

Part I

Context

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Excerpt

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Governing Climate Change Polycentrically

Setting the Scene

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1.1 Introduction

Climate change governance has been more than 30 years in the making, but it remains a work in progress. The international climate regime, centred on the 1992 United Nations Framework Convention on Climate Change (UNFCCC), has been heavily criticised for being too slow to produce results (Victor, 2011). In spite of all the resources – time, money, personal reputations – that have been painstakingly invested in the climate change regime, global emissions have still not peaked. Scientists have repeatedly sounded the alarm about the significant ‘gap’ (UNEP, 2016) between current emissions and what is required to ensure that warming does not exceed two degrees Celsius (Jordan *et al.*, 2013).

The argument that the international regime will not fully accomplish climate governance is not a new one (Okereke *et al.*, 2009). Over the years, numerous ideas for reform have been floated, many focusing on the various ways in which governance could and should be made more diverse and multilevel (Rayner, 2010). In the late 2000s, Elinor Ostrom was at the forefront of those arguing that ‘new’ and more dynamic forms of governing climate change were not just possible or even necessary, but were in fact already appearing around, below and to the side of the UNFCCC. Her message was a positive one: not all aspects of governance would have to be painstakingly designed by international negotiators. New forms were, she argued, emerging spontaneously from the bottom up, producing a more dispersed and multilevel pattern of governing, which she described as ‘polycentric’ (Ostrom, 2010a).

Since then, many others have made very similar remarks. Keohane and Victor (2011: 12) have, for example, likened the growth in the number of new governance initiatives to a ‘Cambrian explosion’. As analysts, we are beginning to learn that much of this ‘groundswell’ (Falkner, 2016) of new activity emerged in the past decade and is conventional in the sense that it links different forms of state-led

governing (e.g. government-driven coalitions promoting carbon pricing such as the Carbon Pricing Leadership Coalition, or the European Commission collaborating with mayors in cities through the Covenant of Mayors for Climate and Energy). But it is also becoming clear that many others are adopting more novel, hybrid forms (e.g. international standards developed by non-state actors, or subnational governments collaborating across borders without the involvement of their national governments). Again, Elinor Ostrom's message was unashamedly positive: she suggested that these activities, although initially small in size and few in number, would become 'cumulatively additive' over time (Ostrom, 2010a: 551, 555). Polycentric climate governance had emerged and was 'likely to expand in the future' (Ostrom, 2010a: 555).

Recent developments within the UNFCCC itself appear to confirm the trend towards greater polycentricity. At the 2015 climate summit in Paris, world leaders agreed to establish a more bottom-up system of governance through which states would pledge to make emission reductions, then gradually ratchet them up as part of a process of ongoing assessment and review (Keohane and Oppenheimer, 2016). Crucially, the Paris Agreement also offered strong encouragement to existing and new climate actions by non-state and subnational actors (Hale, 2016), thus underlining the importance of the general trend towards greater polycentricity.

Ostrom's contribution to these debates lays not so much in establishing new theoretical perspectives – she borrowed the term *polycentric* from a much older literature on the governance of local problems in urban American contexts (Ostrom, Tiebout and Warren, 1961) – but in sensing that the climate governance landscape was in transition and asking whether it could be better understood by employing new, i.e. polycentric, terms and concepts. She also directly questioned the way in which the climate governance challenge has conventionally been framed, i.e. how to deliver a global public good (a habitable climate) by coordinating state action through a strong international regime. By contrast, her reference point was *polycentric* systems, which she characterised as

multiple governing authorities at different scales rather than a mono-centric unit. Each unit within a polycentric system exercises considerable independence to make norms and rules within a specific domain (such as a family, a firm, a local government, a network of local governments, a state or province, a region, a national government, or an international regime).

(Ostrom, 2010a: 552)

As can be inferred from this quotation, the logical opposite of a *polycentric* system is a *monocentric* one, i.e. controlled by a single unitary power (Aligica and Tarko, 2012: 244). In the area of climate change, it is hard to pinpoint a pure form of monocentric governance, but the Kyoto Protocol-based approach, involving legally binding international treaties with quantified emission goals, is possibly the

closest approximation (Osofsky, 2016: 334; for a more extensive discussion, see Chapter 2).

