Promoting Compliance in an Evolving Climate Regime

EDITED BY

Jutta Brunnée, Meinhard Doelle and Lavanya Rajamani

PROMOTING COMPLIANCE IN AN EVOLVING CLIMATE REGIME

Edited by

JUTTA BRUNNÉE

MEINHARD DOELLE

and

LAVANYA RAJAMANI



CAMBRIDGE UNIVERSITY PRESS Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi, Tokyo, Mexico City

Cambridge University Press
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org Information on this title: www.cambridge.org/9780521199483

© Cambridge University Press 2012

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.

First published 2012

Printed in the United Kingdom at the University Press, Cambridge

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

ISBN 978-0-521-19948-3 Hardback ISBN 978-0-521-13613-6 Paperback

Cambridge University Press 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.

CONTRIBUTORS

JANE BULMER is a legal officer with the secretariat of the United Nations Framework Convention on Climate Change.

JUTTA BRUNNÉE is Metcalf Chair in Environmental Law and Associate Dean (Graduate) at the Faculty of Law, University of Toronto.

ERIC DANNENMAIER is Associate Professor of Law and Dean's Fellow at the Indiana University School of Law.

MEINHARD DOELLE is the Director of the Marine and Environmental Law Program and Associate Professor at the Schulich School of Law, Dalhousie University.

ANKE HEROLD is Research Coordinator for International Climate Policy at the Oeko-Institut e.V, Berlin.

RENÉ LEFEBER is legal counsel in the International Law Division of the Netherlands Ministry of Foreign Affairs, holds a chair in International Environmental Law at the Faculty of Law of the University of Amsterdam, and is a member of the enforcement branch of the Compliance Committee of the Kyoto Protocol.

M.J. MACE is an independent consultant. She is a member of the Kyoto Protocol Compliance Committee and has served as a negotiator for the Alliance of Small Island States on the Micronesian delegation for over 10 years. She previously headed the Climate Change and Energy Programme at FIELD and guest lectures on climate change law and policy at various University of London campuses.

HAROLDO MACHADO-FILHO is a Member of the Global Climate Change and International Relations Network at the University of Brasília and

Special Adviser of the General Coordination on Global Climate Change at the Ministry of Science and Technology, Brazil.

RUTH MACKENZIE is Senior Lecturer, International Law, at the School of Law, University of Westminster, and Deputy Director, Centre for International Courts and Tribunals, London.

SANDRINE MALJEAN-DUBOIS is Senior Researcher and Head of the Centre for International and European Studies and Research (CERIC, CNRS & University Paul Cézanne Aix-Marseille III joint research unit).

MICHAEL MEHLING is President of the Ecologic Institute in Washington, DC and Adjunct Professor at Georgetown University.

JENNIFER MORGAN is Director of the Climate and Energy Program at the World Resources Institute.

SEBASTIAN OBERTHÜR is Academic Director of the Institute for European Studies at the Vrije Universiteit Brussels and a member of the enforcement branch of the Compliance Committee of the Kyoto Protocol.

LAVANYA RAJAMANI is a Professor at the Centre for Policy Research, New Delhi.

CATHERINE REDGWELL is Professor of International Law and Vice-Dean for External Relations, University College London.

FRANCESCO SINDICO is Lecturer in International Law at the Centre for Energy, Petroleum and Mineral Law and Policy of the University of Dundee, Scotland.

ANNE-SOPHIE TABAU is Lecturer and Researcher at University Paris Nord XIII.

 ${\tt GEIR}$ ${\tt ULFSTEIN}$ is Professor of International Law at the University of Oslo.

CHRISTINA VOIGT is Associate Professor of Law at the University of Oslo, Department of Public and International Law.

JACOB WERKSMAN is Director, Institutions and Governance Program, World Resources Institute and Adjunct Professor of Law at New York University Law School and Georgetown University Law Center. Since 1991 he has provided legal advice to governments, NGOs, and international agencies during the negotiations of the FCCC and the Kyoto Protocol and in the context of WTO disputes.

