CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

'This is a very rare book. A scientific book about climate change that deals both with the science and with our own personal response to this science. It does all this supremely well, and should be compulsory reading for both sceptics and believers. However, it does so much more; it is a book of great modesty and humanity. It uses climate change to ask broader questions about our own beliefs, assumptions and prejudices, and how we make individual and collective decisions.'

Chris Mottershead, Distinguished Advisor, BP plc

'In this personal and deeply reflective book, a distinguished climate researcher shows why it may be both wrong and frustrating to keep asking what we can do for climate change. Exploring the many meanings of climate in culture, Hulme asks instead what climate change can do for us. Uncertainty and ambiguity emerge here as resources, because they force us to confront those things we really want – not safety in some distant, contested future, but justice and self-understanding now. Without downplaying its seriousness, Hulme demotes climate change from ultimate threat to constant companion, whose murmurs unlock in us the instinct for justice and equality.'

Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Harvard University

'This book is a "must read" for anyone interested in the relationship between science and society. As we know from the controversies over GM crops and MMR, by the time science hits the headlines, and therefore the public consciousness, it's always about much more than the science. This fascinating book shines a light on this process by revealing how climate change has been transformed from a physical phenomenon, measurable and observable by scientists, into a social, cultural and political one.

Everyone must surely recognise Hulme's description of the way that climate change has become a kind of Christmas tree onto which we all hang our favourite baubles, and Hulme highlights the way in which the issue has been appropriated by so many different groups to promote their own causes. Believers in turning the clock forward and using more advanced technology,

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

and those who argue that we should turn the clock back and live more simply, can equally claim that climate change supports their case.

Over the past few years Hulme has bravely spoken out against what some have described as "climate porn": the tendency of some sections of the scientific community and the media to present climate change in ever more catastrophic and apocalyptic terms. This book elaborates on Hulme's hostility to the language of "imminent peril" and calls for a different discourse.

This book is so important because Mike Hulme cannot be dismissed as a sceptic, yet he is calling for a complete change in the way we discuss climate change. Whether or not people agree with his conclusions – this book is a challenging, thought-provoking and radical way to kick-start that discussion.'

Fiona Fox, Director, Science Media Centre, London

'With empirical experience that includes seven years leading the influential Tyndall Centre, Professor Hulme here argues that science alone is insufficient to face climate change. We also "need to reveal the creative psychological, spiritual and ethical work that climate change can do and is doing for us". It is the very "intractability of climate change", its sociological status as a 'wicked' problematique, that requires us to reappraise the "myths" or foundational belief systems in which the science unfolds. That returns Hulme to the bottom-line question: "What is the human project ultimately about?" – and herein resides this book's distinctive importance.'

Alastair McIntosh, author of 'Hell and High Water: Climate change, hope and the human condition', and Visiting Professor of Human Ecology at the Department of Geography and Sociology, University of Strathclyde

'A much needed re-examination of the idea of climate change from a vantage point that takes its cultural co-ordinates as seriously as its physical properties. Through the twin lenses of scientific scrutiny and rhetorical analysis, Mike Hulme helps us to see just why we disagree about climate change and what we can do about it. With wisdom, wit and winsome writing, he shows us that debates about climate change turn out to be disputes about ourselves – our hopes, our fears, our aspirations, our identity. Hindsight, insight and foresight combine to make this book a rare treat.'

David N. Livingstone, Professor of Historical Geography, Queen's University Belfast

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

'In the crowded and noisy world of climate change publications, this will stand tall. Mike Hulme speaks with the calm yet authoritative voice of the integrationist. He sees climate change as both a scientific and a moral issue, challenging our presumed right to be "human" to our offspring and to the pulsating web of life that sustains habitability for all living beings. As a unique species, we have the power to create intolerable conditions for the majority of our descendents. Yet we also have the scientific knowledge, the economic strength, and the political capacity to change direction and put a stop to avoidable calamity. This readable book provides us with the necessary argument and strategy to follow the latter course.'

