# Ethics, Environmental Justice and Climate Change

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**An Elgar Research Collection**
Cheltenham, UK • Northampton, MA, USA

Published by
Edward Elgar Publishing Limited
The Lypiatts
15 Lansdown Road
Cheltenham
Glos GL50 2JA
UK

Edward Elgar Publishing, Inc.
William Pratt House
9 Dewey Court
Northampton
Massachusetts 01060
USA

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

Library of Congress Control Number: 2015959661


ISBN 978 1 78347 713 5

Printed and bound in Great Britain by TJ International Ltd, Padstow

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# Acknowledgements

The editor and publishers wish to thank the authors and the following publishers who have kindly given permission for the use of copyright material.

Blackwell Publishing Ltd for articles: Henry Shue (1993), 'Subsistence Emissions and Luxury Emissions', *Law and Policy*, **15** (1), January, 39–59; Henry Shue (1999), 'Global Environment and International Inequality', *International Affairs*, **75** (3), July, 531–45; Robin Attfield (2009), 'Mediated Responsibilities, Global Warming, and the Scope of Ethics', *Journal of Social Philosophy*, **40** (2), Summer, 225–36; Mathias Frisch (2012), 'Climate Change Justice', *Philosophy and Public Affairs*, **40** (3), Summer, 225–53; Simon Caney (2014), 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens', *Journal of Political Philosophy*, **22** (2), 125–49.

Cambridge University Press for articles: John Barkdull and Paul G. Harris (1998), 'The Land Ethic: A New Philosophy for International Relations', *Ethics and International Affairs*, **12**, March, 159–77; Simon Caney (2005), 'Cosmopolitan Justice, Responsibility, and Global Climate Change', *Leiden Journal of International Law*, **18** (4), December, 747–75; Tim Hayward (2007), 'Human Rights Versus Emissions Rights: Climate Justice and the Equitable Distribution of Ecological Space', *Ethics and International Affairs*, **21** (4), Winter, 431–50; Sujatha Byravan and Sudhir Chella Rajan (2010), 'The Ethical Implications of Sea-Level Rise Due to Climate Change', *Ethics and International Affairs*, **24** (3), Fall, 239–60; Henry Shue (2011), 'Face Reality? After You!—A Call for Leadership on Climate Change', *Ethics and International Affairs*, **25** (1), Spring, 17–26; Steve Vanderheiden (2011), 'Globalizing Responsibility for Climate Change', *Ethics and International Affairs*, **25** (1), Spring, 65–84; David Schlosberg (2012), 'Climate Justice and Capabilities: A Framework for Adaptation Policy', *Ethics and International Affairs*, **26** (4), Winter, 445–61.

*Chicago Journal of International Law* for article: Dale Jamieson (2013), 'Climate Change, Consequentialism, and the Road Ahead', *Chicago Journal of International Law*, **13** (2), 439–68.

Christopher Brown for his own work: (2010), 'A Litigious Proposal: A Citizen's Duty to Challenge Climate Change, Lessons from Recent Federal Standing Analysis, and Possible State-Level Remedies Private Citizens Can Pursue', *Journal of Environmental Law and Litigation*, **25** (2), Fall, 385–457, Appendix.

Elsevier for article: Jouni Paavola and W. Neil Adger (2006), 'Fair Adaptation to Climate Change', *Ecological Economics*, **56** (4), April, 594–609.

# Ethics and Justice in Climate Change: An Introduction

*Paul G. Harris*

Climate change is the most profound challenge facing humanity. It has already started to affect communities and individuals, almost always in adverse ways and sometimes with extreme suffering and death. This has been manifested acutely in extreme weather events, but also chronically in prolonged droughts and associated adverse impacts on food production. The practical issues associated with climate change, for example those related to international negotiations and domestic economic and social policies, have been extensively addressed in scholarly literature. Much of that literature has informed real-world policymaking. But climate change is also a normative problem: it presents individuals, communities and businesses with challenges and choices that raise profound questions of what is right and wrong, good and bad, just and unjust. Scholars have debated these normative issues. Arguably, effective long-term policies on climate change will never be realized if these debates are not listened to and understood by policymakers, diplomats and other government officials, as well as by those influencing climate policies outside governments. Importantly, the lessons arising from these debates will have to be integrated into international agreements, national regulations, local policies and individual human behaviors.

Climate change also presents real challenges for the non-human world: just as people are affected by human-caused changes to the earth, so too are other animals, plants and indeed entire ecosystems. The global atmosphere is growing warmer as a consequence of pollution from greenhouse gases, notably carbon dioxide from the burning of fossil fuels, with impacts on environmental systems: the oceans are absorbing heat and becoming acidified from carbon pollution, threatening marine ecosystems; some regions are already experiencing dramatic changes, such as warming in the Arctic and other areas historically characterized by cold and ice. Climate change threatens millions, possibly billions of people with death (over the long term), but it also threatens the continued survival of billions of non-human individuals and many entire species – to say nothing of the interdependence among humans and the natural world. (This assumes that we can still think of a natural, non-human world in the contemporary Anthropocene – the epoch during which humans have become the largest force shaping Earth's ecosystems [see, Whitehead 2014; Hamilton et al. 2015].) These environmental changes present their own profound questions of what is right and wrong, good and bad, just and unjust.

