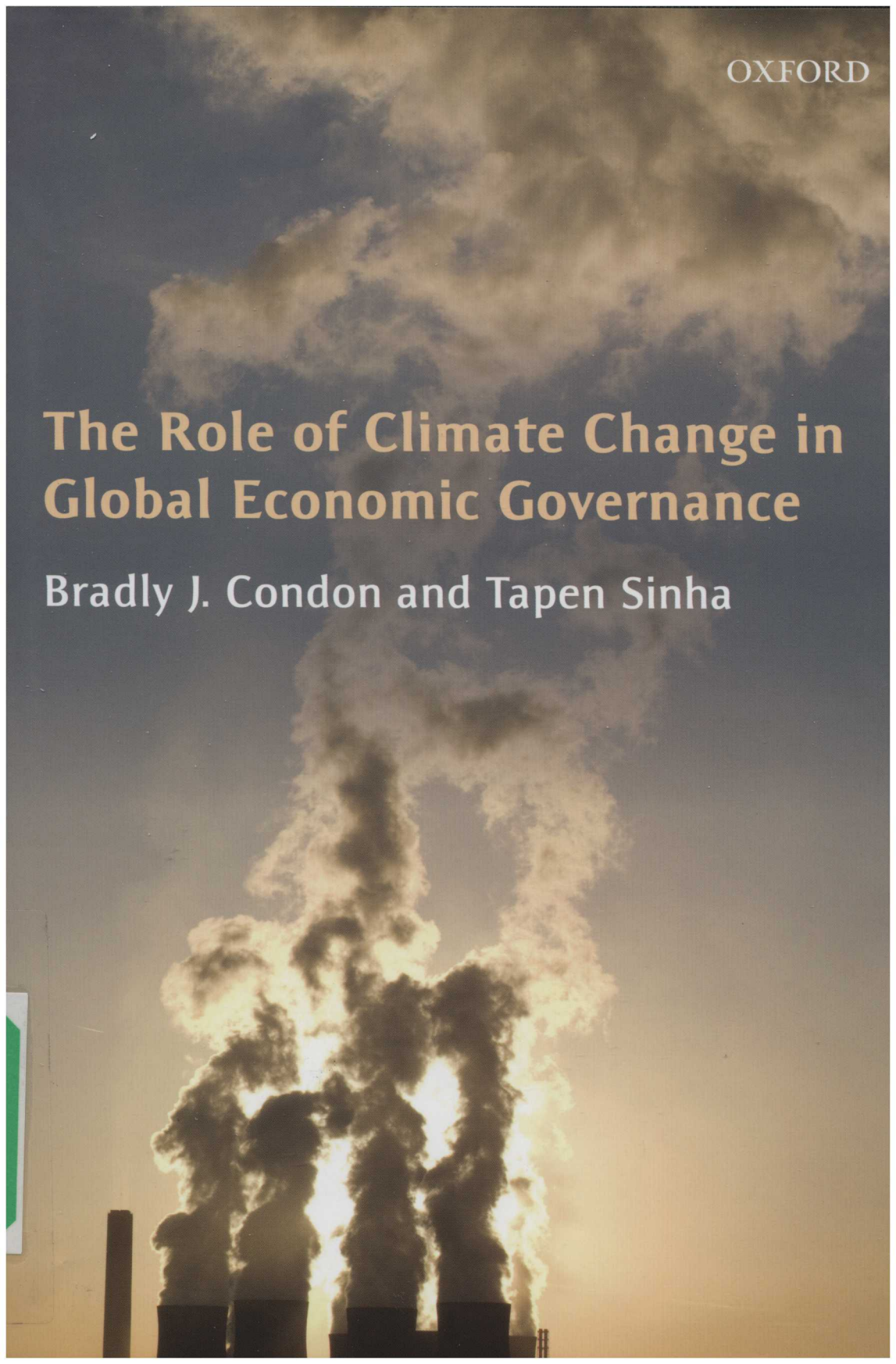


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The Role of Climate Change in Global Economic Governance

Bradly J. Condon and Tapen Sinha



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Great Clarendon Street, Oxford, OX2 6DP,
United Kingdom

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First Edition published in 2013

Impression: 1

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Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data
Data available

Library of Congress Control Number: 2013940568

ISBN 978-0-19-965455-0

Printed in Great Britain by
CPI Group (UK) Ltd, Croydon, CR0 4YY

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We dedicate this book to the future generations
who will bear the brunt of the effects of climate change.

