

## CLIMATE CHANGE LIABILITY

As frustration mounts in some quarters at the perceived inadequacy or speed of international action on climate change, and as the likelihood of significant impacts grows, the focus is increasingly turning to liability for climate change damage. Actual or potential climate change liability implicates a growing range of actors, including governments, industry, businesses, non-governmental organisations, individuals and legal practitioners. *Climate Change Liability* provides an objective, rigorous and accessible overview of the existing law and the direction it might take in seventeen developed and developing countries and the European Union. In some jurisdictions, the applicable law is less developed and less the subject of current debate. In others, actions for various kinds of climate change liability have already been brought, including high-profile cases such as *Massachusetts v. EPA* in the United States. Each chapter explores the potential for and barriers to climate change liability in private and public law.

RICHARD LORD QC is a London-based commercial litigator with over twenty-five years' experience, particularly of international disputes in the Commercial Court and in arbitration, and with a particular interest in private law aspects of climate change.

SILKE GOLDBERG is a Paris-based senior associate in Herbert Smith's global energy practice and a researcher in energy law at Rijksuniversiteit Groningen, The Netherlands.

LAVANYA RAJAMANI is a Professor at the Centre for Policy Research, New Delhi, where she writes, teaches and advises on international environmental law, in particular international climate change law and policy.

JUTTA BRUNNÉE is Professor of Law and Metcalf Chair in Environmental Law at the University of Toronto.



# CLIMATE CHANGE LIABILITY

Transnational Law and Practice

Edited by

RICHARD LORD

SILKE GOLDBERG

LAVANYA RAJAMANI

JUTTA BRUNNÉE



**CAMBRIDGE**  
UNIVERSITY PRESS

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](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9781107017603](http://www.cambridge.org/9781107017603)

© Oxfam International 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*

*Library of Congress Cataloguing in Publication data*

Climate change liability : transnational law and practice /  
[edited by] Richard Lord ... [et al.].

p. cm.

Includes bibliographical references and index.

ISBN 978-1-107-01760-3 (hardback) – ISBN 978-1-107-67366-3 (paperback)

1. Liability for climatic change damages. 2. Climatic changes–  
Law and legislation. 3. Conflict of laws–Liability for environmental damages.

I. Lord, Richard, 1959–

K955.C557 2012

344.04'6342–dc23

2011041581

ISBN 978-1-107-01760-3 Hardback

ISBN 978-1-107-67366-3 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.

# CONTENTS

<i>List of contributors and Editorial Board members</i>	viii
<i>Foreword</i>	xviii
<i>Acknowledgements</i>	xx
<i>List of abbreviations</i>	xxii
<b>PART I Legal, scientific and policy aspects</b>	<b>1</b>
1 Introduction	3
JUTTA BRUNNÉE, SILKE GOLDBERG, RICHARD LORD QC AND LAVANYA RAJAMANI	
2 The scientific basis for climate change liability	8
MYLES ALLEN	
3 Overview of legal issues relevant to climate change	23
JUTTA BRUNNÉE, SILKE GOLDBERG, RICHARD LORD QC AND LAVANYA RAJAMANI	
4 Policy considerations	50
JUTTA BRUNNÉE, SILKE GOLDBERG, RICHARD LORD QC AND LAVANYA RAJAMANI	
<b>PART II National laws</b>	<b>65</b>
<i>Asia and Pacific</i>	65
5 Australia	67
ROSS ABBS, PETER CASHMAN AND TIM STEPHENS	
6 China	112
DENG HAIFENG	
7 India	139
LAVANYA RAJAMANI AND SHIBANI GHOSH	

- 8 Indonesia 178  
MAS ACHMAD SANTOSA, JOSI KHATARINA  
AND RIFQI SJARIEF ASSEGAF
- 9 Japan 206  
YUKARI TAKAMURA
- Africa and the Middle East* 243
- 10 Egypt 245  
DALIA FAROUK AND LAMIAA YOUSSEF
- 11 Israel 272  
ISSACHAR ROSEN-ZVI
- 12 Kenya 296  
PATRICIA KAMERI-MBOTE AND COLLINS ODOE
- 13 South Africa 319  
JAN GLAZEWSKI AND DEBBIE COLLIER
- Europe and Eurasia* 349
- 14 European Union law 351  
LUDWIG KRÄMER
- 15 Germany 376  
HANS-JOACHIM KOCH, MICHAEL LÜHRS AND  
RODA VERHEYEN
- 16 Poland 417  
BARTOSZ KURAŚ, MACIEJ SZEWCZYK,  
DOMINIK WAŁKOWSKI, TOMASZ WARDYŃSKI AND  
IZABELA ZIELIŃSKA-BARŁOŻEK
- 17 England 445  
SILKE GOLDBERG AND RICHARD LORD QC
- 18 Russia 489  
FIONA MUCKLOW CHEREMETEFF, MAX GUTBROD,  
DARIA RATSIBORINSKAYA AND SERGEI SITNIKOV