Given their vital importance for the future of climate change and related questions of ethics and justice, this volume brings together a selection of journal articles that highlight key issues, with emphasis on human-oriented research (in large part because that is what scholars have chosen to study, for obvious reasons). As with other Edward Elgar research collections, this

one is designed to help readers quickly and easily access an extensive body of English-language journal articles. The collection of articles here is not exhaustive, and it does not include all of the most important works. However, it does include a large sample of work on the ethics and justice of climate change, including that by the most prolific scholars. As such, the volume captures most of the major debates and issues in this growing scholarly field. This short introduction highlights these considerations, points to other key sources (especially journals and books), and very briefly summarizes the ideas that are elaborated in the articles that follow.

## The Ethics and Justice of Climate Change: From the Practical to the Ethical

Climate change is both a practical and an ethical problem. Practical issues receive much of the consideration of scientists, policymakers and indeed citizens, with our attention often directed toward things such as the concrete causes of climate change (for example, types and amounts of energy consumed), its consequences (for example, sea-level rise, increasingly severe storms, droughts and the like), related technical responses (for example, energy-saving technologies and alternative energy) and policy issues (for example, energy taxes and environmental regulations). Less often, questions of ethics and justice related to climate change come into the foreground: Is it morally wrong to pollute the global environment? If so, what is the philosophical or ethical basis for saying so? Is it fair that those individuals and communities least responsible for climate change – the world's poor – are most adversely affected by it? What kinds of duties and responsibilities arise for nation-states, businesses and individuals, notably those who are most affluent? Should future generations, and indeed non-humans, be given consideration when answering these and related questions? If so, which moral theories or philosophies should serve as our guides?

Importantly, the practical and ethical aspects of climate change are very often directly connected. For example, if affluent communities and individuals believe that they are ethically entitled to pollute the environment (as they seem to be, at least if we deem our past and present behavior to be ethical), or they feel that they have no obligation not to do so, least of all to compensate those affected (communities, individuals, ecosystems, animals), they are unlikely to support, less so push for, government policies and regulations that will mitigate the causes of climate change – that is, reduce greenhouse gas pollution and behaviors causing it – or to help those who are affected by climate change to cope and adapt.

The connection between the practical and the ethical – what *is* done relative to what *should* be done – has been repeatedly manifested in the international negotiations on climate change. For decades now, representatives of developing and poor countries have argued that they ought not be obligated to limit their climate-changing pollution, which often means burning much less cheap coal, until developed and wealthy countries first stop *their* pollution of the atmosphere *and* compensate the poorer countries for the consequential suffering they will experience and indeed seem to be experiencing already. For the poor, climate change, and how the world responds to it, is very much a question of *justice*: those who cause the problem should stop doing so (arguably one of the most basic principles of justice) and they should make amends for their actions. Not surprisingly, while many developed countries have shown rhetorical sympathy for these ethical arguments – it is hard to see how they could do otherwise



– relative to the scale of the problem they have collectively done very little to act on such rhetoric. Meanwhile, some formerly poor countries are joining the ranks of developed societies, with millions of people adding to the global consuming and polluting classes. These new consumers have a sense of entitlement – 'if you got rich polluting the earth, we should be able to do so, too' – that is based on an understandable sense of (in)justice. However, the practical consequences of implementing this conception of justice would be every bit as bad for the environment as is people and countries of the historically affluent world continuing to pollute as they have done for a century and more.

Ethical considerations are often matters of perception. What one person or community perceives to be fair, or normal or possibly not even worthy of ethical consideration, may be seen to be unfair by another person or community. This raises the question of where ethics and morals, and where understandings of what is right and just, come from. In short, what are the bases of ethical judgment about climate change, and how can and ought these inform policies of governments and the actions of individuals and other actors? Can different perceptions of ethics and justice related to climate change be reconciled? Until the practical causes and consequences of climate change are squared with these and other normative considerations – squaring what is right and wrong, just and unjust, with past, present and especially future behavior – the world's responses to climate change will almost certainly continue to be too little, too late. Put succinctly, effective long-term solutions to climate change will not be found or implemented if they are not ethical and just – and perceived to be so.

## Understanding Climate Ethics and Justice: Literary Resources

The amount of scholarly literature on climate change is now absolutely enormous. It is hard to imagine any single person being able to read it all, let alone comprehend it all. For better or worse, the extant literature on questions of ethics and justice related to climate change is much more manageable. Such literature is almost entirely of recent vintage, and only in the last two decades has it started to flourish. This recent blooming of scholarship makes perfect sense: it was only after scientists made us aware of climate change, and began to describe its causes and consequences, that philosophers and ethicists (and others interested in climate ethics, such as economists and political scientists) could realize the importance of this issue. The scientific literature, most prominently the assessment reports of the Intergovernmental Panel on Climate Change (most recently Intergovernmental Panel on Climate Change 2014), has served as the basis for what is now a substantial body of scholarly work, found in books, journals and across the Internet, which can and arguably does inform climate policies.