Ostrom's empirical approach to documenting climate governance was also unconventional. Rather than start with the UNFCCC and work downwards, her entry point was the actually existing forms of governance that were being constructed by myriad actors, operating in different sectors and across different scales; her illustrative examples were from the state level in the United States, from several large cities and from the European Union (EU) (Ostrom, 2010a: 553). To be sure, she never claimed that polycentric governance would be perfect or a substitute for international diplomacy; she believed that various governance activities from multiple jurisdictions and levels, arranged in a polycentric pattern, had the potential to be highly complementary (Ostrom, 2010a: 552, 555). She was also rather guarded in her claims on whether polycentric governance would significantly reduce emissions: any reductions may only be 'slowly cumulating' (Ostrom, 2010a: 553). In this vein, she made a strong case for undertaking further empirical work on the actual, long-term impact of the new polycentric initiatives that were appearing. In her own mind, she envisaged a new programme of empirical work on these topics; in fact she thought that an inventory of polycentric actions 'would be a good subject for a future research project' (Ostrom, 2009: 19). Unfortunately, she passed away before she could complete that task.

Even if Elinor Ostrom did not invent the term *polycentric*, and climate change only really preoccupied her during the latter stages of her long career, her interventions in the debate have undoubtedly stimulated others to critically reflect upon various taken-for-granted assumptions in climate governance research and practice. In the late 2000s, the proliferation of initiatives was widely perceived as a negative development – a 'fragmentation' of and possibly a distraction from international efforts (Biermann *et al.*, 2009). Those who actually studied the new initiatives in more detail were more sanguine, but often regarded them as alternatives to the apparently gridlocked global regime (Hoffmann, 2011). Ostrom was more open-minded about the precise relationship between the various levels, units and domains; she saw it as an empirical matter. But among the very many articles and books published since her death, none has really taken forward the broad research programme that she originally envisaged. In fact, such has been the growth in the scale and scope of climate governance in the past decade that such a task could not possibly be accomplished in a single project.

This book is a first attempt to make some headway in addressing this challenge. Our primary aim is to explore what is to be gained by thinking about climate governance as an evolving polycentric system. In a *descriptive* sense, this book investigates what a polycentric perspective adds to our ability to characterise and make sense of climate governance *in toto*. Recent research

suggests that the various domains Ostrom identified are more interconnected and interlinked than was originally thought (Betsill *et al.*, 2015), but it tends to look only at one or two domains at a time. Crucially, even a combination of partial perspectives is, we think, unlikely to reveal if and how governance functions in a polycentric system.

From an *explanatory* perspective, we have already noted that Ostrom's notion of polycentricity is at odds with the way in which climate governance has traditionally been studied and enacted, with the UNFCCC presumed to be at its 'core' (Betsill *et al.*, 2015: 2). It directly challenges the manner in which academic activities have conventionally been subdivided (into those focusing on international, national and/or subnational levels, or private and/or public spheres). It also has potentially far-reaching implications for our appreciation of important matters such as authority and power, accountability, legitimacy and innovativeness. If governance is more polycentric, where does authority actually reside, is it possible to arrive at an overall measure of effectiveness and how is governing legitimated? Does the apparent dispersal of authority involve greater mutual adjustment between the domains (i.e. a 'race to the top'), or one in which standards are lowered to attract resources such as inward investment (i.e. a 'race to the bottom')? At present, scholars have barely begun to think about these more systemic issues (but see Jordan *et al.*, 2015).

Finally, as a *normative* source of *prescriptions* on how better to govern, polycentric governance thinking provides a rather different starting point to other stock-in-trade terms and concepts. Under the more monocentric or 'Kyoto' model of governing, it was more or less clear who was doing the governing (i.e. states). It was therefore obvious who or what would ultimately be held accountable; what innovativeness in governing meant (a better international regime) and where it was most likely to derive from (namely the UNFCCC, informed by the work of the Intergovernmental Panel on Climate Change);¹ what the chief metric of effectiveness was (reducing emissions); and how governing would be legitimated (through forms of democratic statehood). Thinking about what it means to govern polycentrically entails a revision of these starting assumptions. In addition, polycentric governance thinking is much more tolerant of overlap, redundancy and duplication in governance. The fact that multiple governing units take initiatives at the same time is seen not as inefficient and fragmented, but as an opportunity for learning about what works best in different domains.

The remainder of this chapter unfolds as follows. Section 1.2 charts the changing landscape of climate governance in more detail. It identifies the main actors and forms of governing – a task that is more fully accomplished in Part II of this book. Section 1.3 examines the intellectual origins of polycentric thought in more detail

and identifies five of its most important propositions. Section 1.4 concludes by outlining the four main objectives of the whole book.