Tim O'Riordan, Emeritus Professor of Environmental Sciences, University of East Anglia

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

WHY WE DISAGREE ABOUT CLIMATE CHANGE

Climate change is not 'a problem' waiting for 'a solution'. It is an environmental, cultural and political phenomenon which is reshaping the way we think about ourselves, our societies and humanity's place on Earth. Drawing upon twenty-five years of professional work as an international climate change scientist and public commentator, Mike Hulme provides a unique insider's account of the emergence of this phenomenon and the diverse ways in which it is understood. He uses different standpoints from science, economics, faith, psychology, communication, sociology, politics and development to explain why we disagree about climate change. In this way he shows that climate change, far from being simply an 'issue' or a 'threat', can act as a catalyst to revise our perception of our place in the world. *Why We Disagree About Climate Change* is an important contribution to the ongoing debate over climate change and its likely impact on our lives.

MIKE HULME is Professor of Climate Change in the School of Environmental Sciences at the University of East Anglia (UEA), and founding Director of the Tyndall Centre for Climate Change Research. He has published over a hundred peer-reviewed journal papers and over thirty books or book chapters on climate change topics. He has prepared climate scenarios and reports for the UK Government, the European Commission, UNEP, UNDP, WWF International and the IPCC. He is currently leading the EU integrated research project ADAM (Adaptation and Mitigation Strategies), a consortium of twenty-six institutes contributing research to the development of EU climate policy during the period 2006–9. He co-edits the journal *Global Environmental Change* and is Editor-in-Chief of Wiley's *Interdisciplinary Reviews: Climate Change*. He is a frequent speaker about climate change at academic, professional and public events, and writes frequently for the media.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

Why We Disagree About Climate Change

UNDERSTANDING CONTROVERSY, INACTION AND OPPORTUNITY

Mike Hulme

School of Environmental Sciences,
University of East Anglia

CAMBRIDGE
UNIVERSITY PRESS

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

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

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/9780521727327

© Mike Hulme 2009

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 2009

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
Hulme, M. (Michael)
Why we disagree about climate change : understanding controversy,
inaction and opportunity / Mike Hulme.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-521-89869-0 (hbk.)
1. Climatic changes. 2. Climatic changes–Government policy.
3. Environmental policy. I. Title.
QC981.8.C5H825 2009
363.738'74–dc22
2009004684

ISBN 978-0-521-89869-0 hardback
ISBN 978-0-521-72732-7 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 book, and does not guarantee that any content on such
websites is, or will remain, accurate or appropriate.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

To my father, Ralph Hulme (1924–1989),
who taught me that disagreeing was a form of learning

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

A good place to look for wisdom … is where you least expect to find it: in the minds of your opponents.

Jonathan Haidt (2006)

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

Contents

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

List of Figures

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

List of Tables

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

List of Boxes

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

Acknowledgments

This book was conceived in February 2003 while I was browsing in the bookshop of Church House in London, was subsequently gestated during my remaining tenure as Director of the Tyndall Centre, and was brought to fruition during a period of study leave granted me by the University of East Anglia (UEA). I would like to thank all of my colleagues in the Tyndall Centre for introducing me to many of the ideas discussed here and for providing such a stimulating environment in which to observe, think and talk about climate change. Many of these colleagues have discussed with me some of the ideas contained in this book – and at times very helpfully disagreed! I would like to thank in particular those who have read and commented on draft extracts or chapters: Tim O'Riordan, Irene Lorenzoni, Natasha Grist, John Turnpenny, Sam Randalls, Tom Lowe, Asher Minns, Saffron O'Neill, Lorraine Whitmarsh, Jacqueline de Chazal, Nick Brooks, David Livingstone, Neil Adger, Joe Smith, Dave Ockwell, Christopher Shaw, Chuks Okereke, Sarah Dry, Neil Jennings, Don Nelson and Mark Charlesworth. Suraje Dessai is deserving of particular appreciation, not only for commenting on drafts of individual chapters, but more importantly for the countless engaging and provocative conversations about climate change that we have enjoyed over nine fruitful years of

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

working together. The book also benefited from invitations received from Science and Technology Policy Research at the University of Sussex, the Faraday Institute at the University of Cambridge, and the Lincoln Theological Institute at the University of Manchester, where I was able to present some of the ideas contained here.