This volume brings together a substantial sample of *journal articles* from this larger body of scholarly literature. In doing so, it directs attention to a number of journals that have dedicated many pages to the topics of (and related to) climate ethics and justice. These journals include, but are definitely not limited to, *Climate Policy*; *Climatic Change*; the *Critical Review of International Social and Political Philosophy*; *Environmental Politics*; *Environmental Values*; *Ethics*; *Ethics and International Affairs*; *Ethics, Policy and Environment* (formerly *Ethics, Place and Environment*); *Globalization*; *International Affairs*; the *Journal of Global Ethics*; the *Journal of Political Philosophy*; the *Journal of Social Philosophy*; *Nature Climate Change*; *Philosophy and Public Affairs*; *Science*; *Science and Engineering Ethics*; and

*Science, Technology and Human Values*. (The choice of articles that follows was partly dictated by reprint costs, page limitations and the like, and is therefore restricted. Readers interested in conducting more in-depth study or research are strongly encouraged to consult these journals for more articles.) Many other journals have addressed these issues, albeit usually less frequently. A number of law journals, particularly in Europe and the United States, have been on the forefront of highlighting the connections between climate change and not only legal justice but also social and distributive justice.

In addition to journal articles, scholarly research on climate change ethics and justice has been published as chapters in edited books. Many of these chapters are included in (but unfortunately sometimes quite difficult for researchers to find in) edited books on more general topics, such as environmental ethics, political science, international relations and even atmospheric science. Significantly, researchers now have access to a number of edited volumes devoted largely or even exclusively to questions of climate ethics and justice. Among these are: Adger et al. 2006, Arnold 2011, Di Paola and Pellegrino 2014, Gardiner et al. 2010, Harris 2011a, Harris 2011b, Maltais and McKinnon 2015, Moss 2015, Nanda 2011, O'Brien et al. 2014, Peeters et al. 2015, Pinguelli-Rosa and Munasinghe 2002, Thompson and Bendik-Keymer 2012, Toth 1999 and Vanderheiden 2008b.

Adding to the shorter treatments of climate change ethics and justice found in scholarly journals and book chapters, researchers now have a substantial choice of mostly recently authored books focused exclusively, or nearly so, on this topic – which, in its own way, is a demonstration of the new importance ascribed to climate ethics and justice, at least by many scholars. Among these books are: Broom 2012, Brown 2012, Cripps 2013, Gardiner 2011, Garvey 2008, Harris 2010, Harris 2016, Henning 2015, Jamieson 2014, Kronlid 2014, Lawrence 2014, McKinnon 2011, Moellendorf 2011, Northcott 2007, Page 2007, Posner and Weisbach 2010, Shue 2014, Skrimshire 2010, Thorp 2014, Tokar 2014, Tremmel and Robinson 2014 and Vanderheiden 2008a. Articles by some of the authors of these books are reprinted in this volume.

Books, articles and papers dedicated to understanding climate ethics and/or justice build upon a well-established foundation of scholarly literature on environmental ethics and philosophy, including that on human–environment relationships, animal rights, land ethics, ecological justice and the like. Recent synopses and overviews of this work, which often come in the form of books designed for use in university courses and thus are good starting points for research on related questions of climate change, include: Attfield 2014, Attfield 2015, Boylan 2014, Curry 2011, James 2015, Jamieson 2003, Jamieson 2008, Keller 2010, Light and Rolston 2002 and Schlosberg 2009.

Despite being a 'moving target' for researchers – web pages, and indeed entire websites, come and go with regularity – the Internet's World Wide Web (WWW) has rapidly taken on prominence as a very important resource for researchers. It is now a depository for official government documents that relate, often directly, to climate change ethics and justice. Many journal articles on the topic can be obtained via the WWW (albeit usually requiring payment), and it is common for future journal articles to be placed on the WWW as drafts and conference papers (often freely downloadable). Perhaps even more significantly, the WWW is valuable as a source for research reports and papers, whether from university scholars or nongovernmental organizations (for example, interest groups, advocacy organizations, think tanks). Sometimes these documents are found on websites that are entirely dedicated to the ethics and/or justice of climate change. Readers are encouraged to use WWW search engines (for example, Bing, Google, Yahoo, bearing in mind that their results are often commercially oriented), to find up-to-date websites, pages and even videos related to climate ethics and justice.



## Key Topics and Themes

The articles that follow address key questions of climate change ethics and justice. (Like other Edward Elgar research collections, this one focuses on journal articles. As such, book chapters are not included in this volume. Readers are encouraged to refer to the edited books mentioned above.) To help direct readers to some of the larger debates, the articles are organized into eight themed sections. Within each section, articles are organized by year of publication. The selection is decidedly contemporary, with the majority of articles having been written since the year 2000 and the remainder since 1990. The headings and themes that are used here to categorize the articles are by no means exclusive, nor is this categorization the only or necessarily the ideal way to organize the material. (The books mentioned above offer alternative approaches that readers are encouraged to consult.) Due to the overlapping nature of the scholarly debates – something that researchers must contend with – many of the articles would fit very well into sections other than those in which they are placed. Readers who do not see the topic they are looking for in the section headings are encouraged to read through the article titles and indeed to dig into the articles themselves. There is far more here than can be revealed in the title of the volume or in the section headings. Now to the key topics and themes.