PREFACE

Our work on this volume began in 2008. At the time, like many other observers of the UN climate change regime, we were optimistic that the 2009 Copenhagen meetings would produce at least the basic framework of a post-2012 regime. We embarked on a book project that was intended to provide a comprehensive assessment of the climate regime's existing compliance system, and an authoritative guide to the new elements of the system, which we were hoping would emerge from the Copenhagen meetings. We were not alone in our optimism about the future trajectory of the climate regime. In a remarkably short time we were able to assemble a first-rate group of authors, comprising leading scholars and practitioners with close knowledge of the climate regime. Our authors enthusiastically committed to a tight writing schedule, designed to produce a complete book manuscript within a few weeks of the Copenhagen meetings.

The rest is history, as the saying goes. It became clear in the summer and autumn of 2009 that Copenhagen was unlikely to produce the much anticipated breakthrough. Indeed, 'Copenhagen' has since come to be associated with fundamental shifts in the structure and approach of the global climate regime. The Copenhagen Accord, a non-binding policy instrument cobbled together in the dying hours of the meetings, signalled a departure from the prescriptive, internationally negotiated commitments and oversight mechanisms that had characterized the UN Framework Convention on Climate Change and its Kyoto Protocol and, indeed, the majority of multilateral environmental agreements. Instead of this centralized approach, the Copenhagen Accord heralded decentralization – a shift toward non-binding, self-selected, and nationally or regionally supervised commitments.

Given these developments, which have since been confirmed by the outcomes of the 2010 Cancun meetings of the parties to the convention and protocol, we reoriented the approach of this volume. We asked our authors to consider the experience with the climate regime to date, as well as the implications of its new directions for efforts to promote compliance

XII PREFACE

with climate commitments. We are extremely grateful to our authors for their good humour, their flexibility, and, above all, their insight into the evolving climate regime and its compliance elements. From an international law perspective, the shifts in the climate regime may well have led us to produce a more interesting volume. Not only are our authors taking stock of the strengths and weaknesses in the design and practice of the climate regime's existing compliance system, they also put their fingers on the pulse of international environmental law, tracking the latest developments and analysing their broader ramifications for the structure and process of international climate law and, perhaps, beyond.

Of course, every book is the result of the hard work of individuals other than those whose names appear in the table of contents. This one is no exception. We have benefited immeasurably from the editorial support provided to us by two young lawyers. Christie Kneteman, a Student-at-Law at Torys LLP, as well as a veteran of the Copenhagen and Cancun climate meetings, has been instrumental in bringing our book manuscript together. She has been an outstanding editor and a calm guardian of consistency and 'the most recent version'. We are grateful to Christie for her assistance and to Torys LLP for enabling her to work with us on a pro-bono basis. We also thank Don McCrimmon, an SJD candidate at the Schulich School of Law, Dalhousie University, for all of his equally careful editorial work on the chapters that make up this volume. We are also grateful to Shibani Ghosh, a Research Associate at the Centre for Policy Research in Delhi, for her marvellous editing in the final stages of readying the manuscript for submission. This volume has benefited tremendously from her remarkable eye for detail and demanding standards for precision and accuracy. Finally, our thanks go to Finola O'Sullivan at Cambridge University Press, for her support, encouragement, and flexibility throughout our work on this volume, and to Richard Woodham, also at Cambridge University Press, for his advice and assistance in the finalization of the book.

> Jutta Brunnée, Meinhard Doelle, and Lavanya Rajamani April 2011

ABBREVIATIONS

AAU assigned amount unit

ACESA American Clean Energy and Security Act

AfDB African Development Bank

AGF Advisory Group on Climate Change Financing

AIEs Accredited Independent Entities
AIJ Activities Implemented Jointly
AOSIS Association of Small Island States

AWG-KP Ad Hoc Working Group on Further Commitments for Annex I

Parties under the Kyoto Protocol

AWG-LCA Ad Hoc Working Group on Long-term Cooperative Action under the

Framework Convention on Climate Change

BAP Bali Action Plan

BASIC Brazil, South Africa, China, and India

BCAs border carbon adjustments

CBD Convention on Biological Diversity

CBDR common but differentiated responsibilities

CBDRRC common but differentiated responsibilities and respective capabilities

CC Compliance Committee

CCS carbon capture and storage/sequestration

CDM Clean Development Mechanism
CERs certified emissions reductions

CITES Convention on International Trade in Endangered Species

CITL Community Independent Transaction Log

CMP Conference of the Parties serving as the meeting of the parties to the

Kyoto Protocol

COP Conference of the Parties

CPM compliance procedures and mechanisms
CTCN Climate Technology Centre and Network