Foreword

Climate change caused by greenhouse gas emissions presents an enormously difficult problem to humanity. Unlike the first truly global problem of chlorofluorocarbon refrigerant emissions, which was resolved at little economic cost, reduction of greenhouse emissions will not be cheap. Greenhouse gas reduction is a classic “tragedy of the commons” problem with two nasty adjuncts. From the point of view of the individual or nation, my activities producing emissions profit me, but these emissions will *in the future* hurt everyone *in an uneven way*. The future aspect raises the question, “What does the present owe the future?” The uneven aspect raises the selfish issue of “My country can mitigate and adapt to the consequences. Why should I care about what happens elsewhere?” In this context, can humanity find a way to cooperate to reduce greenhouse gas emissions?

In order to attack this international economic problem, it is necessary to know the existing international rules and institutions and to explore how they can be used to address the problem or altered if they are obstructing its solution. The relation between the present international landscape and addressing climate change is the subject of this book.

Condon and Sinha have produced the definitive treatise on all legal and economic issues that might be encountered in the context of climate change and international relations. A significant part of the book explores the relationship between local, national, and international efforts to reduce global carbon dioxide emissions and the existing international system governing trade. This book carefully explores the international legal issues that could be encountered when individual countries make efforts to reduce their own carbon emissions. Any country, state, locality, or individual proposing an emissions reduction scheme would be well advised to read it.

The scope of this book goes well beyond emissions control and international economic regulation. Chapter 6 is a lucid exposition of the application of economic theory to modeling the effects of climate change in the international context. For several different reasons, the effect of climate change will affect different countries in different ways. Thus all of the Maldives and major portions of Bangladesh are very likely to go underwater. In countries like India, that have a large fraction of the population dependent on subsistence farming, a small change in climate can have a devastating effect. In countries that have many people who are very poor, a small negative economic shift can create great suffering. Condon and Sinha combine all such considerations to create a susceptibility index for countries, which can be applied to prioritize international aid for mitigation efforts.

This book (Chapter 7) describes how the finance industry can combine with government to make cap-and-trade markets giving a historical account of how the US SO₂ market and the European CO₂ market have functioned. Any

mandatory emissions reduction scheme, of necessity, affects different industries and regions disproportionately. In the SO₂ market case, cap-and-trade proved highly successful in reducing emissions, but after more than a decade, the Environmental Protection Agency introduced a change that caused the cost of permits to escalate with the result that several states successfully sued. The result of that lawsuit was that the price of permits went to near zero effectively ending the program, but the beneficial changes it produced persist.

Emissions reductions and mitigation will be expensive. The poor in less developed countries will be some of the most affected adversely by climate change; the rich countries will be called upon to help them adapt. Chapter 8 describes the existing international mechanisms for distributing such funds, but at present the available funding is inadequate. Condon and Sinha propose that international efforts can be financed in great measure by global elimination of fossil fuel subsidies. If developed countries eliminated these subsidies, nearly USD 58 billion would be freed yearly to develop lower emission energy sources while simultaneously significantly reducing emissions through higher fossil fuel prices. Many less developed countries also subsidize fossil fuel consumption, and most of these subsidies do not benefit their poor; the money thus freed will help but will not be enough.

There are a number of people zealously devoted to combating the emissions causing climate change. Before they can be effective, they must understand the existing institutions of global economic governance in order to use them or change them. Their self-education can be greatly helped by study of *The Role of Climate Change in Global Economic Governance*.

Robert F. Curl

Pitzer-Schlumberger Professor of Natural Sciences Emeritus
University Professor Emeritus, Rice University
Nobel Prize in Chemistry in 1996

Preface

On January 11, 2013, the US Global Change Research Program released the National Climate Assessment Development Advisory Committee Draft Climate Assessment Report. The Committee coordinates federal research on changes in the global environment and their implications for society. Thirteen US government departments and agencies participate in the Research Program. The Executive Office of the President of the United States oversees this program. The Draft Report concludes that the evidence for a changing climate has strengthened considerably since its last Climate Assessment Report of 2009. Most significantly, the Draft Report concludes that observed climatic changes are having wide-ranging impacts in every region of the United States and most sectors of its economy. Climate change is no longer a future threat. It is happening now. This Draft Report changes the tone of the climate change debate significantly. In an appendix to Chapter 1, we reproduce the Draft Report's Introduction, which is entitled "Letter to the American People." The Joint US-China Statement on Climate Change is also significant, and notes "the overwhelming scientific consensus about *anthropogenic* climate change and its worsening impacts."¹

Climate change represents an unprecedented global challenge. Because climate change raises scientific, economic, financial, social, political, and legal issues, it requires interdisciplinary research. This book analyzes the challenges that climate change poses for global economic governance, integrating economic, financial, and legal perspectives. Our research reveals that several policies are misguided and some are just plain backwards.

