

## GOVERNING CLIMATE CHANGE

Climate change governance is in a state of enormous flux. New and more dynamic forms of governing are appearing around the international climate regime centred on the United Nations Framework Convention on Climate Change (UNFCCC). They appear to be emerging spontaneously from the bottom up, producing a more dispersed and multilevel pattern of governing, which Nobel Laureate Elinor Ostrom famously described as ‘polycentric’. This book brings together contributions from some of the world’s foremost experts to provide the first systematic test of the ability of polycentric thinking to explain and enhance societal attempts to govern climate change. It is ideally suited to researchers in public policy, international relations, environmental science, environmental management, politics, law and public administration. It will also be useful in advanced courses in climate policy and governance, and for practitioners seeking short, incisive summaries of developments in particular sub-areas and sectors. This title is also available as Open Access on Cambridge Core at <http://dx.doi.org/10.1017/9781108284646>.

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# GOVERNING CLIMATE CHANGE

## Polycentricity in Action?

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## Contents

<i>List of Contributors</i>	page viii
<i>Preface</i>	xi
<i>List of Abbreviations</i>	xiv
<b>Part I Context</b>	1
1 Governing Climate Change Polycentrically: Setting the Scene ANDREW JORDAN, DAVE HUITEMA, JONAS SCHOENEFELD, HARRO VAN ASSELT AND JOHANNA FORSTER	3
<b>Part II Actors and Domains of Governance</b>	27
2 International Governance: Polycentric Governing by and beyond the UNFCCC HARRO VAN ASSELT AND FARIBORZ ZELLI	29
3 National Governance: The State's Role in Steering Polycentric Action JOANA SETZER AND MICHAL NACHMANY	47
4 Transnational Governance: Charting New Directions Post-Paris HARRIET BULKELEY, MICHELE BETSILL, DANIEL COMPAGNON, THOMAS HALE, MATTHEW HOFFMANN, PETER NEWELL AND MATTHEW PATERSON	63
5 City and Subnational Governance: High Ambitions, Innovative Instruments and Polycentric Collaborations? JEROEN VAN DER HEIJDEN	81

<b>Part III Polycentric Governance Processes</b>	97
6 Experimentation: The Politics of Innovation and Learning in Polycentric Governance	
JAN-PETER VOß AND FABIAN SCHROTH	99
7 Entrepreneurship: A Key Driver of Polycentric Governance?	
ELIN LERUM BOASSON	117
8 Leadership and Pioneership: Exploring Their Role in Polycentric Governance	
DUNCAN LIEFFERINK AND RÜDIGER K. W. WURZEL	135
9 Diffusion: An Outcome of and an Opportunity for Polycentric Activity?	
JALE TOSUN	152
10 Linkages: Understanding Their Role in Polycentric Governance	
PHILIPP PATTBURG, SANDER CHAN, LISA SANDERINK AND OSCAR WIDERBERG	169
11 Orchestration: Strategic Ordering in Polycentric Governance	
KENNETH W. ABBOTT	188
12 Policy Surveillance: Its Role in Monitoring, Reporting, Evaluating and Learning	
JOSEPH E. ALDY	210
<b>Part IV Substantive Governance Challenges</b>	229
13 Harnessing the Market: Trading in Carbon Allowances	
KATJA BIEDENKOPF AND JØRGEN WETTESTAD	231
14 Decarbonisation: The Politics of Transformation	
STEVEN BERNSTEIN AND MATTHEW HOFFMANN	248
15 Transferring Technologies: The Polycentric Governance of Clean Energy Technology	
LILIANA B. ANDONOVA, PAULA CASTRO AND KATHRYN CHELMINSKI	266
16 Governing Experimental Responses: Negative Emissions Technologies and Solar Climate Engineering	
JESSE REYNOLDS	285

<i>Contents</i>	vii
17 Adaptation: The Neglected Dimension of Polycentric Climate Governance? ROBBERT BIESBROEK AND ALEXANDRA LESNIKOWSKI	303
18 Equity and Justice in Polycentric Climate Governance CHUKWUMERIJE OKEREKE	320
19 Legitimacy and Accountability in Polycentric Climate Governance KARIN BÄCKSTRAND, FARIBORZ ZELLI AND PHILIP SCHLEIFER	338
<b>Part V Synthesis and Conclusions</b>	357
20 Governing Climate Change: The Promise and Limits of Polycentric Governance ANDREW JORDAN, DAVE HUITEMA, HARRO VAN ASSELT AND JOHANNA FORSTER	359
<i>Index</i>	384

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ix

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## Preface

Among the very many scholarly contributions made by Elinor Ostrom, the work she partially completed on climate change is the one now attracting increasing attention. Though the concept of polycentric governance was originally coined in the 1960s by her husband, Vincent Ostrom, her attempt to refashion it to understand and influence the everyday practices and study of climate change is inspiring a great deal of new work, including this book.