### *Ethics, the Environment and Climate Change*

Part I includes six articles on ethics, the environment and climate change. This section of the volume is intended to provide a framework for the subject matter and to make it clear that questions of ethics and justice related to climate change exist within the broader contexts of ethics and the environment per se. In Chapter 1, John Barkdull and Paul G. Harris look at some of the implications of the 'land ethic', an approach that was developed by the environmental philosopher Aldo Leopold. From this perspective, which values whole ecosystems in their own right, human behaviors at all levels, including at the level of international relations, ought to be guided by principles of widespread environmental protection – not just of particular species or resources, but of the natural environment in its broadest sense. In Chapter 2, Sverker C. Jagers and Göran Duus-Otterström develop the notion of 'dual climate change responsibility', drawing moral distinctions between, on the one hand, mitigation of climate change and, on the other, adaptation to it. They argue that the manner in which responsibilities are assigned depends very much on whether we are talking about mitigation or adaptation, something that theorists ought to bear in mind. In Chapter 3, Jonathan Aldred uses an influential report on the economics of climate change as a basis for critiquing the way that scholars (and others) go about conducting cost–benefit analysis in the context of climate change. In doing so, he highlights tensions that exist between the supposed objectivity of cost–benefit analysis, with its focus on market preferences, and more nuanced ethical arguments.

The ethical implications of one of the major impacts of climate change, sea-level rise, are explored in Chapter 4. Sujatha Byravan and Sudhir Chella Rajan consider whether there are ethical obligations owed to those who suffer from rising seas, and if so what it would mean to act on those obligations. In Chapter 5, Paul G. Harris takes a geographical perspective in arguing that many discussions of climate ethics have been misplaced. He shows that climate ethics cannot be fully understood if it is portrayed in terms of nations and states. More appropriately, he says, we should be thinking in terms of individual rights and obligations, regardless of nationality (a topic examined in detail in Part V of this volume). Dale Jamieson is one of the most prolific theorists of climate ethics and justice. In Chapter 6, the final chapter of this section, he looks at some of the complex relationships between climate change, responsibility and justice. In particular, he argues that the threat of climate change to the value of 'respect for nature' means that it presents problems for traditional portrayals of moral responsibility and indeed global justice. The latter receives more sustained attention in the articles that follow in Part II.

*Synopses of Climate Justice*

Part II presents five synopses that highlight the tight connections between climate ethics (and philosophy) and climate justice. It serves as a foundation for understanding more focused analyses in this issue area. Chapter 7, by Stephen M. Gardiner, gives us an extended survey of ethical questions related to climate change. Before summarizing much of the related literature, he argues that climate change is, fundamentally, an ethical issue that should concern both moral philosophers and ordinary individuals. In Chapter 8, Ludvig Beckman and Edward A. Page present an introduction (as part of a special issue of the *Environmental Politics* journal) to interrelated questions of climate justice and democracy. They highlight four themes, namely the content and scope of justice in the context of climate change, democracy from global and intergenerational perspectives (the latter the focus of articles in Part III of this volume), the implications of poverty and posterity for climate justice, and the ramifications of climate justice for science and society. Simon Caney, one of the most prolific philosophers of climate justice, theorizes about the distribution of greenhouse gas emissions in Chapter 9. He critiques some of the more common ways by which philosophers approach questions of distributive justice in this subject area, in the process arguing that 'statist' approaches can divert attention away from some of the most morally significant considerations (something addressed at length in Part V of this volume).

In Chapter 10, Mathias Frisch surveys the field of climate justice while making specific arguments about what it means for international agreements and policies. He points out the difficulties posed by the global and intergenerational attributes of climate change, noting the resulting implications for distributive justice, corrective justice, cost–benefit analysis and, importantly, action to do something about the problem. In Chapter 11, Simon Caney explicates two kinds of justice related to climate change, specifically what he calls 'burden-sharing justice' and 'harm-avoidance justice'. He shows that the former has received most of the attention in debates about climate change, but he argues that the latter ought to receive much more attention than it has been given to date. Doing this would have significant implications, not least by directing more attention toward moral obligations associated with helping people



adapt to the inevitable impacts of climate change (which receives more attention in Parts VI and VII of this volume).

*Intergenerational Justice*

Part III briefly addresses a theme that dominated the climate change debate in previous decades and remains highly germane to this day: intergenerational justice. It highlights issues such as the determination of historical responsibility and whether (and how) future generations can (and should) be represented. In Chapter 12, Lawrence E. Johnson argues that future generations' moral significance must be accounted for, but not on the basis of an individualist, 'person-affecting' ethic. Instead, he makes the case for an alternative ethic, one that is based on obligations to humanity as a whole. In Chapter 13, Stephen M. Gardiner introduces many of the themes that animate his book on climate ethics and justice, *A Perfect Moral Storm* (Gardiner 2011). Like most other contributors to this volume, he makes the case that questions of ethics are absolutely fundamental to the formulation of policies for addressing climate change. However, realizing such policies is complicated by the moral 'storm' to which the title of his book refers. That storm, created by a convergence of theoretical, intergenerational and global problems, effectively 'corrupts' the ability of policymakers to take effective action.