My – as yet unfinished – graduate diploma in the UEA School of History opened up for me new perspectives on the nature and writing of history, perspectives that were essential in equipping me for the task of writing this book. I also thank the 2007/8 cohort of forty-four Masters students at UEA who took my climate change module while this book was taking shape. A number of my ideas were tried out on these students and the seminar debates that we enjoyed offered some good new perspectives on why we disagree about climate change. Phil Judge did a thoroughly professional job in re-drawing a number of the figures in the book, while Chris Harrison at Cambridge University Press embraced the project with enthusiasm and, together with Philip Good, guided it through its commissioning and production stages. Finally I thank Gill and Emma for being, as always, my most honest critics and my most loyal supporters.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

Foreword

When I first entered the field of climate change policy research, a little over two decades ago, I was warned by a former deputy administrator of the US Environmental Protection Agency that I was wasting my time because: 'Climate change will never be a major public policy issue.' He advanced three reasons for this: 'The science is too uncertain, the impacts are too far in the future, and there is no readily identifiable villain.' My response was that these were exactly the kinds of reasons why climate change would become a major policy issue. It was precisely the plasticity of climate change – its ability to be many things to many people – that would ensure its claim to sustained public attention.

Ten years later, hard on the heels of the Kyoto Protocol, I led the publication of a state-of-the-art report on the social science research relevant to climate change[1] that confirmed what we have subsequently recognised as the 'wickedness' of climate change as an issue. Wickedness in this sense is not a moral judgement (although to some people climate change is the consequence of an unethical industrial

[1] Rayner, S. and Malone, E.L. (eds) (1998) *Human choice and climate change* (4 vols). Battelle Press: Columbus, OH.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

lifestyle). Originating in the study of urban planning,[2] it is a way of describing problems of mind-bending complexity, characterised by 'contradictory certitudes' and thus defying elegant, consensual solutions.

As Mike Hulme lays out in this volume, a further decade on, climate change is not so much a discrete problem to be solved as it is a condition under which human beings will have to make choices about such matters as priorities for economic development and the way we govern ourselves. Our recognition of climate change as a threat to the ways of life to which we are accustomed and which we value depends on our views of Nature, our judgements about scientific analysis, our perceptions of risk, and our ideas about what is at stake – economic growth, national sovereignty, species extinction, or the lives of poor people in marginal environments of developing countries – and whether it is ethically, politically, or economically justifiable to make trade-offs between these.

Even when scientists, politicians and publics agree on the basic principles and most robust findings of climate science, there is still plenty of room for disagreement about what the implications of that science are for action. The notion that science 'drives' consensus on policy and that better science will settle our differences ignores the roots of these differences in political, national, organisational, religious and intellectual culture. What is taken for granted among one group of people is 'uncomfortable knowledge' that is hard for another to accept because of its implications for ideas and resource commitments that they hold dear.[3]

Why We Disagree About Climate Change advances this sociological perspective on climate debates in at least two important ways. Firstly, it is written by a distinguished climate scientist. In the field of

[2] Rittel, H. and Webber, M. (1973) Dilemmas in a general theory of planning. *Policy Sciences* 4(2), 155–69.

[3] Thompson, M. and Rayner, S. (1998) Cultural discourses, pp. 265–344, in Rayner and Malone (eds), *Human choice and climate change*.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

climate change, scientists, politicians and journalists are likely to take the views of natural scientists more seriously than those of anthropologists, sociologists or political scientists, even when the issues are concerned with the behaviour of social systems rather than natural systems. This applies even when those scientists' own specialisations have only a tangential connection with climate science (as is the case with at least two former Chief Scientists of the UK Government who have insisted that climate modelling is robust beyond question). As science has become the ultimate source of legitimacy in contemporary society, many of its practitioners act as though they are guardians of unquestionable doctrine, telling us that 'the science of climate change is settled' (and, by implication, climate policy is settled also). On the other hand, climate science specialists, like Hulme, who are closer to the point of production of climatological knowledge, are fully aware of the inevitable gaps and ambiguities in the science, and therefore of the necessity for strategic social and political dialogue about how to respond in the light of epistemological uncertainty and competing social values.