	<i>North America</i>	523
19	Canada	525
	MEINHARD DOELLE, DENNIS MAHONY AND ALEX SMITH	
20	United States of America	556
	MICHAEL B. GERRARD AND GREGORY E. WANNIER	
	<i>Central and South America</i>	605
21	Brazil	607
	YANKO MARCIUS DE ALENCAR XAVIER AND PEDRO LUCAS DE MOURA SOARES	
22	Mexico	627
	JOSÉ JUAN GONZÁLEZ MARQUEZ	
	<i>Selected resources</i>	650
	<i>Index</i>	662

## CONTRIBUTORS AND EDITORIAL BOARD MEMBERS

### Contributors

ROSS ABBS B.A. (HONS), LL.B. (HONS) (NEWCASTLE), B.C.L. (OXON) is a Research Assistant at the Faculty of Law, University of Sydney.

DR MYLES ALLEN is Professor of Geosystem Science in the School of Geography and the Environment and Department of Physics, University of Oxford. He has served on the Intergovernmental Panel on Climate Change and leads the *climateprediction.net* project, using computing time donated by the public for climate research. His interests focus on uncertainty in climate analysis and prediction, particularly the challenge of attributing harm to human influence on climate.

RIFQI SJARIEF ASSEGAF is the head of the research division of the Presidential Task Force to Combat Corruption in the Enforcement System and senior researcher at the NGO Indonesian Institute for Judicial Independence (LeIP). He specialises in judicial reform, anti-corruption and access to information and is actively involved in research, legal drafting and policy advocacy in those areas. In 2005, he received The Asia Foundation 50th Anniversary Award in Recognition of Outstanding Contribution to Law Reform in Indonesia.

JUTTA BRUNNÉE is Associate Dean of Law (Graduate) and Professor of Law and Metcalf Chair in Environmental Law, University of Toronto. Her teaching and research interests are in the areas of Public International Law and International Environmental Law. She is co-author of *Legitimacy and Legality in International Law: An Interactional Account* (Cambridge University Press, 2010), which was awarded the American Society of International Law's 2011 Certificate of Merit for pre-eminent contribution to creative scholarship.



DR PETER CASHMAN is a barrister and Professor of Law (Social Justice) at the University of Sydney. He holds a degree in law and a diploma in criminology from the University of Melbourne and a Master of Laws degree and a Ph.D. from the University of London. He has practised law in the United Kingdom, the United States and Australia and is the author of numerous publications, including *Class Action Law and Practice*.

DR DEBBIE COLLIER B.A., LL.B. (RHODES UNIVERSITY), LL.M., PH.D. (UNIVERSITY OF CAPE TOWN) is an Attorney of the High Court of South Africa, a Senior Lecturer in the Department of Commercial Law at the University of Cape Town, and the Deputy Director of the Institute of Development and Labour Law.

PROFESSOR MEINHARD DOELLE, B.SC. (CHEMISTRY), LL.B. (DAL.), LL.M. (OSGOODE HALL), J.S.D. (DAL.), is an Associate Professor at Dalhousie University's Schulich School of Law. He serves as the Associate Director of the Marine and Environmental Law Institute and has written books on a variety of environmental law topics, of which his most recent are *Environmental Law: Cases and Materials* (2009) and *The Federal Environmental Assessment Process: a Guide and Critique* (2008).

DALIA FAROUK is a qualified lawyer registered at the Egyptian Bar Association and works as Pro Bono Counsel with law firm Sharkawy & Sarhan. She works on providing legal consultations to NGOs, social ventures, public interest projects and to eligible low-income individuals on various subjects of the law. She has also worked on general corporate issues.