EB enforcement branch

EBRD European Bank for Reconstruction and Development

ECJ European Court of Justice
EITs economies in transition
ERT expert review team

ERUs emission reduction units ETS emissions trading system

EU European Union

EU ETS European Union Emissions Trading Scheme

EUAs European Union Allowances
EUTL European Union Transaction Log

FB facilitative branch

FCCC United Nations Framework Convention on Climate Change

GEF Global Environmental Facility

GHG greenhouse gas

GIS Green Investment Schemes
GWP global warming potential

IACHR Inter-American Commission on Human Rights

IADB Inter-American Development Bank

IBRD International Bank for Reconstruction and Development

ICA international consultation and analysis

ICC Inuit Circumpolar Council ICJ International Court of Justice

ICSID International Centre for Settlement of Investment Disputes

IDA International Development Association

IEA International Energy Agency IGO intergovernmental organization

IPCC Intergovernmental Panel on Climate Change

IR international relations

ITL International Transaction Log

ITPGR International Treaty on Plant Genetic Resources

JI Joint Implementation

JISC Joint Implementation Supervisory Committee

JPAC Joint Public Advisory Committee

LDCs least developed countries

LOSC United Nations Convention on the Law of the Sea

LRTAP Convention on Long Range Transboundary Air Pollution

LULUCF land use, land-use change and forestry
MCCF Multilateral Carbon Credit Fund
MEAs multilateral environmental agreements
MRV measurement, reporting and verification
NAFTA North American Free Trade Agreement
NAMAS Nationally Appropriate Mitigation Actions

NCPs non-compliance procedures

NEPA US National Environmental Policy Act NGOs non-governmental organizations

NIR national inventory report

NOA National Observatory of Athens

NTUA National Technical University of Athens

ODA official development assistance

OECD Organization for Economic Cooperation and Development

OPIC US Overseas Private Investment Corporation

PDDs project development documents QA/QC quality assurance/quality control

QELROs quantified emissions limitation and reduction obligations
REDD Reducing Emissions from Deforestation and Degradation

REDD+ Reducing Emissions from Deforestation and Degradation and sup-

porting forest conservation, sustainable management of forests and

enhancement of forest carbon stocks

REIO Regional Economic Integration Organization

RMUs removal units SB subsidiary body

SBI Subsidiary Body for Implementation SCCF Special Climate Change Fund

SCM World Trade Organization Agreement on Subsidies and

Countervailing Measures

SIARs Standard Independent Assessment Reports

SIDS Small Island Developing States tCO₂e tonnes of carbon dioxide equivalent TEC Technology Executive Committee

UNCED United Nations Conference on Environment and Development 1992

UNDP United Nations Development Programme

UNECE United Nations Economic Commission for Europe

UNESCO United Nations Educational, Scientific and Cultural Organization

WB World Bank

WHC United Nations Educational, Scientific and Cultural Organization's

World Heritage Committee

WTO World Trade Organization

CONTENTS

List of contributors page viii Preface xi List of abbreviations xiii

Introduction: The role of compliance in an evolving climate regime 1
LAVANYA RAJAMANI, JUTTA BRUNNÉE, AND MEINHARD DOELLE

PART I Context 15

- The emerging post-Cancun climate regime 17

 JENNIFER MORGAN
- Promoting compliance with multilateral environmental agreements 38
 JUTTA BRUNNÉE
- Compliance regimes in multilateral environmental agreements 55