1.2 Climate Governance

1.2.1 *A Landscape in Transition?*

The conventional way in which shifts in climate governance have been described is to start with the highest level (at least in a spatial sense) – the *international regime* – and work downwards and then outwards. From the perspective of the regime, climate change is first and foremost a *global* problem, requiring states to overcome significant collective action problems principally by negotiating credible agreements. However, as noted earlier in this chapter, recent scholarship has begun to reveal a rather different picture. For example, governance is no longer seen as the prerogative of states or the UNFCCC, thus requiring much greater awareness of the linkages with other regimes governing *inter alia* trade, investment and human rights (Moncel and van Asselt, 2012). Keohane and Victor (2011: 7) have distinguished between a single climate regime and a regime complex ‘which [has] emerged as a result of many choices . . . at different times and on different specific issues’. The emergence of interacting (complexes of) regimes has in turn stimulated work on how to address institutional fragmentation (Zelli and van Asselt, 2013). Scholars have reflected on how fragmentation gives actors more opportunities to ‘venue shop’ and/or engage in credit-claiming and/or blame-avoidance games (Gehring and Faude, 2014: 472). Although the starting assumptions of this work were different, the emerging picture is one that has many similarities with Elinor Ostrom’s more polycentric view.

These observations are being taken forward in the wake of the Paris Agreement. Although that agreement emerged from a process of intergovernmental negotiation, it undoubtedly broke new ground (Falkner, 2016). In the past, it was widely assumed that states would only take on emission reduction targets after long and tortuous processes of bargaining. In practice, the targets were unenforceable, and several major polluters (e.g. the United States and Canada) simply walked away. The Paris Agreement tacitly accepted this *realpolitik* – henceforth, states will simply pledge to make emission cuts, enshrined in what are known as nationally determined contributions. Interestingly, non-state actors are developing new ways to evaluate state behaviour in the pledging process, itself wrapped up in a five-yearly global stocktake of all pledges (Schoenefeld, Hildén and Jordan, 2018).

Moving down a level, new insights are also being generated into the public policy-making activities of *states*. Amongst international policy scholars, states are only really important because they negotiate regimes. Since Paris,

however, their inner workings have become a much more popular object of attention (Jordan and Huitema, 2014a, 2014b; Bang, Underdal and Andresen, 2015). The ‘Climate Change Laws of the World’ database reveals that by 2017, 1,200 individual climate laws and policies had been adopted (Averchenkova, Fankhauser and Nachmany, 2017), up from only 60 when the Kyoto Protocol was signed in 1997. The most active adopters have up to 20 separate climate laws on their statute books (Averchenkova *et al.*, 2017: 15). Meanwhile, the judiciary within states has also become more active, complementing and on occasions also substituting for national legislation (Averchenkova *et al.*, 2017: 13). These legislative activities also extend to adaptation to climate impacts (Massey *et al.*, 2014).

As Ostrom foretold, many states are evidently not waiting for the international regime to push them to act. In fact, there even appears to be evidence of greater polycentricity within the relatively monocentric domain of state-led policymaking. For example, more than 100 regional governments have committed themselves to reducing emissions by at least 80 per cent by 2050, a target exceeding that of most sovereign states (Averchenkova *et al.*, 2017: 12). States are also not moving forward at the same rate: industrialised countries are more active adopters of climate laws than developing countries, a significant number of whom have failed to adopt a single instrument. Even the type of national policies is quite heavily differentiated between those that are binding (and hence more monocentric) and those that are not (Averchenkova *et al.*, 2017).

If one moves outwards into the domain of *private* governance, yet more forms of governing come into view, again reinforcing the impression that the degree of polycentricity is rising. These include voluntary commitments to reduce emissions, but also highly complex systems for monitoring and trading in emissions, and efforts to disclose the carbon risks for businesses and investors (Green, 2014). It has long been recognised that private actors will eventually deliver a great deal of mitigation and adaptation, but the breadth and ambition of what many are now offering demands greater explanatory attention. Many of the private initiatives are being steered by industry associations and alliances, seemingly independent of state action but at the same time interacting with such action in unknown ways. For instance, the World Business Council on Sustainable Development coordinates Action 2020, an initiative to embed sustainability in business practices, as well as more sector-specific activities, such as the Cement Sustainability Initiative. To give another example, as part of the Science-Based Targets initiative, a partnership formed by the United Nations and several business and environmental organisations, more than 200 of the world’s largest and most energy-intensive companies have voluntarily taken on 2050 reduction targets based on their share of the global

reductions needed to stay within two degrees. These types of private action have been interpreted as yet more examples of polycentricity in action (Cole, 2011).

