

# Cambridge Elements =

Elements in Organizational Response to Climate Change

edited by
Aseem Prakash
University of Washington
Jennifer Hadden
University of Maryland
David Konisky
Indiana University
Matthew Potoski
UC Santa Barbara

## GOVERNING SEA LEVEL RISE IN A POLYCENTRIC SYSTEM

Easier Said than Done

Francesca Pia Vantaggiato

King's College London

Mark Lubell

University of California Davis







Shaftesbury Road, Cambridge CB2 8EA, United Kingdom
One Liberty Plaza, 20th Floor, New York, NY 10006, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India

103 Penang Road, #05-06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment, a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org Information on this title: www.cambridge.org/9781009475945

DOI: 10.1017/9781009433594

© Francesca Pia Vantaggiato and Mark Lubell 2024

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press & Assessment.

When citing this work, please include a reference to the DOI 10.1017/9781009433594

First published 2024

A catalogue record for this publication is available from the British Library.

ISBN 978-1-009-47594-5 Hardback ISBN 978-1-009-43358-7 Paperback ISSN 2753-9342 (online) ISSN 2753-9334 (print)

Cambridge University Press & Assessment has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.



#### Governing Sea Level Rise in a Polycentric System

#### **Easier Said than Done**

Elements in Organizational Response to Climate Change

DOI: 10.1017/9781009433594 First published online: March 2024

Francesca Pia Vantaggiato
King's College London
Mark Lubell

Mark Lubell University of California Davis

**Author for correspondence:** Francesca Pia Vantaggiato, francesca.vantaggiato@kcl.ac.uk

**Abstract:** How do polycentric governance systems respond to new collective action problems? This Element tackles this question by studying the governance of adaptation to sea level rise in the San Francisco Bay Area of California. Like climate mitigation, climate adaptation has public good characteristics and therefore poses collective action problems of coordination and cooperation. The Element brings together the literature on adaptation planning with the Ecology of Games framework, a theory of polycentricity combining rational choice institutionalism with social network theory, to investigate how policy actors address the collective action problems of climate adaptation: the key barriers to coordination they perceive, the collaborative relationships they form, and their assessment of the quality of the cooperation process in the policy forums they attend. Using both qualitative and quantitative data and analysis, the Element finds that polycentric governance systems can address coordination problems by fostering the emergence of leaders who reduce transaction and information costs. Polycentric systems, however, struggle to address issues of inequality and redistribution.

**Keywords:** climate adaptation, sea level rise, polycentric governance, San Francisco Bay Area, Ecology of Games

© Francesca Pia Vantaggiato and Mark Lubell 2024

ISBNs: 9781009475945 (HB), 9781009433587 (PB), 9781009433594 (OC) ISSNs: 2753-9342 (online), 2753-9334 (print)



### **Contents**

1	Introduction: Climate Adaptation and Collective Action	1
2	Sea Level Rise Adaptation as a New Collective Action Problem	12
3	Climate Adaptation Barriers in Polycentric Systems	27
4	Policy Networks for Cooperation and Learning	44
5	Sea Level Rise Adaptation Games	58
6	Implications and Agenda for Future Research	71
	Appendix	81
	References	88