To end this section of the volume, in Chapter 14 Robin Attfield explores the scope of ethics in the context of climate change. He points out that many of our responsibilities with respect to climate change are 'mediated' because there is a lag, which might be decades or even centuries, in the time between any action we might take and its effect. One consequence is that such mediated responsibilities, both causal and moral ones, tend to be discounted in value: we are more likely to overlook the impacts of what we do if those impacts are far away temporally. Attfield begins the work of remedying this perverse discounting of the future, raising important points for evaluating (and acting upon) responsibility and for making (and acting upon) political decisions related to climate change.

*Equity and Justice among States*

Part IV comprises six articles on equity and justice among nation-states. This has understandably been a key theme – arguably *the* key theme – in international negotiations on how governments and the global community should address the causes and consequences of climate change. This section of the volume includes two articles by Henry Shue, arguably one of most influential scholars of climate ethics and justice (if not *the* most influential). Chapter 15 reproduces Shue's seminal essay from *Law and Policy* journal on 'subsistence emissions' and 'luxury emissions'. He asks four questions: What is the fairest way to allocate the costs of preventing avoidable climate change? What is the fairest way to allocate the costs of coping with unavoidable climate change? What 'background allocation of wealth' would enable a fair process of answering these questions? And what is the fairest way to allocate future greenhouse gas emissions? As one might expect, especially if one is familiar with the arguments in his book, *Basic Rights* (Shue 1980), when answering these questions Shue weighs in favor of subsistence emissions. Implicit in Shue's argument is that some actors are more responsible than others. This differentiation is central to the concept of 'common but differentiated

responsibility', the subject of Chapter 16 by Paul G. Harris. According to this concept, which has become vital to international negotiations on climate change, all countries have responsibilities to address climate change, but the affluent among them have much more of it because they have had a bigger role in causing climate change, because their relative wealth makes it easier for them to do something about it, and because the poor usually have more pressing issues to contend with, namely meeting urgent basic needs. Harris defines common but differentiated responsibility and shows how it has been invoked during the process of formulating climate-related policies in the United States.

Chapter 17, again by Henry Shue, focuses on questions of the inequalities that arise when addressing global environmental problems like climate change. For example, he argues that those actors (such as developing countries) that have been disadvantaged by others without giving consent have a right to demand that those actors causing this disadvantage (such as developed countries) shoulder the resulting burdens. As Steve Vanderheiden shows in Chapter 18, sometimes the governments of countries causing such harm in the context of climate change avoid accepting their responsibilities by claiming that there is too little knowledge about the problem or too much uncertainty about the potential impacts. Vanderheiden shows that such claims cannot be justified; there is ample knowledge, and uncertainty is no excuse for continuing to commit offending acts, including emitting unnecessary greenhouse gas pollution. In Chapter 19, Jouni Paavola looks at social justice in international environmental governance, focusing his attention on adaptation to climate change. He shows how social justice has been invoked in climate change negotiations, specifically from the perspective of distributive justice, for example by vulnerable developing countries impacted by climate change, and from the procedural perspective, such as the inability of weak developing-country governments and local communities to participate fully and influentially in deciding how to respond to climate change internationally. He argues in favor of a tax on carbon, with resulting funds being used to compensate those harmed by climate change.

In contrast, in Chapter 20 Eric A. Posner and Cass R. Sunstein refute arguments for international distributive and corrective justice, arguing that they do not provide a strong basis for demanding that special obligations for reducing greenhouse gas emissions be imposed on the United States. They believe that the United States, which until a decade ago was the largest national source of global greenhouse gas pollution (overtaken by China), should not be required to redistribute wealth to poor countries because doing so would be inefficient and because many individuals (that is, Americans) who have not acted wrongfully might be required to pay for transfers of wealth to individuals who are not actually victims.

*Cosmopolitanism*

The bulk of writing on climate justice has been about the obligations and entitlements of nation-states. A growing body of literature critiques this 'statist' approach. Some of this literature is found in Part V, which is dedicated to cosmopolitan theories and arguments. Cosmopolitan approaches highlight the implications for climate change of considering *individuals'* needs and entitlements, on the one hand, and their potential obligations, on the other. From this perspective, a person's membership in a political community (such as citizenship of a state) does not alter his or her moral obligations. In Chapter 21, Simon Caney develops the climate-related theory of cosmopolitan justice and responsibility. He



argues that the polluter-pays principle – the notion that those who pollute are responsible for paying to clean it up or, preferably, paying the costs of not polluting in the first place – is appealing but insufficient for determining who is responsible for bearing the burdens of climate change. He develops a person-centered, hybrid moral theory that overcomes weakness in the polluter-pays principle. In Chapter 22, Axel Gosseries advances cosmopolitanism and 'luck egalitarianism' – whether a person's suffering is a result of his or her circumstances or personal choices – as principles of justice that should guide the global climate change regime. He argues that the fair allocation of greenhouse gas emissions, the manner by which associated burdens should be distributed, and whether the trading of emissions quotas should be dramatically reevaluated, should be assessed in the light of cosmopolitan luck egalitarianism.