MICHAEL B. GERRARD is Andrew Sabin Professor of Professional Practice at Columbia Law School in New York, where he teaches courses on environmental and energy law and directs the Center for Climate Change Law. He is Senior Counsel to Arnold & Porter LLP and has written or edited nine books, including *Global Climate Change and US Law* (2007) and *The Law of Clean Energy: Efficiency and Renewables* (2011).

SHIBANI GHOSH is a practising public interest lawyer specialising in environmental and access-to-information laws. She has litigated, among others, cases challenging environmental clearances granted to infrastructure projects. Shibani is also a Research Associate at the Centre for

Policy Research, New Delhi, and a member of the Legal Initiative for Forest and Environment (LIFE), New Delhi. She has previously worked as a legal consultant with the Central Information Commission, a quasi-judicial body set up under the Right to Information Act, 2005. Shibani holds the following degrees: B.A., LL.B. (Hons), B.C.L. (Oxon) and M.Sc. in Environmental Change and Management (Oxon).

JAN GLAZEWSKI is Professor in the Institute of Marine and Environmental Law at the Faculty of Law, University of Cape Town. He holds postgraduate degrees in law and Environmental Studies from the University of Cape Town, and a postgraduate law degree from the University of London. He is an Advocate of the High Court of South Africa and a member of the Cape Bar.

SILKE GOLDBERG, M.A., P.G.D.L. is a Paris-based Senior Associate in Herbert Smith's Global Energy practice and a Research Fellow in Energy Law at Rijksuniversiteit Groningen (Netherlands). Silke has experience in advising on energy and climate change transactions internationally as well as in European energy law and policy. She has published on issues of European energy law, emission trading and supply security.

PROFESSOR JOSE JUAN GONZALEZ, holds a degree in law (Mexico, 1981), an LL.M. in Economic Law (Mexico, 1984) and a Ph.D. in Environmental Law (Spain, 1999). He is a full Professor and Researcher at the Metropolitan Autonomous University in Mexico and head of its Environmental Law Ph.D. Among numerous other roles, he chairs the Mexican Institute for Environmental Law Research and is Director of the *Mexican Environmental Law Journal*. He has written several books and drafted the current Environmental Act of Mexico City.

MAX GUTBROD has been a Partner in the Moscow office of Baker & McKenzie for fifteen years and co-heads the firm's Russian Climate Change and Energy Efficiency Practice. In 2004, he started advising major foreign companies and Russian and foreign regulators on various climate change and energy efficiency matters (including Kyoto Protocol-related issues).

DENG HAIFENG is an Associate Professor of the law school of Tsinghua University, China, and General Secretary of its Centre for Environmental, Natural Resource and Energy Law. He is a Director of both the

Environmental Law Research Society of the China Law Science Society and the Environmental Law Research Society of Beijing Law Science Society, and the Associate General Secretary of the Environmental Law Society of the China Environmental Science Society.

PATRICIA KAMERI-MBOTE is a Professor of Law at Strathmore University. She studied law in Nairobi (LL.B., 1987), Warwick (LL.M. in Law and Development, 1989), Zimbabwe (Post-graduate Diploma in Women's Law, 1995) and Stanford (J.S.M., 1996 and J.S.D., 1999). Among other roles, she is an Advocate of the High Court of Kenya and Director of the International Environmental Law Research Centre. She has published widely on environmental law, women's rights and property rights.

JOSI KHATARINA has been working in the field of environmental law for twelve years and is a senior researcher at the Indonesian Center for Environmental Law (ICEL). She was the coordinator of the civil society coalition which shaped the development of the Indonesian Freedom of Information Act 2008. She is currently an Assistant of the Presidential Task Force to Combat Corruption in the Enforcement System.

PROF. DR HANS-JOACHIM KOCH is Professor at the University of Hamburg (Emeritus, 2010) and is a founder of the Research Centre for Environmental Law at the University of Hamburg. From 2002–08 he was Chairman of the German Advisory Council on the Environment (SRU) and, since 2005, has been Chairman of the Association for Environmental Law (*Gesellschaft für Umweltrecht e. V.*).