The division of countries into developed and developing is too simplistic to address the complex issues that arise from climate change. If one is to categorize countries according to their capacity for mitigation and adaptation, or according to their vulnerability to climate change, then one must use a more sophisticated categorization. We propose one.

The role of intellectual property rights with respect to technology dissemination should be analyzed according to different types of technologies. They may create obstacles to technology dissemination where plant varieties are concerned, which has implications for the capacity of subsistence farmers to adapt to a more variable climate. However, they are less likely to create obstacles to the diffusion of clean energy technologies. Nevertheless, many developing countries insist that intellectual property rights are an obstacle to the adoption of clean energy technologies, while other developing countries agree to stricter intellectual property rights for new plant varieties. These policy stances are backwards.

¹ Joint US-China Statement on Climate Change, Media Note, Office of the Spokesperson, Washington, D.C., April 13, 2013 <<http://www.state.gov/r/pa/prs/ps/2013/04/207465.htm>> (accessed April 15, 2013).

Developing countries insist that developed countries pay for climate finance. However, subsidies for fossil fuels in developing countries are four times the amount of climate financing that they seek for mitigation and adaptation actions. In WTO subsidies law, the legality of clean energy subsidies is uncertain. At the same time, WTO subsidies law permits Members to apply countervailing duties on imports of clean energy technologies, which raises their cost. Lowering the cost of fossil fuels, while increasing the cost of clean energy technologies, are also backward policies.

These policy incongruencies need to be addressed if multilateral climate change negotiations are to advance towards effective solutions. We hope that this book will contribute to that end.

PowerPoint slides to accompany this book are available at <http://cdei.itam.mx/medios_digitales/educacion.php#materiales>.

Bradly J. Condon
Tapen Sinha

Mexico City
April 15, 2013

Acknowledgements

We are very grateful to Nobel Laureate Dr. Robert F. Curl for his encouragement of our research and, in particular, for his kind and generous foreword for this book. There is no one who is better qualified than Bob to write this Foreword and to evaluate the value of our contribution to climate change research.

The authors gratefully acknowledge the help, support, and encouragement of the following people: Luis Yahir Acosta Pérez, M. Fernanda Alcalá Durand, Sankarshan Basu, Alyssa Benedict, Rebecca Benedict, Perla Buenrostro, Françoise Carner, Jorge Cerdio, Ashok Chaudhuri, Cathy Condon, Kip Condon, Fernando de Mateo, ISICal73 Group, Jean Paul Dutoit, Arturo Fernández, Alejandro Hernández, Diego Hernández, Georgina Jarquín, Rajeeva Karandikar, Stephen Kay, Dorotea López, César Martinelli, Felipe Muñoz, Héctor Murguía Holguín, Gabriela Moya, Mark Nordman, María Pereyra, Beatriz Rumbos, Dipendra Sinha, Sheena Sinha, Todd Wetmore, Wendy Williamson, and “El Grupete”: Carlos Bernal, Gabriela Rodríguez, and Alejandra Sierra.

We gratefully acknowledge the support of the WTO Chairs Program and the many individuals at the WTO who have contributed to the success of Mexico’s WTO Chair and the research for this book: Hakim Ben Hammouda, Pablo Bentes, Jorge Castro, Fatima Chaudhri, Bridget Chilala, Mireille Cossy, Fernanda Garza, Alejandro Jara, Pascal Lamy, Patrick Low, Hamid Mamdouh, Jose-Antonio Monteiro, María Pereyra, Ricardo Ramírez, Verónica Scerbo, Karsten Steinfatt, Gerardo Thielen, Héctor Torres, Raymundo Valdes, and Wendy Williamson. We also thank Vlasta Macku and Diana Tussie for their support of Mexico’s WTO Chair research program.

Chapter 3 is based on a paper prepared for the International Conference on the Future of the WTO, Asian Center for WTO & International Health Law and Policy, College of Law, National Taiwan University, 24 May 2009. We thank the conference participants for their helpful comments on an earlier draft, particularly those of Victoria Donaldson, Lothar Ehring, Chang-fa Lo, Mitsuo Matsushita, Bryan Mercurio, David Morgan, and Marie-Isabelle Pellan. This paper was later published as Bradley J. Condon, “Climate Change and Unresolved Issues in WTO Law” (2009) 12 *Journal of International Economic Law* 895. I thank the anonymous reviewers of that article for their insightful comments. Chapter 3 has been extensively modified in light of more recent WTO jurisprudence.

