvement*. Berlin: Institute for Applied Ecology.
- Schneider, L. 2011. Perverse incentives under the CDM: an evaluation of HFC-23 destruction projects. *Climate Policy* 11: 851–864.
- Schreurs, M.A. 2008. From the Bottom Up: Local and Subnational Climate Change Politics. *The Journal of Environment & Development* 17: 343–355.
- Scott, J.C. 1976. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven: Yale University Press.



- Simmons, B. 1994. *Who Adjusts? Domestic Sources of Foreign Economic Policy during the Interwar Years 1923–1939*. Princeton: Princeton University Press.
- Simmons, B., F. Dobbin and G. Garret. 2006. Introduction: The International Diffusion of Liberalism. *International Organization* 60: 781–810.
- Skjærseth, J.B., G. Bang and M.A. Schreurs. 2013. Explaining Growing Climate Policy Differences Between the European Union and the United States. *Global Environmental Politics* 13: 61–80.
- Solingen, E. 2009. The Global Context of Comparative Politics. In *Comparative Politics: Rationality, Culture, and Structure*, edited by M.I. Lichbach and A.S. Zuckerman, 220–259. Cambridge: Cambridge University Press.
- Steinberg, P.F. 2007. Causal Assessment in Small-N Policy Studies. *The Policy Studies Journal* 35: 181–204.
- Steinberg, P.F. and S.D. VanDeveer. 2012. *Comparative Environmental Politics: Theory, Practice, and Prospects*. Cambridge, MA: MIT Press.
- Sterling-Folker, J. 1997. Realist Environment, Liberal Process, and Domestic-Level Variables. *International Studies Quarterly* 41: 1–25.
- Stockemer, D. 2013. Fuzzy Set or Fuzzy Logic: Comparing the Value of Qualitative Comparative Analysis (fsQCA) Versus Regression Analysis for the Study of Women's Legislative Representation. *European Political Science* 12: 86–101.
- Strange, S. 1983. Cave! Hic Dragones: A Critique of Regime Analysis. In *International Regimes*, edited by S.D. Krasner, 337–354. Ithaca, NY: Cornell University Press.
- Szarka, J. 2012. Climate Challenges, Ecological Modernization, and Technological Forcing: Policy Lessons from a Comparative US-EU Analysis. *Global Environmental Politics* 12: 87–109.
- Taylor, I. 2002. Botswana's "Developmental State" and the Politics of Legitimacy. Paper prepared for the international conference Towards a New Political Economy of Development: Globalisation and Governance, University of Sheffield.
- Terhalle, M., and J. Depledge. 2013. Great-power politics, order transition, and Climate Governance: Insights from International Relations Theory. *Climate Policy* 13: 572–588.
- Toly, N.J. 2008. Transnational Municipal Networks in Climate Politics: From Global Governance to Global Politics. *Globalizations* 5: 341–356.
- UN-REDD. 2014. Emerging approaches to Forest Reference Emission Levels and/or Forest Reference Levels for REDD+. Rome: UN-REDD Programme.
- Unruh, J.D. 2008. Carbon Sequestration in Africa: The Land Tenure Problem. *Global Environmental Change* 18: 700–707.
- VanDeveer, S., and P.F. Steinberg. 2013. Comparative Environmental Politics: Domestic Institutions and Actors. In *Routledge Handbook of Global Environmental Politics*, edited by P.G. Harris, 150–163. New York: Routledge.
- Victor, D. 2011. *Global Warming Gridlock*. Cambridge: Cambridge University Press.
- Wara, M. 2008. Measuring the Clean Development Mechanism's Performance and Potential. *UCLA Law Review* 55: 1759–1803.
- Ward, H., X. Cao, and B. Mukherjee. 2014. State Capacity and the Environmental Investment Gap in Authoritarian States. *Comparative Political Studies* 47 (3): 309–343.
- Weede, E. 1996. Legitimacy, Democracy, and Comparative Economic Growth Reconsidered. *European Sociological Review* 12: 217–225.
- Wendt, A. 1998. On Constitution and Causation in International Relations. *Review of International Studies* 24: 101–117.

- Wollenberg, E., L. Merino, A. Agrawal, and E. Ostrom. 2007. Fourteen Years of Monitoring Community Forests: Learning from IFRI's Experience. *International Forestry Review* 9: 670–684.
- World Bank. 2013. *Mapping Carbon Pricing Initiatives: Developments and Prospects*. Washington, DC: World Bank.
- Yanow, D. 2014. Interpretive Analysis and Comparative Research. In *Comparative Policy Studies: Conceptual and Methodological Challenges*, edited by I. Engeli C.A. Rothmayr, 131–159. New York: Palgrave Macmillan.
- Young, N., and A. Coutinho. 2013. Government, Anti-Reflexivity, and the Construction of Public Ignorance about Climate Change: Australia and Canada Compared. *Global Environmental Politics* 13: 89–108.
- Zhang, J.J., and C. Wang. 2011. Co-benefits and additionality of the Clean Development Mechanism: An Empirical Analysis. *Journal of Environmental Economics and Management* 62: 140–154.