LUDWIG KRÄMER studied law and history in Kiel, Munich and Paris and has an LL.D. from Hamburg University. Until 2004, he was both a Judge at the Landgericht, Kiel and an Official of the Commission of the European Communities. He is a Visiting Professor at University College London and was, until 2010, Lecturer at the College of Europe, Bruges. He has published some twenty books and more than two hundred articles on EU environmental law.

BARTOSZ KURAŚ, LL.M. is a lawyer in the Environmental Law Practice Group and M & A Group at Wardyński & Partners. He graduated from the Faculty of Law and Administration at the Adam Mickiewicz University in Poznań (2006) and the Faculty of Law at the Albert-Ludwigs-Universität in Freiburg (2008) and is currently working to obtain a Ph.D. in the

Agricultural Law Department at the Adam Mickiewicz University in Poznań.

RICHARD LORD QC is a commercial litigator with over twenty-five years' experience, particularly of international disputes in the Commercial Court and in arbitration. His specialist subjects are insurance and maritime law, and he has also developed a particular interest in private law aspects of climate change. He acts as a mediator and arbitrator, and has written textbooks on Bills of Lading and the Arbitration Act.

MICHAEL LÜHRS studied law in Berlin and is an Attorney at Law. He specialised in emissions trading and planning law and is currently working on his Ph.D. on climate liability in German civil law.

DENNIS MAHONY is the head of Torys' Environmental, Health and Safety Practice Group and Co-Chair of the firm's interdisciplinary Climate Change and Emissions Trading Practice. He is the International Vice-Chair of the Energy and Environmental Markets and Finance Committee of SEER and the editor and one of the principal authors of *Law of Climate Change in Canada*. He is certified by the Law Society of Upper Canada as a Specialist in Environmental Law.

FIONA MUCKLOW CHEREMETEFF is an English solicitor and a non-resident Research Associate at the TMC Asser Institute in The Hague. Fiona's practice focuses primarily on banking, finance, environmental (climate change) and public international law matters. She is co-editor of *Environmental Finance and Socially Responsible Business in Russia: Legal and Practical Trends* (2010).

DR COLLINS ODOYE holds LL.B., LL.M. and Ph.D. degrees in law from the University of Nairobi. He teaches environmental jurisprudence, land use and international environmental law at the University of Nairobi and is currently engaged as a postdoctoral research fellow at Strathmore University. He also chairs the Board of The Institute for Law and Environmental Governance (ILEG), a Nairobi-based NGO.

LAVANYA RAJAMANI is a Professor at the Centre for Policy Research, New Delhi. She was previously a university Lecturer in Environmental Law, and Fellow and Director of Studies in Law at Queens' College, Cambridge. She is author of *Differential Treatment in International Environmental Law* (2006), co-editor of *Promoting Compliance in an Evolving Climate Regime*

(Cambridge University Press, 2011), *Implementation of International Environmental Law* (2011) and numerous articles. She has worked as a Consultant to the UN Framework Convention on Climate Change Secretariat, the Indian Ministry of Environment and Forests, the Danish Ministry of Climate Change and Energy, the UNDP, the World Bank and the Alliance of Small Island States.

DARIA RATSIBORINSKAYA is an environmental lawyer who has experience in both European and national environmental law in Moscow, Brussels and Amsterdam. She read law at the MGIMO-University of Moscow and was awarded an LL.M. in International and European Environmental Law from the University of Amsterdam. She currently combines lecturing and doctorate research at the Erasmus University of Rotterdam.

ISSI ROSEN-ZVI teaches Environmental Law, Local Government Law, Administrative Law and Civil Procedure at the Faculty of Law, Tel Aviv University. He obtained his LL.B. (*magna cum laude*) from Bar-Ilan University, his LL.M. in law and sociology (*summa cum laude*) from Tel Aviv University and his J.S.D. from Stanford Law School. He has published several articles and a book entitled *Taking Space Seriously* (2004).

MAS ACHMAD SANTOSA is a founder and Board Chairperson of the Indonesian Center for Environmental Law (ICEL) and has been a Senior Lecturer in Environmental Law in the law school, University of Indonesia since 1990. In 2010 he was appointed by the President of the Republic of Indonesia as Acting Commissioner for the Corruption Eradication Commission. He is a member of the Presidential Task Force to Combat Corruption in the Enforcement System and the Commission on Environmental Law of IUCN, and is Senior Advisor for Human Rights, Legal Reform and Access to Justice of UNDP Indonesia.