In Chapter 23, Paul G. Harris draws on cosmopolitan thinking to propose a 'cure' for what he calls the 'impotence' of international approaches to addressing climate change. He argues that interstate approaches have diverted attention away from the roles of individuals, most importantly the many millions of affluent people in developing countries who are able to avoid practical responsibility for climate change by hiding behind their nations' relative lack of responsibility vis-à-vis other states. The 'cure' is found in locating more obligation to act on climate change, and to aid those who suffer from its consequences, in capable persons regardless of their nationality or where they live. Aaron Maltais expands on the ways in which cosmopolitanism can inform our understanding of climate change. In Chapter 24 he develops a cosmopolitan political conception of justice and makes the case for a 'global political project' to address the problem, in the process directly addressing some of the challenges to cosmopolitanism from climate change. Finally, in Chapter 25 Paul G. Harris and Jonathan Symons focus on what cosmopolitanism might say, in practical terms, for determining how to justly adapt to the impacts of climate change. They argue that assistance for adaptation should focus on promoting human welfare (instead of compensating states), with financial resources for doing so coming from policy measures that charge affluent people, whether they be in developed or developing countries, for their greenhouse gas emissions.

*Human Rights*

To say that climate change has implications for human beings is an understatement. Put simply, climate change will contribute to enormous human suffering and death. These implications, and specifically the rights, needs and entitlements of human beings, are emphasized in Part VI. In Chapter 26, Tim Hayward contrasts emissions rights and human rights, arguing for achieving climate justice through an equitable distribution of ecological space. He shows how norms of human rights can be used to determine the just distribution of greenhouse gas emissions. Surprisingly, he argues that doing so is more pertinent to international than domestic justice in this context, concluding that there is no human right to pollute. Instead, there is a human right to a clean environment, and thus the means to live a decent life. In Chapter 27, Derek Bell asks whether climate change violates human rights. He answers in the affirmative, showing how climate change violates fundamental rights to health, physical security, subsistence and life. He addresses a number of common objections from philosophers and points to duties that arise from a basic-rights argument, especially for the more powerful and affluent individuals of today.

Many of the impacts of climate change, such as sea-level rise and desertification, as well as local conflicts arising from increasingly scarce resources, will force potentially millions of people to migrate – to become 'climate refugees'. In Chapter 28, Avner de Shalit looks at what this means as we think about associated questions of compensation and rectification. He argues that displacement caused by climate change is an environmental injustice, especially so when people lose their home territories and are forced to become refugees due to chronic environmental impacts. Given that it may never be possible to rectify this injustice, Shalit makes the case that justice demands that the world do as much as possible to prevent it from happening.

*Duties and Responsibilities of Individuals*

People certainly have rights that are associated with climate change. It can therefore be argued that they also have responsibilities. These are the focus of Part VII, which comprises five articles. In Chapter 29, Christopher Brown looks at whether individual citizens (in the United States) have duties to 'challenge' climate change and, if so, how they might act on such duties. Brown takes a legal perspective to illustrate how climate change presents ordinary citizens with moral choices that differ from those faced by other actors, such as politicians. Because climate change is a crisis, the duty to take action is high, but this duty is not restricted to limiting one's greenhouse gas pollution. It extends to actions not often contemplated in the literature, notably litigation. In Chapter 30, Marion Hourdequin argues that individuals have obligations to reduce their greenhouse gas emissions. This is justified based on two rationales: moral integrity and a relational conception of personhood. Because individuals are not atomistic, instead being part of a community – that is, living in relation to others – behaviors that harm (or might harm) others create individual duties. This idea that climate change creates responsibilities for individuals is explored further in Chapter 31, written by Avram Hiller. Hiller rejects the common misconception that individual behaviors, because they individually make little contribution to climate change (or indeed to other large phenomena), do not create responsibilities for individuals. He explores why this misconception is so common and poses a simple question: if individual actions are not the cause of climate change, what is?

One reason that capable individuals act too rarely on obligations associated with climate change is because it does not present a very big problem for them individually. Those causing the most harm are often those most capable of coping. In Chapter 32, Catriona McKinnon addresses this 'motivation problem'. She argues for individuals to be good members of an 'intergenerational cooperative union' that effectively leads to greater climate justice. Importantly, those who are doing the most harm are also those who are able to do the most without suffering significant hardship, and indeed individual action would be easy (such as ceasing to go on holiday by air). Building on these and similar cosmopolitan conceptions of climate justice, in Chapter 33 Steve Vanderheiden makes the case for globalizing responsibility for climate change. He argues that mitigation and adaptation can be brought within a single conception of justice, linked by an account of responsibility that transcends corrective justice and distributive justice. According to Vanderheiden, justice at least requires that individuals (and communities) accept (or be forced to accept) responsibility for the climate change for which they are culpable.