PART II The Kyoto compliance system: Features and experience 75

- 4. Key features of the Kyoto Protocol's compliance system 77 RENÉ LEFEBER AND SEBASTIAN OBERTHÜR
- Experience with the facilitative and enforcement branches of the Kyoto compliance system 102
 MEINHARD DOELLE

vi

RUTH MACKENZIE

CONTENTS	
6.	Experiences with Articles 5, 7, and 8 defining the monitoring, reporting and verification system under the Kyoto Protocol 122
	ANKE HEROLD
	PART III Compliance and the climate regime: Issues, options, and challenges 147
7.	The role of non-state actors in climate compliance 149 ERIC DANNENMAIER
8.	Facilitation of compliance 177 CATHERINE REDGWELL
9.	Enforcing compliance in an evolving climate regime 194 MICHAEL MEHLING
10.	Financial mechanisms under the climate regime 216 HAROLDO MACHADO-FILHO
11.	Post-2012 compliance and carbon markets 240 FRANCESCO SINDICO
12.	Compliance and the use of trade measures 262 JACOB WERKSMAN
13.	'Comparability of efforts' among developed country parties and the post-2012 compliance system 286 M. J. MACE
14.	From the Kyoto compliance system to MRV: what is at stake for the European Union? 317
	SANDRINE MALJEAN-DUBOIS AND ANNE-SOPHIE TABAU
15.	Compliance in transition countries 339 CHRISTINA VOIGT
16.	Developing countries and compliance in the climate regime 367
	LAVANYA RAJAMANI
17.	The role of dispute settlement in the climate regime 395

CONTENTS vii

18. Depoliticizing compliance 418 GEIR ULFSTEIN

PART IV A look forward 435

Conclusion: Promoting compliance in an evolving climate regime 437
MEINHARD DOELLE, JUTTA BRUNNÉE, AND LAVANYA RAJAMANI

Bibliography 459 Index 479

Introduction: The role of compliance in an evolving climate regime

LAVANYA RAJAMANI, JUTTA BRUNNÉE, AND MEINHARD DOELLE

The climate regime: contested and limited?¹

Few environmental issues in living memory have attracted the political capital, media attention, and popular imagination that climate change has in recent years. Climate change has emerged over the last few decades as the 'defining human development challenge of the 21st century'.²

In this time, the scientific community has offered ever clearer and more rigorously defended proof that the warming of the climate system is unequivocal and accelerating.³ The global average temperature has increased by 0.74 °Celsius in the last century, the largest and fastest warming trend in the history of the Earth.⁴ Climate change will, among other impacts, increase the severity of droughts, land degradation and desertification, the intensity of floods and tropical cyclones, the incidence of malaria and heat-related mortality, and decrease crop yield and food security.⁵ It is also increasingly clear that, as the climate system warms, poorer nations, and the poorest within them, will be the worst affected.⁶ Climate change is 'a massive threat to human development'.⁷

Notwithstanding the magnitude of the problem, an effective and universal solution to address it has thus far eluded the international

¹ This section draws on L. Rajamani, 'From Berlin to Bali and Beyond: Killing Kyoto Softly', International and Comparative Law Quarterly, 57 (2008), 909.

² UNDP, 'Fighting Climate Change: Human Solidarity in a Divided World', Human Development Report (2007/8), at http://hdr.undp.org/en/reports/global/hdr2007-2008/.

³ S. Solomon et al. (eds), Climate Change 2007: The Physical Science Basis. Contribution of Working Group 1 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2007).

⁴ Ibid. 5 Ibid. 6 Ibid.

⁷ UNDP, 'Summary for Policy Makers', Human Development Report, above note 2.

community. There are significant hurdles facing nations seeking to craft a common platform for addressing climate change. There are vast differences between countries in terms of contributions to the stock of carbon in the atmosphere, industrial advancement and wealth, nature of emissions use, and climate vulnerabilities. There is a worsening of poverty in some parts of the world, a reluctance to modify existing lifestyles or development pathways and there are differing levels of faith in technological solutions. Operating within the constraints posed by these hurdles, states have over the past two decades created a legal regime, albeit a contested one, to address climate change and its impacts.

The legal texts that comprise the climate regime – the United Nations Framework Convention on Climate Change⁸ (FCCC) and its Kyoto Protocol⁹ – are in force, ¹⁰ have concrete content, and are binding. Resources are in place to facilitate the negotiation process, ¹¹ incentivize emissions reductions, ¹² as well as supervise and enforce compliance with the obligations imposed by these treaties. ¹³ There are, however, both fundamental disagreements, as well as inadequacies, at the heart of the climate regime. These factors have created a political drag in the implementation of current commitments, and the negotiation of further commitments.