SERGEI SITNIKOV co-heads the Russian Climate Change and Energy Efficiency Practice in Baker & McKenzie's Moscow office. He regularly participates in Russian and international conferences and advises clients on issues relating to the development of energy efficiency related projects and the implementation of the Kyoto Protocol. He has written numerous journal articles and is co-author of *Trading in Air: Mitigating Climate Change through the Carbon Markets* (2010).

ALEX SMITH is a Litigator at Torys LLP in Toronto and a contributing author to *The Law of Climate Change in Canada*.

PEDRO LUCAS DE MOURA SOARES is an independent environmental lawyer in Natal-RN, Brazil.

DR TIM STEPHENS B.A. (HONS), LL.B. (HONS) (SYD.), M.PHIL. (CANTAB), PH.D. (SYD.) is a Senior Lecturer at the Faculty of Law, University of Sydney, Co-Director of the Sydney Centre for International Law and co-editor of the *Asia Pacific Journal of Environmental Law*. He has published widely, including *International Courts and Environmental Protection* (Cambridge University Press, 2009). He received the 2010 IUCN Academy Junior Scholarship Prize for his environmental law research.

MACIEJ SZEWCZYK is a lawyer in the Environmental Law Practice Group and M & A Group at Wardyński & Partners, specialising in environmental protection law as well as M & A transactions. He graduated from the Faculty of Law and Administration at the Adam Mickiewicz University in Poznań (2007).

YUKARI TAKAMURA is a Professor in international law at Nagoya University, Japan, specialising in international environmental law and climate law and policy. She has published many books and articles, including the recently published 'Do markets matter? The role of markets in the post-2012 international climate regime' in T. Sawa, S. Iai and S. Ikkatai (eds.), *Achieving Global Sustainability* (2011).

DR. RODA VERHEYEN is a practising Attorney at Law in the Hamburg law firm Rechtsanwältin Günther and former Director of the Climate Justice Programme. She has experience of and is bringing cases arguing climate change in planning law (road construction, waterways, municipal land-use plans), licensing of coal plants, and under coastal protection and water law.

DOMINIK WAŁKOWSKI is a lawyer in the Environmental Law Practice Group at Wardyński & Partners, specialising in environmental protection law. He graduated in International Relations (majoring in European Law, Economy and Culture) from the Adam Mickiewicz

University in Poznań (2003) and from the university's Faculty of Law and Administration (2004), and is currently working to obtain a Ph.D. in the Department of International Public Law at the Adam Mickiewicz University in Poznań.

GREG WANNIER is a Post-doctoral Research Scholar and Deputy Director of the Center for Climate Change Law (CCCL) at Columbia Law School. He received his J.D. from Stanford Law School, where he served as President of the Environmental Law Society and editor-in-chief of the *Stanford Journal of Law, Science & Policy*. He also graduated *summa cum laude* from UCLA with a joint B.A./B.S. in International Politics and Evolutionary Biology, and earned a Master's degree in Environmental Policy from the E-IPER program at Stanford University's School of Earth Sciences.

TOMASZ WARDYŃSKI, CBE, is an *adwokat* and founding partner of Wardyński & Partners. He is listed as an Arbitrator at the Polish Chamber of Commerce's Court of Arbitration, the Arbitration Court at the Polish Confederation of Private Employers Lewiatan, and the International Arbitral Centre of the Austrian Federal Economic Chamber (VIAC) in Vienna. He is a member of the Warsaw Bar. Tomasz Wardyński is active in the International Bar Association, in particular its Legal Practice Division.

YANKO MARCIUS DE ALENCAR XAVIER is full Professor, Faculty of Law, Universidade Federal do Rio Grande do Norte-UFRN, Natal-RN, Brazil, Chair of the Natural Resources and Energy Law Research Group and Member of the Academic Advisory Group of the International Bar Association's section on Energy, Environment, Natural Resources and Infrastructure Law.

LAMIAA YOUSSEF is an admitted Egyptian attorney and heads the Pro Bono Department of law firm Sharkawy & Sarhan. She is currently enrolled in the LL.M. in International and Comparative Law at the American University in Cairo.

IZABELA ZIELIŃSKA-BARŁOŻEK is a legal adviser and Partner, leading the Environmental Law Practice Group at Wardyński & Partners and specialising in environmental protection law as well as corporate and commercial transaction law. She is a Vice Chair of the Environmental Law Practice for Europe/Middle East/Africa in Lex Mundi.