Chapter 5 is reprinted from *Journal of World Trade* 47:4 (2013) 867–892, with permission of Kluwer Law International. We gratefully acknowledge the permission of the *Journal of World Trade* to use this work in this book. We also thank the participants in the conference on International Economic Law and the Environment for their helpful comments on an earlier version of this research, particularly Luis Yahir Acosta Pérez, José Manuel Álvarez, Luis Ángel Madrid, and Ramón

Eduardo Guacaneme. Parts of Chapters 6 and 7 were presented at a conference at the Indian Institute of Management, Bangalore. The hospitality of the Chennai Mathematical Institute is gratefully acknowledged.

We thank the Instituto Tecnológico Autónomo de México and the Asociación Mexicana de Cultura AC for their generous support of our research. We are grateful to our publisher, Oxford University Press, for seeing the value in this topic. We deeply appreciate the diligent work of the editors at OUP, in particular Merel Alstein, Anthony Hinton, Ela Kotkowska, Emma Hawes, John Louth, and Vengatakrishnan Subramaniam. We gratefully acknowledge the helpful comments of the three anonymous peer reviewers on earlier drafts of this book.

List of Abbreviations

2005 Guidelines	Guidelines for Research and Development Expenditures (Canada)
ARP	Acid Rain Program (US)
AUD	Australian Dollar
BCSC	British Columbia Supreme Court
BITs	Bilateral Investment Treaties
BRICS	Brazil, Russia, India, China, and South Africa
CAD	Canadian Dollar
CAIR	Clean Air Interstate Rule (US)
CARB	California Air Resources Board
CBD	Convention on Biological Diversity
CCS	Carbon-dioxide capture and storage
CCX	Chicago Carbon Exchange
CDM	Clean development mechanism
CDR	Common but differentiated responsibilities
CDVI	Climate disaster vulnerability index
CERs	Certified Emission Reductions
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CODEX STAN	1 1985 General Standard for the Labeling of Prepackaged Foods
COP	Conference of Parties (UNFCCC)
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CH ₄	Tetrahydridocarbon (Methane)
CSAPR	Cross-State Air Pollution Rule (US)
CSI	Climate Sensitivity Index
DICE model	Dynamic Integrated Climate Economy model
E&T	Education and Training
EC	European Communities
ECJ	European Court of Justice
EEC	European Economic Community
EIA	Environmental impact assessment
EPA	Environmental Protection Agency (US)
EU	European Union
EUA	European Union Allowance
EU ETS	European Union Emissions Trading System
FAO	Food and Agriculture Organization
FIT	Feed-in tariff
FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GHG	Greenhouse gas
GM	Genetically modified

GMO	Genetically modified organism
HS	Harmonized System of Tariff Classification
ICJ	International Court of Justice
ICSID	International Centre for Settlement of Investment Disputes
IIA	International Investment Agreements
ILC	International Law Commission
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPR	Intellectual property right
JI	Joint Implementation
MEA	Multilateral environmental agreement
MFN	Most-favored nation
MIGA	Multilateral Investment Guarantee Agency
MTBE	Methyl tertiary-butyl ether
NAAEC	North American Agreement on Environmental Cooperation
NAFTA	North American Free Trade Agreement
NBP	US NO _x Budget Trading Program
NOAA	US National Oceanic and Atmospheric Administration
N ₂ O	Nitrous oxide
OECD	Organisation for Economic Co-operation and Development
PCB	Polychlorinated biphenyl
ppm	parts per million
PPM	Processing and production methods
PPP	Polluter-pays principle
R&D	Research and development
REDD	Reduced Emissions from Deforestation and Degradation
RGGI	Regional Greenhouse Gas Initiative (US)
RICE model	Regional Integrated model of Climate and the Economy model
SCM Agreement	Agreement on Subsidies and Countervailing Measures
SO ₂	Sulfur dioxide
SPS Agreement	Agreement on Sanitary and Phytosanitary Measures
TBT Agreement	Agreement on Technical Barriers to Trade
TEEB Report	The Economics of Ecosystems and Biodiversity Report
TRIMS	Agreement on Trade-Related Investment Measures
TRIPS Agreement	Agreement on Trade-Related Aspects of Intellectual Property Rights
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UNTS	United Nations Treaty Series
UPOV	International Convention for the Protection of New Varieties of Plants
US	United States
USD	United States Dollar
WTO	World Trade Organization

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