But secondly, and perhaps more importantly, Mike Hulme has done more than simply lend his scientific authority to the sociological and anthropological insights into climate debates. He goes further than even most social scientists have dared, by pointing out that climate change debates are more than merely a peg on which different interest groups can hang their particular agendas. Rather, climate change provides a much needed arena and stimulus for public discussion of the big issues of our time.

Climate is more than just a coercive resource to be mobilised behind different visions of humanity and its future. It has become the key narrative within which political issues from the local to the global are framed. In that sense, debate around climate has succeeded debate around capital and social class as the organising theme of political discourse in contemporary society. Hulme concludes that: 'Rather than placing ourselves in a "fight against climate change" we need

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

a more constructive and imaginative engagement with the idea of climate change.' Paraphrasing John F. Kennedy, he argues that 'we need to ask not what we can do for climate change, but to ask what climate change can do for us?' We should, he says, 'use climate change both as a magnifying glass and as a mirror': as a magnifier, to focus our attention on the long-term implications of short-term choices in the context of material realities and social values; and as a mirror, to 'attend more closely to what we really want to achieve for ourselves and for humanity'.

Hence, the plasticity of what is conveyed by the term 'climate change' is not merely an obstacle to agreement on elegant solutions (such as carbon trading), or even to the emergence of what have been variously called 'clumsy solutions' or 'incompletely theorised agreements'.[4] It provides the public arena and the vocabulary, even (perhaps ironically in view of the dangers presented by climate itself) the 'safe' virtual space in which people can confront each other with rival world-views, competing ideals of the social good, and conflicting economic commitments. As Hulme clearly demonstrates in this book, reducing this rich and complex public discourse about the nature of 'the good' simply to a technical or even political debate about the 'acceptable' level of carbon dioxide in the atmosphere is simply to miss the point.

Steve Rayner
James Martin Professor of Science and Civilization,
University of Oxford

[4] Verweij, M. and Thompson, M. (eds) (2006) *Clumsy solutions for a complex world: governance, politics and plural perceptions*. Palgrave Macmillan: Basingstoke, UK; and Sunstein, C. (1995) Incompletely theorized agreements. *Harvard Law Review* 108, 1733–72.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

Preface

Why We Disagree About Climate Change is a book about the idea of climate change: where it came from, what it means to different people in different places, and why we disagree about it. It is a book which also develops a different way of approaching the idea of climate change and of working with it.

I deliberately present climate change as an idea as much as I treat it as a physical phenomenon that can be observed, quantified and measured. This latter framing is how climate change is mostly understood by scientists, and how science has presented climate change to society over recent decades. But, as society has been increasingly confronted with the observable realities of climate change and heard of the dangers that scientists claim lie ahead, climate change has moved from being predominantly a physical phenomenon to being simultaneously a social phenomenon. And these two phenomena are very different. As we have slowly, and at times reluctantly, realised that humanity has become an active agent in the reshaping of physical climates around the world, so our cultural, social, political and ethical practices are reinterpreting what climate change means. Far from simply being a change in physical climates – a change in the sequences of weather

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

experienced in given places – climate change has become an idea that now travels well beyond its origins in the natural sciences. And as this idea meets new cultures on its travels and encounters the worlds of politics, economics, popular culture, commerce and religion – often through the interposing role of the media – climate change takes on new meanings and serves new purposes.