### Editorial Board members

**BEN BOER** is Emeritus Professor in Environmental Law at the University of Sydney. Formerly, he was Professor in Environmental Law. He continues to teach in various units of study in the Master's programme. He has published widely in the area of environmental and natural resources law and policy, and is currently focusing his research on biodiversity, climate change and protected areas law. For further information and publications see <http://sydney.edu.au/law/about/staff/BenBoer/>.

**JAMES CAMERON** is the founder and Vice Chairman of Climate Change Capital. A barrister, entrepreneur and pre-eminent expert in developing policy response to climate change, James represents the firm at the highest levels of business and government. He is a member of the Prime Minister's Business Advisory Group, GE's Ecomagination Advisory Board and Pepsico UK's Advisory Board, and Chairman of the World Economic Forum's Agenda Council on Climate Change.

**DANIEL FARBER** is the Sho Sato Professor of Law and Chairman of the Energy and Resources Group at the University of California, Berkeley. He is also the Faculty Director of the Center for Law, Energy, and the Environment. Professor Farber is a member of the American Academy of Arts and Sciences and a life member of the American Law Institute.

**SIR SYDNEY KENTRIDGE QC** was admitted as an Advocate of the Supreme Court of South Africa in 1949 and appointed Senior Counsel in 1965. He was called to the English Bar (Lincoln's Inn) in 1977, joining 1 Brick Court (now Brick Court Chambers) and took Silk in 1984. He has been Chairman of the Johannesburg Bar (1972–89), a Judge of Appeal in Botswana (1981–89), a Judge of the Courts of Appeal of Jersey and Guernsey (1988–92) and an Acting Justice in the South African Constitutional Court (1995–6). His practice covers all fields of constitutional law, human rights law and commercial law.

**RICHARD MACRORY QC** is a barrister and Professor of Law at University College London where he is Director of the Centre for Law and the Environment and the UCL Carbon Capture Legal Programme. Professor Macrory has been a board member of the Environment Agency in England and Wales, and a member of the Royal Commission on



Environmental Pollution. He was first Chairman of the UK Environmental Law Association and is currently a Patron of the Association.

M. C. MEHTA is a noted environmental lawyer in the Supreme Court of India. He has been successful in obtaining landmark judgments and orders for the protection of the environment, human rights and the cultural heritage of India. He has been instrumental in the advancement of the Right to a Healthy Environment, the Public Trust Doctrine, the principle of Strict and Absolute Liability, and the Exemplary Damages, Polluter Pays and Precautionary principles through Environmental Public Interest litigation. He also believes in working at the grassroots level in order to create awareness of the environment, conservation and protection of natural resources through peoples' movements. He has been presented with many awards, including the UNEP Global 500 Award, the Ramon Magsaysay Award for Asia and the Goldman Environmental Prize for Asia.

PHILIPPE SANDS QC is a barrister at Matrix Chambers, practising in public international law. He appears regularly before English and international courts. He is a Professor of Laws and Director of the Centre of International Courts and Tribunals at University College London. He is author of *Torture Team: Rumsfeld's Memo and the Betrayal of American Values* (2008) and *Lawless World: America and the Making and Breaking of Global Rules* (2005, 2006).

SONG YING is Associate Professor of Public International Law at the School of Law of Peking University, China. She is a member of the editorial board of the *Chinese Yearbook of International Law*. Her main research areas are international environmental law and the external relations law of the European Union. She acts as expert and counsel for China and various international organisations.

JAAP SPIER obtained his Mag. Iuris from Erasmus University, Rotterdam and his Ph.D. (Doctor iuris) from Leyden University (1981). He is Attorney-General in the Supreme Court of The Netherlands, Honorary Professor of Comparative Insurance Law at Maastricht University and founder and Honorary President of the European Group on Tort Law. He is the author and editor of various books and articles, including in the field of climate change.

## FOREWORD

Mary Robinson, Honorary President Oxfam International and President of Mary Robinson Foundation – Climate Justice

Climate justice links human rights and development to achieve a human-centred approach, thus safeguarding the rights of the vulnerable and sharing the burdens and benefits of climate change and its resolution equitably and fairly. As such, climate justice incorporates the principle of corrective justice – the idea that those who have contributed most to the global stock of greenhouse gas emissions have a moral obligation to make significant emissions reductions in order to avoid dangerous climate change. This is necessary as the countries and people who are most vulnerable to climate change are those who contributed least to the problem.