*Ethics, Justice and Climate Policy*

Finally, Part VIII comprises eight chapters that give us insights into the policy implications of climate ethics and justice at different levels of analysis – individual, sub-national, national, international and global. As such, these chapters make vital connections between the practical and ethical aspects of climate change. Chapter 34 reprints one of Dale Jamieson's early articles on the ethical and policy implications of climate change. In it he contends that climate change is not just a scientific issue, nor is it only one of politics; it is also a moral problem that requires unconventional ethical reasoning. At the very least, today's highly polluting lifestyles should be replaced by simpler ones and accompanied by greater humility about our individual and collective environmental impacts. In Chapter 35, also by Dale Jamieson, the ethics of 'intentional climate change' – geoengineering – is explored. Jamieson proposes a set of conditions that would have to be satisfied before intentional manipulation of Earth's climate could be morally permissible. Importantly, he argues that such conditions have not yet been met, although continued research on geoengineering may be justifiable. In Chapter 36, Jouni Paavola and W. Neil Adger look at questions of adaptation to climate change. They identify a number of 'justice dilemmas' that arise in making adaptation policies, notably responsibility for impacts, sharing the burdens of adaptation, distribution of financial assistance and fair participation in decision-making. According to Madeleine Heyward, equity in the international climate change negotiations is a matter of perspective. In Chapter 37 she presents a framework of equity principles that have arisen, revealing how contentious the different perspectives have become, thereby challenging international policymaking. As Heyward reveals, how the burdens of climate change are distributed matters greatly for climate policy, but how that distribution of burdens is perceived by different actors may matter at least as much.

In Chapter 38, Edward A. Page identifies the agents that should bear the burden of paying for mitigating climate change. He argues that it is necessary to reconcile three approaches to burden sharing – contribution to causing climate change, ability to pay for the mitigation of it, and whether (and how much) an actor benefits – to arrive at practical solutions. In Chapter 39, Henry Shue makes a call for leadership to bring about vigorous and urgent action on climate change. One of the ways that he justifies urgent action today is by invoking the Good Samaritan. The current generation is the one that is here to take action to address an urgent problem, one that will only grow worse if we fail to act, so its capable members must act. The responsibility to act is greatest among those most capable of doing so. In Chapter 40, David Schlosberg develops a capabilities-based approach to just adaptation policy. He shows how such an approach can bridge a gap between abstract conceptions of climate justice and real-world policymaking. Finally, in Chapter 41, Dale Jamieson looks at the road ahead for the world's responses to climate change. He describes past and ongoing failures, critiques some prevailing ethical arguments and makes a case for domestic action even as international negotiations continue. As he notes, however, we all must learn to live with climate change. Whatever solutions might be found, climate change is here to stay – as are the perennial questions about climate ethics and justice.

## Conclusion

Researching climate ethics and justice is not an esoteric undertaking exclusive to philosophers. It is an inescapable and vital part of the real-world climate change puzzle. This is because what is right and wrong, good and bad – that is, what is *ethical* (some may prefer to say moral) or not – and what is fair and equitable or unfair and inequitable – that is, in simple terms, what is *just* or not – has been and will always be central to explaining the causes of climate change, deciding how to cope with its consequences and choosing the best ways to mitigate it in the future. Furthermore, what is ethical or just (or not) is both a matter of logic and reasoning, which philosophers and ethicists can help us with, and one of perception, which involves understanding a variety of goods and bads and different kinds of justice and injustice. As such, it is hoped that the articles in this volume help to bridge the gap between philosophical reasoning and perception, which is much of what happens in the academy and in journal articles, and formulating practical ethical arguments and guidelines that can shape policy at all levels, from the individual all the way up to the global community.

It is not hyperbole to say that one cannot think about climate change, least of all act upon it effectively, without considering ethics and justice in their many manifestations. As the earth's climate changes, as the pollution that causes climate change increases and as the impacts of climate change become more manifest and more painful, questions of ethics and justice will increase in importance. With each passing year, the practical and the ethical will become more and more intertwined.

## References


Adger, W. Neil, Jouni Paavola, Saleemul Huq and M.J. Mace (eds) (2006), *Fairness in Adaptation to Climate Change*, Cambridge, MA: MIT Press.

Arnold, Denis G. (ed.) (2011), *The Ethics of Global Climate Change*, Cambridge: Cambridge University Press.

Attfield, Robin (2014), *Environmental Ethics: An Overview for the Twenty-first Century*, Cambridge: Polity.

Attfield, Robin (2015), *The Ethics of the Global Environment*, Edinburgh: Edinburgh University Press.

Boylan, Michael (ed.) (2014), *Environmental Ethics*, Oxford: Wiley-Blackwell.

Broom, John (2012), *Climate Matters: Ethics in a Warming World*, London: W.W. Norton.

Brown, Donald A. (2012), *Climate Change Ethics: Navigating the Perfect Moral Storm*, London: Routledge.

Cripps, Elizabeth (2013), *Climate Change and the Moral Agent: Individual Duties in an Interdependent World*, Oxford: Oxford University Press.

Curry, Patrick (2011), *Ecological Ethics: An Introduction*, Cambridge: Polity.

Di Paola, Marcello and Gianfranco Pellegrino (eds) (2014), *Canned Heat: Ethics and Politics of Global Climate Change*, London: Routledge.

Gardiner, Stephen, Simon Caney, Dale Jamieson and Henry Shue (eds) (2010), *Climate Ethics: Essential Readings*, Cambridge: Cambridge University Press.

Gardiner, Stephen (2011), *A Perfect Moral Storm: The Ethical Tragedy of Climate Change*, Oxford: Oxford University Press.

Garvey, James (2008), *The Ethics of Climate Change: Right and Wrong in a Warming World*, London: Continuum.

Hamilton, Clive, Christophe Bonneuil and Francois Gemenne (eds) (2015), *The Anthropocene and the Global Environmental Crisis: Rethinking Modernity in a New Epoch*, Abingdon: Routledge.