In *Why We Disagree About Climate Change*, I examine this mutating idea of climate change. I do so using the concepts, tools and languages of the sciences, social sciences and humanities, and the discourses and practices of economics, politics and religion. As we examine climate change from these different vantage points, we begin to see that – depending on who one is and where one stands – the idea of climate change carries quite different meanings and seems to imply quite different courses of action. These differences of perspective are rooted much more deeply than (merely) in contrasting interpretations of the scientific narrative of climate change. Our discordant conversations about climate change reveal, at a deeper level, all that makes for diversity, creativity and conflict within the human story – our different attitudes to risk, technology and well-being; our different ethical, ideological and political beliefs; our different interpretations of the past and our competing visions of the future. This discord, in the context of climate change, has been described by the novelist Ian McEwan: 'Can we agree among ourselves? We are a clever but quarrelsome species – in our public discourses we can sound like a rookery in full throat.'[1] If we are to understand climate change and if we are to use climate change constructively in our politics, we must first hear and understand these discordant voices, these multifarious human beliefs, values, attitudes, aspirations and behaviours. And, especially, we must understand what climate change signifies for these important dimensions of human living and human character.

[1] p. 3 in British Council (2005) *Talking about climate change*. British Council: Manchester, UK.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

To illustrate what I mean, let me cite four contemporary and contrasting ways of narrating the significance of climate change – just some of the more salient discourses currently in circulation.

Climate change as a battleground between different philosophies and practices of science, between different ways of knowing. 'Climate change as scientific controversy' is a compelling discourse to which the media and other social actors are readily attracted. Although the controversy is allegedly about science, very often scientific disputes about climate change end up being used as a proxy for much deeper conflicts between alternative visions of the future and competing centres of authority in society.

Climate change as justification for the commodification of the atmosphere and, especially, for the commodification of the gas, carbon dioxide. In this frame, climate change is viewed as the latest rationale for converting a public commons into a privatised asset – in this case, the global atmosphere. 'Ownership rights' to emit carbon dioxide are allocated or auctioned between entities, alongside the attendant machinery of the market which prices and regulates the commodity.

Climate change as the inspiration for a global network of new, or reinvigorated, social movements. Seeing climate change as a manifestation of the nefarious practices of globalisation, this framing warrants the emergence of new forms of activism, both elite and popular, to challenge these practices and to catalyse change in political, social and economic behaviour.

Climate change as a threat to ethnic, national and global security. The rhetoric associated with this framing compares climate change (unfavourably) with the threats posed by international terrorism, warranting a new form of geo-diplomacy at the highest levels of government. This framing has been espoused especially by the UK Government in recent years, and led in April 2007 to the first debate about climate change to be held at the United Nations Security Council.

These examples of sites of scientific, economic, social and political conflict and innovation illustrate that the idea of climate change

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

possesses a certain plasticity – or at least that the idea of climate change has been constructed in such a way as to ensure that it possesses this quality of plasticity. Such an attribute allows climate change easily to be appropriated in support of a wide range of ideological projects. Climate change can be framed, can be moulded, in many different ways. Sometimes these frames complement each other, yet often they appear to conflict.

All of the above suggests that, far from starting with ignorance and ending with certainty, the story of climate change is much more interesting. It is a story about the meeting of Nature and Culture,[2] about how humans are central actors in both of these realms, and about how we are continually creating and re-creating both Nature and Culture. Climate change is not simply a 'fact' waiting to be discovered, proved or disproved using the tenets and methods of science. Neither is climate change a problem waiting for a solution, any more than the clashes of political ideologies or the disputes between religious beliefs are problems waiting to be solved.

The full story of climate change is the unfolding story of an idea and how this idea is changing the way we think, feel and act. Not only is climate change altering our physical world, but the idea of climate change is altering our social worlds. And this idea is reaching farther and farther across these social worlds.[3] Rather than asking 'How do we solve climate change?' we need to turn the question around and ask 'How does the idea of climate change alter the way we arrive at and achieve our personal aspirations and our collective social goals?' By understanding why we disagree about climate change we will also

[2] I adopt capitalisation for the nouns 'Nature' and 'Culture', here and elsewhere in the book, to signify that I am treating them as unique entities rather than as a class of entities. Although there are many cultures, the idea of Culture is singular. Similarly, while we may recognise many different natures around us, the constructed idea of Nature is singular.

[3] A poll of 22,000 citizens across twenty-one countries conducted for the BBC World Service in September 2007 revealed that nearly 80 per cent of those surveyed believe that human activities are a significant cause of climate change.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

better understand what it takes to live sustainably on a crowded finite planet inhabited by a 'quarrelsome species'.