Climate justice can also be used to assign liability for past and projected contributions to climate change. This can assist the most marginalised and disenfranchised in our global community to find justice through the courts, thus paving the path for financial reparations through distributive justice. It can also be used, along with moral suasion and multi-lateral political and legal agreements, to insist on equitable burden-sharing and greater equality through financial assistance and technology transfer.

However, assigning climate change liability for those seeking redress or basic compensation from corporations or governments who refuse to act and who are seen to have violated basic human rights creates a number of problems. First, it is difficult to establish causality between the harm done or tortious act and the direct damage suffered. Secondly, it is difficult to establish liability and apportion damages accordingly. Thirdly, it may be difficult to establish legal standing or *locus standi* for petitioners before the courts.

This book sets out the legal principles underpinning climate change liability. It offers an extensive and comprehensive overview of national climate change policies and legislation as well as different rights-based legal

arguments in various jurisdictions that could be used to achieve climate justice at a national level. Notwithstanding the climate justice opportunities potentially afforded by litigation, the need for a new legally binding agreement under the United Nations Framework Convention on Climate Change (UNFCCC) remains vital. Only a legally binding international framework can ensure that actions will be taken to reduce emissions and to protect the most vulnerable from the potentially catastrophic impacts of climate change.

## ACKNOWLEDGEMENTS

We acknowledge with gratitude the support and assistance which we, and this book, have received from so many quarters. All those associated with this project have given generously of their time and their wisdom. Some deserve particular recognition.

We owe a debt of gratitude to those who first conceived the idea of a comparative study of national laws pertaining to climate change liability, and especially to Jaap Spier, Advocate-General in the Supreme Court of the Netherlands and Honorary Professor of comparative insurance law at Maastricht University. We are pleased to have Professor Spier as an Editorial Board member, providing continuity between the first seeds of an idea and the current book.

Whilst the book is a rigorous academic study independent from any political influence by any organisation, we would like to thank Jasper Teulings, General Counsel of Greenpeace International, Joss Saunders, General Counsel of Oxfam and Niall Watson, Programmes Legal Adviser at WWF-UK for their continued support and encouragement.

Special thanks are also due to Oxfam for funding a conference in January 2011 which enabled authors and editors of this book to exchange ideas and which sowed the seeds for a very fruitful cooperation between authors across various jurisdictions.

All of the authors and Editorial Board members have toiled diligently, and without complaint or reward, to create what we hope is a rich store of information and learning and distil it into a book which, if not quite pocket size, will be portable and accessible to many.

Cambridge University Press, our publishers, have been supportive and understanding of the difficulties in finalising within a short timeframe a book to which so many have contributed. We are grateful to them in making possible our ambition to publish the book in time for COP 17 in Durban.

Finally, and in a class of her own, it is impossible to overstate the importance of the pivotal role in this book played by Pascale Bird, our

project manager. She has spent uncounted and uncountable hours in keeping the project and its numerous participants on track, with unfailing patience, good humour and dedication, and has engaged in a huge variety of tasks from the almost sublime to the immensely tedious. Without Pascale, there would have been no book.

We have endeavoured to ensure that the law and factual material stated is correct as at 31 March 2011 except where otherwise stated in the relevant chapter.

Each editor and contributing author is acting solely in their individual private capacity. Any information presented, and any views or opinions expressed, do not represent the views of any employing institution and should not be ascribed to the same.