Harris, Paul G. (2010), *World Ethics and Climate Change: From International to Global Justice*, Edinburgh: Edinburgh University Press.

Harris, Paul G. (ed.) (2011a), *China's Responsibility for Climate Change: Ethics, Fairness and Environmental Policy*, Bristol: Policy Press.

Harris, Paul G. (ed.) (2011b), *Ethics and Global Environmental Policy: Cosmopolitan Conceptions of Climate Change*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.

Harris, Paul G. (2016), *Global Ethics and Climate Change*, Edinburgh: Edinburgh University Press.

Henning, Brian G. (2015), *Riders in the Storm: Ethics in the Age of Climate Change*, Winona, MN: Anselm Academic.

Intergovernmental Panel on Climate Change (2014), *Climate Change 2013: The Physical Scientific Basis*, Cambridge: Cambridge University Press.

James, Simon (2015), *Environmental Philosophy: An Introduction*, Cambridge: Polity.

Jamieson, Dale (ed.) (2003), *Companion to Environmental Philosophy*, Oxford: Blackwell.

Jamieson, Dale (2008), *Ethics and the Environment: An Introduction*, Cambridge: Cambridge University Press.

Jamieson, Dale (2014), *Reason in a Dark Time: Why the Struggle Against Climate Change Failed – and What It Means for Our Future*, Oxford: Oxford University Press.

Keller, David R. (ed.) (2010), *Environmental Ethics: The Big Questions*, Oxford: Wiley-Blackwell.

Kronlid, David O. (2014), *Climate Change Adaptation and Human Capabilities: Justice and Ethics in Research and Policy*, Houndmills: Palgrave Macmillan.

Lawrence, Peter (2014), *Justice for Future Generations: Climate Change and International Law*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.

Light, Andrew and Holmes Rolston (eds) (2002), *Environmental Ethics: An Anthology*, Oxford: Blackwell.

Maltais, Aaron and Catriona McKinnon (eds) (2015), *The Ethics of Climate Governance*, Lanham, MD: Rowman and Littlefield.

McKinnon, Catriona (2011), *Climate Change and Future Justice: Precaution, Compensation and Triage*, London: Routledge.

Moellendorf, Darrel (2011), *The Moral Challenge of Dangerous Climate Change: Values, Poverty and Policy*, New York: Cambridge University Press.

Moss, Jeremy (ed.) (2015), *Climate Change and Justice*, Cambridge: Cambridge University Press.

Nanda, Ved P. (ed.) (2011), *Climate Change and Environmental Ethics*, Piscataway, NJ: Transaction.

Northcott, Michael S. (2007), *A Moral Climate: The Ethics of Global Warming*, Maryknoll, NY: Orbis.

O'Brien, Karen, Asuncion Lera St. Clair and Berit Kristofferson (eds) (2014), *Climate Change, Ethics and Human Security*, Cambridge: Cambridge University Press.

Page, Edward (2007), *Climate Change, Justice and Future Generations*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.

Peeters, Wouter, Andries DeSmit, Lisa Diependaele and Sigrid Sterckx (eds) (2015), *Climate Change and Individual Responsibility: Agency, Moral Disengagement and the Motivational Gap*, Houndmills: Palgrave.

Pinguelli-Rosa, Luiz and Mohan Munasinghe (eds) (2002), *Ethics, Equity and International Negotiations on Climate Change*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.

Posner, Eric A. and David Weisbach (2010), *Climate Change Justice*, Princeton, NJ: Princeton University Press.

Schlosberg, David (2009), *Defining Environmental Justice: Theories, Movements and Nature*, Oxford: Oxford University Press.

Shue, Henry (1980), *Basic Rights: Subsistence, Affluence and U.S. Foreign Policy*, Princeton, NJ: Princeton University Press.

Shue, Henry (2014), *Climate Justice: Vulnerability and Protection*, Oxford: Oxford University Press.

Skrimshire, Stefan (2010), *Future Ethics: Climate Change and Apocalyptic Imagination*, London: Bloomsbury.

Thompson, Allen and Jeremy Bendik-Keymer (eds) (2012), *Ethical Adaptation to Climate Change: Human Virtues of the Future*, Cambridge, MA: MIT Press.

Thorp, Teresa (2014), *Climate Justice: A Voice for the Future*, Basingstoke: Palgrave Macmillan.

Tokar, Brian (2014), *Toward Climate Justice: Perspectives on the Climate Crisis and Social Change*, Porsgrunn, Norway: New Compass Press.
Toth, Ferenc L. (ed.) (1999), *Fair Weather? Equity Concerns in Climate Change*, London: Earthscan.
Tremmel, Joerg and Katherine Robinson (2014), *Climate Ethics: Environmental Justice and Climate Change*, London: I.B. Tauris.
Vanderheiden, Steve (2008a), *Atmospheric Justice: A Political Theory of Climate Change*, Oxford: Oxford University Press.
Vanderheiden, Steve (ed.) (2008b), *Political Theory and Global Climate Change*, Cambridge, MA: MIT Press.
Whitehead, Mark (2014), *Environmental Transformations: A Geography of the Anthropocene*, Abingdon: Routledge.

# Part I
# Ethics, the Environment and Climate Change