The account of climate change that I present in this book emerges from my own encounter with climate change over the last thirty years. This encounter started while I was a university student, continued during my time as a post-doctoral researcher and, more recently, has persisted through my roles as a professor, research leader, educator and public speaker. To understand why and how I have written this book it is necessary to understand the different stages of this encounter. I briefly relate my evolving relationship with climate change through identifying six stages in my encounter. These personal and professional experiences have shaped the way I now view climate change. This journey is also worth relating because the period through which I have travelled – from the late 1970s to today – coincides with the transformation of climate change from an object of largely scientific professional interest into a topic of daily and worldwide popular discourse.

I first encountered climate change when I was a geography student in England in the late 1970s. The idea of climate change seemed to embody my twin enthusiasms for geography and history, and the first full-length book I read on the subject was Hubert Lamb's 1977 *Climate Change: Present, past and future*. This started me on the first stage of my journey, covering the period from 1978 to 1988; a stage which I describe as '*Youthful Idealism*'. My undergraduate geography degree at the University of Durham introduced me to the idea that climates change on human time-scales. I well remember being taught at that time about claims of an approaching and seemingly imminent Ice Age, which struck me then, as they still do today, as being far-fetched.

It was the subsequent opportunity to pursue a PhD at the University of Wales, researching recent rainfall changes in Sudan, which

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

convinced me that studying climate change could be a way of satisfying my humanitarian ideals, born out of my Christian beliefs.[4] In Sudan I witnessed, at first hand, the suffering and devastation caused by the Sahelian drought of the early 1980s, and came to believe that a better understanding of climate variability and change could help alleviate human suffering. Climate change also provided me with the gateway into my first professional appointment, as a lecturer in geography at the University of Salford in 1984. This was to be the stepping stone to me later securing a post-doctoral research position under the inspiring Professor Tom Wigley at the Climatic Research Unit in the School of Environmental Sciences at the University of East Anglia in Norwich, UK.

For my PhD, and then later at Norwich, I became immersed in studying climate change through the application of quantitative, especially statistical, methods. This was the second stage in my journey with climate change; a stage I describe as '*Quantitative Analysis*' (*c.* 1981–98). This period saw my major analytical contribution to the science of climate change. I worked with worldwide observational climate data to examine global and regional trends in precipitation and with the small, but growing, international network of climate modelling centres – especially the Hadley Centre in the UK – to evaluate the performance of a new generation of climate models. In this mode of working and publishing, I saw climate change as a physical phenomenon which could be revealed and defined by quantitative data and understood and predicted by models.

Embedded within this analytical period was another important stage in my journey, in which I came to see climate change in terms of '*Political Ideology*' (*c.* 1984–90). I came to view global climate change caused by greenhouse gas emissions as a manifestation of a free-market, consumption-driven, capitalist economy – an ideology to

[4] I have written elsewhere about this aspect of my story. See Hulme, M. (2009) A belief in climate. Chapter in Berry, S. (ed.), *Real scientists, real faith*. Lion Hudson: London.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

which I was opposed. I recollect now that this opposition was an explicit ideological frame I used when teaching my course on contemporary climate change to final-year undergraduate geography students at the University of Salford between 1985 and 1988. This way of relating to climate change was a formative influence on (or reflection of) my political thinking during the decade of Thatcherite conservatism in the UK. I subsequently joined the British Labour Party in 1990.

My intellectual and emotional relationship with climate change also shaped me in other ways. After climate change first burst into public consciousness during the 'greenhouse summer' of 1988, I began to examine my own contribution to the causes of climate change, marking the fourth stage of my journey – '*Lifestyle Choices*'. From 1988 onwards, I was motivated – and still am – to make personal commitments to reduce my carbon and ecological footprints; commitments which influenced my behaviour with regard to energy demand, house purchases and modes of transportation. For example, in 2000 I purchased one of the first-generation Toyota Prius hybrids as our family car. During this period, in addition to my professional speaking, I also started giving talks to local Christian and community groups about the causes and implications of climate change.