## ABBREVIATIONS

AAU:	Assigned Amount Units
ACESA:	US American Clean Energy and Security Act
AF(B):	Adaptation Fund (Board)
AGF:	Advisory Group on Climate Change Financing
AIJ:	Activities Implemented Jointly
ALBA:	Bolivia, Cuba, Ecuador, Nicaragua and Venezuela
Annex I Parties:	Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Union, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom and the United States of America.
AOSIS:	Alliance 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 Co-operative Action under the Framework Convention on Climate Change
BAP:	Bali Action Plan 2007
BASIC:	Brazil, South Africa, India and China
BAU:	Business As Usual
BRIC:	Brazil, Russia, India and China
CACAM:	Central Asia, Caucasus, Albania and Moldova
CAN:	Climate Action Network
CBD:	Convention on Biological Diversity
CBDR:	Common But Differentiated Responsibilities
CC:	Compliance Committee
CCL:	Climate Change Levy
CCS:	Carbon Capture and Storage
CDE:	Carbon Dioxide Equivalent (in g/kg/t)
CDM:	Clean Development Mechanism
CDP:	Carbon Disclosure Project

CERs:	Certified Emission Reductions (issued by CDM)
CGE:	Consultative Group of Experts on National Communications from Parties not included in Annex I Parties
CMP:	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
COP:	Conference of the Parties to the Kyoto Protocol
CRF:	Common Reporting Format (for all Annex I Parties)
CRPs:	Conference Room Papers
CTCN:	Climate Technology Centre and Network
DER:	Direct Emission Reduction
DNA:	Designated National Authority
ECBI:	European Capacity Building Initiative
ECHR:	European Convention on Human Rights
ECJ:	European Court of Justice
EGTT:	Expert Group on Technology Transfer
EIA:	Environmental Impact Assessment
EIA:	Environmental Investigation Agency
EIT:	Countries with Economies in Transition
EPA:	US Environmental Protection Agency
ERPA:	Emission Reduction Purchase Agreement
ERRs:	Emission Reduction Rights
ERU:	Emission Reduction Unit
ETS:	Emissions Trading System
EU ETS:	European Union ETS
EUA:	European Union Allowances
G-77/China:	Coalition of 77 developing nations and China
GCF:	Green Climate Fund/Global Climate Fund/Governors' Climate and Forest Task Force
GEF:	Global Environmental Facility
GHG:	Greenhouse Gas
GNI:	Gross National Income
GWP:	Global Warming Potential
ICA:	International Consultation and Analysis
ICAO:	International Civil Aviation Organisation
ICSTD:	International Centre for Trade and Sustainable Development
IET:	International Emissions Trading
IIED:	International Institute for Environmental Development and Policy
IIGCC:	Institutional Investors Group on Climate Change
IISD:	International Institute for Sustainable Development
IMO:	International Maritime Organisation
INCR:	Investor Network on Climate Risk
IPCC:	Intergovernmental Panel on Climate Change

ITL:	International Transaction Log
JI:	Joint Implementation
LDCF:	Least Developed Countries Fund
LDCs:	Least Developed Country Parties
LEG:	Least Developed Countries Expert Group
LRI:	Legal Response Initiative
LRTAP:	Convention on Long Range Transboundary Air Pollution
LU:	Land Use
LULUCF:	Land Use, Land Use Change and Forestry
MDB:	Multilateral Development Bank
MRV:	Monitoring, Reporting and Verification
MVC:	Most Vulnerable Country
NAI:	Non-Annex I Countries
NAMAs:	Nationally Appropriate Mitigating Actions
NAPAs:	National Adaptation Programmes of Action (for LDCs)
NWP:	Nairobi Work Programme
ODA:	Official Development Assistance
OECD:	Organisation for Economic Co-operation and Development
OLCA:	Overseas Low Carbon Aid
PLO:	Public Liaison Officer
QELRC:	Quantified Emissions Limitation or Reduction Commitments
QELRO:	Quantified Emissions Limitation and Reduction Objectives
REDD+:	Reducing Emissions from Deforestation and Forest Degradation in developing countries (Supporting forest conservation, sustainable management of forests and enhancement of forest carbon stocks)
ROC:	Renewal Obligation Certificate
SBI:	Subsidiary Body for Implementation
SBSTA:	Subsidiary Body for Scientific and Technological Advice
SCCF:	Special Climate Change Fund
SICA:	Central American Integration System
SIDS:	Small Island Developing States
TEC:	Technology Executive Committee
UNCCD:	United Nations Convention to Combat Desertification
UNDRIP:	United Nations Declaration on Rights of Indigenous Peoples
UNEP:	United Nations Environment Programme
UNEPFI:	United Nations Environment Programme Finance Initiative
UNFCCC:	United Nations Framework Convention on Climate Change
VCUs:	Voluntary Carbon Units
VER:	Voluntary Emission Reductions
WBCSD:	World Business Council on Sustainable Development