Climate change is often characterised as a ‘wicked’ – possibly even *the* most wicked – policy problem. Many decades of multilateral climate diplomacy have arguably resulted in very meagre progress; global emissions have not yet peaked and the probability that warming will eventually exceed two degrees centigrade above pre-industrial levels remains high. When Elinor Ostrom entered the climate governance debate in the late 2000s, the political world was in a very different place from where it is today. Diplomats were still reeling from the unexpected failure of the 2009 Copenhagen conference to adopt a new international climate agreement. Since then, political conflicts have continued to bedevil the United Nations Framework Convention on Climate Change, in spite of the provision of even more scientific information (ably marshalled by the Intergovernmental Panel on Climate Change) on the causes and consequences of warming. The 2015 Paris Agreement was hailed as an unexpected success and a reminder that international diplomacy should not be entirely written off. Yet barely a year later, the fickle nature of politics was powerfully re-emphasised when Donald Trump announced his decision to withdraw the United States from the Paris Agreement, even though it arguably hands states *more* decision-making power than its predecessor, the Kyoto Protocol.

By contrast, Elinor Ostrom’s message was a much more hopeful one: do not despair if politics moves slowly at the international and national levels because a diversity of actors and institutions is already self-organising in ways that will help to compensate for the collective action problems at the higher levels. No wonder

that it resonated so widely and so powerfully amongst scholars and practitioners. Not only was it politically refreshing but it was also conceptually and theoretically unconventional in the way it sought to comprehend climate governance *in toto* rather than from a series of well-established, but partial, perspectives.

Although scholarship on polycentric climate governance has grown exponentially since Ostrom's passing in 2012, nobody has attempted to perform the systematic test of the ideas that she originally envisaged. As polycentricity attracts growing interest, now seems a particularly opportune moment not only to clarify her theoretical claims but to test them out more fully. As we explain in Chapter 1, the fact that the literature has expanded so much in the past decade indicates that this important task is considerably more challenging than she had originally thought, going well beyond what can be realistically delivered by a single research team. This book seeks to address that challenge by combining the expertise of established and upcoming scholars, each drawing on many different bodies of work. In many ways, the production of this book itself became an exercise in polycentric scholarship.

Although many book projects have a long gestation, we have been very fortunate to have worked with a group of very dedicated and responsive experts on climate governance who were able to deliver very rapidly. Their hard work and commitment has made our editorial task an especially pleasant one. Specifically, we would like to thank all the contributors for entering into the spirit of collective scholarship, pushing the boundaries of their existing research and engaging critically with the concept of polycentric governance. We believe that the joint author workshop (and subsequent Spring School) held at the Open University of the Netherlands in Heerlen in March 2017 allowed everyone to start from the same page. We would like to thank Angela Oels, Raoul Beunen, Pia Buschmann, Mimi Crijns, Judith Floor, James Patterson and Danielle Tissingh for their very capable assistance in organising both meetings. Without their work, this book would quite simply never have come to fruition.

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A number of other individuals played an important part in the publication of this book. Within the INOGOV core group, Mikael Hildén and Jonas Schoenefeld

*Preface*

xiii

provided very thoughtful comments on various chapters, and Clare Shelton stepped into the breach when one of us, Johanna, took maternity leave from her role as INOGOV's Network Manager. At Cambridge University Press, Matt Lloyd, Emma Kiddle and Zoë Pruce have been very supportive from the early stages. We are grateful to them and the three referees who provided very helpful feedback at an early stage in the production process. The considerable logistical challenge of completing a 20-chapter book involving 40 separate authors was made considerably easier by the tremendous editorial assistance provided by Zoha Shawoo. Zoha – we bet that you will never pick up and 'read' a book in quite the same way ever again!

Finally, we would like to thank our families for their continuous support (and patience!) throughout the writing of this book.

## Abbreviations

APP	Asia-Pacific Partnership on Clean Development and Climate
CBD	Convention on Biological Diversity
CCI	Clinton Climate Initiative
CDM	Clean Development Mechanism
CDP	Carbon Disclosure Project
CEO	Chief executive officer
CFCs	Chlorofluorocarbons
CIF	Climate Investment Fund
CLASP	Collaborative Labeling and Appliance Standards Program
COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
CTI	Climate Technology Initiative
ETS	Emissions trading system
EPA	Environmental Protection Agency
EU	European Union
G8	Group of 8
G20	Group of 20
GEF	Global Environment Facility
GHG	Greenhouse gas
GRI	Global Reporting Initiative
HCFCs	Hydrochlorofluorocarbons
HFCs	Hydrofluorocarbons
ICAO	International Civil Aviation Organization
IEA	International Energy Agency
IFI	International financial institution
IGO	Intergovernmental organisation
IMF	International Monetary Fund

*List of Abbreviations*

xv

IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
IPEEC	International Partnership for Energy Efficiency Cooperation
IRENA	International Renewable Energy Agency
JI	Joint Implementation
LPAA	Lima-Paris Action Agenda
MLG	Multilevel governance
MP	Marrakech Partnership for Global Climate Action
MRV	Measurement, Reporting and Verification
NAZCA	Non-state Actor Zone for Climate Action
NDC	Nationally determined contribution
NETs	Negative emissions technologies
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PAS	Publicly Available Specification
REDD+	Reducing Emissions from Deforestation and Forest Degradation
REN21	Renewable Energy Policy Network for the 21st Century
SCE	Solar Climate Engineering
SE4All	Sustainable Energy for All
TCCG	Transnational climate change governance
TEC	Technology Executive Committee
UK	United Kingdom
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNSG	United Nations Secretary-General
US	United States
VCO	Voluntary carbon offset
VCS	Voluntary Commitment System
WTO	World Trade Organization

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