Through a series of research contracts with the European Union, the UK Government and other international funding organisations, a fifth stage in my journey with climate change opened up during the 1990s: a stage which I call '*Scenarios for Policy*' (*c.* 1993–2002). These contracts required me to lead the development of a series of climate change scenarios for the UK, for Europe, for the Intergovernmental Panel on Climate Change, and for other countries and regions in Africa and Asia. In particular, under contract to the UK Department of the Environment, I led the design and delivery of the national UK climate change scenarios in 1998 and again in 2002. These scenario activities drew upon my analytical expertise with observed data and my familiarity with climate models, and took my professional career in a direction closer to policy assessments and societal decision making.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

During the important international climate policy-shaping years of the late 1990s and early 2000s, I began to see climate change increasingly as an issue of public policy and strategic decision making and less as an object of detached quantitative scientific analysis.

The sixth, and last, stage in my journey started in 1999, when I was asked to lead a consortium of UK universities bidding for a new national climate change research centre; a centre which I subsequently named after the nineteenth-century Irish scientist John Tyndall. The Tyndall Centre was designed and operated as an interdisciplinary enterprise drawing upon the natural and social sciences, economics and engineering to undertake research into the ways in which societies around the world might respond to changing climate. I began to see the bigger picture of how climate change had been initially constructed as an environmental science 'problem', but how this idea of climate change was now increasingly interpreted and reinterpreted in different ways by different social actors.

I gave public talks about climate change to many of these different organisations and interest groups – local authorities, business associations, citizens' groups, government civil servants – and offered testimonies to parliamentary hearings. I gave talks and participated in workshops around the world, in countries such as the Cayman Islands, China, Cyprus, the Czech Republic, Germany, India, Latvia, Moldova, the USA and Zimbabwe. I began to see that climate change meant very different things to different people, depending on their political, social and cultural settings. As the public discourses surrounding climate change multiplied and diversified after 2005 in the UK and elsewhere – I believe that the British Government's conference on Avoiding Dangerous Climate Change held in Exeter in February 2005 was influential in this regard – I became dissatisfied with the earlier ways in which I had related to climate change. I became fascinated by the malleability of the idea of climate change as it came to be appropriated in support of so many different causes.

© Cambridge University Press www.cambridge.org

CAMBRIDGE

Cambridge University Press
978-0-521-72732-7 - Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity
Mike Hulme
Frontmatter
More information

This final stage of my journey – a stage I call '*Cultural Enlightenment*' – crystallised through studying for a part-time graduate diploma in history at my university. This introduced me to a new range of intellectual traditions: in environmental, imperial and Enlightenment history, in the history of science, and in the sociology of scientific knowledge. It is on the foundations of these historical readings and my insights gained through leading the Tyndall Centre over seven years, combined with the earlier stages of my research career stretching back to the early 1980s, that this book – *Why We Disagree About Climate Change* – is built.

Since I have narrated my personal journey with the idea of climate change, I should also state clearly my own position with regard to the phenomenon, in case I am misunderstood. I believe that the risks posed to people and places by the physical attributes of climate are tangible, are serious, and require constantly improving forms of human intervention and management. I believe that the physical functions of global climate and, consequently, the parameters of local weather are changing (largely) under the influence of the changing composition of the atmosphere caused by an array of human activities. And I believe that changes in climatic risks induced by such global climate change are also important and serious. We do well to minimise these risks by reducing the vulnerability of those exposed to them and by minimising further changes to the composition of the world's atmosphere. Yet I do not believe that the way we have framed these goals – most significantly through the UN Framework Convention on Climate Change and the Kyoto Protocol – is the only way of doing so. Nor do I believe it is necessarily the most appropriate way. I feel uncomfortable that climate change is widely reported through the language of catastrophe and imminent peril, as 'the greatest problem facing humanity', which seeks to trump all others. I believe that such reporting both detracts from what science is good at revealing to us and diminishes the many other ways of thinking, feeling and knowing about climate which are also essential elements in personal and collective decision making.

© Cambridge University Press www.cambridge.org