The FCCC and its Kyoto Protocol are structured around two fundamental premises. The first is that a prescriptive, quantitative, time-bound approach to addressing environmental problems is a superior and preferred approach. The FCCC and Kyoto Protocol contain quantitative

- United Nations Framework Convention on Climate Change, UN Doc. A/AC.237/18 (Part II)/Add.1, (1992) 31 I.L.M. 849.
- ⁹ Kyoto Protocol to the United Nations Framework Convention on Climate Change, FCCC/CP/1997/L.7/Add.1, (1998) 37 I.L.M. 22.
- ¹⁰ There are 193 parties to the Kyoto Protocol and 195 parties to the FCCC: see www. unfccc.int.
- The FCCC and the Kyoto Protocol are serviced by a secretariat based in Bonn, staffed by several hundred international civil servants: see http://unfccc.int/secretariat/items/ 1629.php.
- Through Joint Implementation, the Clean Development Mechanism, and Emissions Trading, Kyoto Protocol, above note 9, at Articles 6, 12, and 17.
- At the seventh FCCC COP, parties adopted the Marrakesh Accords which laid down operating rules for the mechanisms and accounting procedures for emissions reduction credits. They established a compliance system and set out the consequences for non-compliance. See Report of the Conference of the Parties on its Seventh Session, Addendum, Part two, Action taken by the Conference of the Parties, Volume I, FCCC/CP/2001/13/Add.1 (21 January 2002); see also Volume II, FCCC/CP/2001/13/Add.2 (21 January 2002); Volume III, FCCC/CP/2001/13/Add.3 (21 January 2002); and Volume IV, FCCC/CP/2001/13/Add.4 (21 January 2002).

greenhouse gas (GHG) mitigation commitments set to timetables and backed by a compliance system. ¹⁴ The second is that leadership from developed countries, and its corollary differential treatment in favour of developing countries, is the equitable and therefore appropriate basis on which the international response to climate change must be structured. This is captured in the principle of common but differentiated responsibility, ¹⁵ a fundamental part of the conceptual apparatus of the climate regime. The FCCC and Kyoto Protocol require developed countries, given their enhanced historical and current contributions to the carbon stock as well as their greater wealth and technological capacity, to take the lead in assuming and meeting ambitious GHG mitigation commitments. ¹⁶

Elements of prescription (for developed countries), leadership (of developed countries), and differentiation (in favour of developing countries) are evident in the tone, intent, and design of the FCCC and the Kyoto Protocol. Differential treatment in favour of developing countries, although integral to many multilateral environmental agreements, has assumed a unique form in the climate regime. The FCCC and Kyoto Protocol are the only multilateral environmental agreements that differentiate between countries with respect to central obligations, such that some have commitments while others do not. FCCC Article 4(2) containing 'specific commitments' is limited to industrial countries. The Kyoto Protocol requires certain developed country parties listed in Annex I to the FCCC to reduce their overall emissions of a basket of GHGs by at least 5 per cent below 1990 levels in the commitment period of 2008-12. The Kyoto Protocol's targets and timetables, like the 'specific commitments' in the FCCC, apply exclusively to industrial countries. Developing countries (non-Annex I) are required to implement qualitative GHG mitigation policies and measures.

Both these fundamental premises of the climate regime, as well as this unique form of differential treatment, have remained highly contentious through the years. The United States' rejection of the Kyoto Protocol in 2001 can, in large part, be traced to a resistance to these premises, and this form of differential treatment.¹⁷ While there is a shared understanding among states that a global climate regime is necessary, and that they

Kyoto Protocol, above note 9 at Article 3; FCCC, above note 8 at Article 4.2(b), also contained a target and a time frame, albeit not a country-specific one as in the Kyoto Protocol, above note 9 at Article 18.

¹⁵ FCCC, above note 8 at Article 3. 16 Ibid.

Text of letter from the President to Senators Hagel, Helms, Craig, and Roberts, The White House, Office of the Press Secretary (13 March 2001).