It was therefore a natural next step for some analysts to explore the linkages and interactions between the various actions and initiatives (Betsill *et al.*, 2015). Such work is revealing that some of the initiatives are linked in ways that bypass state control. Bulkeley *et al.* (2014) have characterised these as hybrid or transnational forms of governance. Some initiatives even perform functions (e.g. standard setting) that have traditionally been monopolised by states (which in practice still need to sanction such standards to enhance legitimacy).

Practitioners too have acknowledged that polycentricity should be taken much more seriously. Some of these efforts date back to the early 2010s, but accelerated prior to the Paris summit (Hsu, *et al.*, 2015; Hale, 2016). In fact, the Paris outcomes actively encourage the development of new forms of governing via annual events and technical expert meetings. An online portal has been established for non-state and subnational actors to register their emission reduction commitments (the Non-state Actor Zone for Climate Action). And two rotating ‘high-level champions’ have been asked to encourage further action by non-state and subnational actors. Therefore, it seems as though the UNFCCC is itself adjusting, from the setting of global rules to the more polycentric task of facilitating non-state action.

1.2.2 The Struggle to Understand the Changing Landscape

Clearly, the governance landscape is in flux: more actors are engaging in many more activities at significantly more levels of governance. According to Betsill *et al.* (2015: 8), the emerging landscape

will only get more complicated over time. The ability to work out how its different elements interact, and thus how they may be enabled to interact more effectively, is ... likely to become an ever more pressing question for both.

How are researchers rising to these challenges? The proliferation of terms suggests that scholars do not yet agree on what constitutes ‘the landscape’. Among international scholars, new terms have been coined, including ‘regime complexes’ (Keohane and Victor, 2011), ‘experimentalist’ (Sabel and Zeitlin, 2009), ‘complex’ (Bernstein and Cashore, 2012) and ‘fragmented’ governance (Zelli and van Asselt, 2013). For those interested in national political systems, state policies are of paramount importance, hence references to climate policy innovation (Jordan and Huitema, 2014a, 2014b), experimentation and the new climate governance (Jordan *et al.*, 2015).

By consciously selecting the term *polycentric*, Elinor Ostrom sought to unify these debates. As we suggested earlier, she saw a need for a more holistic *description* of the landscape, for more analysis (to understand and *explain* its functioning) and better *prescription* (grounded in a different normative framework). Ostrom (2010a: 552) claimed that polycentric systems are capable of enhancing ‘innovation, learning, adaptation, trustworthiness, levels of cooperation of participants, and the achievement of more effective, equitable, and sustainable outcomes at multiple scales’. Some polycentric thinkers have examined parts of the landscape and declared that it is already being governed more or less as she predicted (Cole, 2015), and even that ‘effective global governance institutions *inevitably are* polycentric in nature’ (Cole, 2011: 396, emphasis added).

But the conditions under which these and other effects are produced is surely a matter for more detailed empirical research. This was certainly Vincent Ostrom’s starting position (Ostrom *et al.*, 1961: 831). He asserted that ‘[n]o *a priori* judgement can be made about the adequacy of a polycentric system of government as against the single jurisdiction’ (838). Elinor Ostrom also underlined the importance of studying the strengths and the weaknesses of polycentric governance empirically (Ostrom, 2010a: 555), and with an open and critical eye. But since then, too many researchers seem to have forgotten this, treating her predictions as things to be empirically confirmed rather than rigorously tested for.

In order to treat her claims in the rigorous manner in which she conducted her own work, it is important to be clear about what we mean by governance and, more specifically, *polycentric* governance. To be fair, there is no single, canonical theoretical statement of either term (McGinnis, 2016: 5). Some have argued that the Ostroms were too quick to put aside theoretical-conceptual matters in the quest for empirical verification, leaving the theory somewhat underspecified (Aligica and Tarko, 2012: 248). And then of course work originally conducted by the Ostroms has been taken up and amended by others in the Bloomington School (e.g. compare Aligica and Tarko, 2012: 241–244; McGinnis, 2016). This process of reapplication and refinement has further blurred the three core functions of polycentric thinking (description, explanation and prescription; McGinnis, 2016: 2), to the evident frustration of those who want to engage in new work (Galaz *et al.*, 2012; Dorsch and Flachsland, 2017). For example, absolutely core terms such as ‘polycentric’, ‘polycentricity’ and ‘polycentrism’ are used quite casually in the existing literature. Therefore, the next section tries to unpack the concept of polycentric governance and explicate five of its most important theoretical propositions.