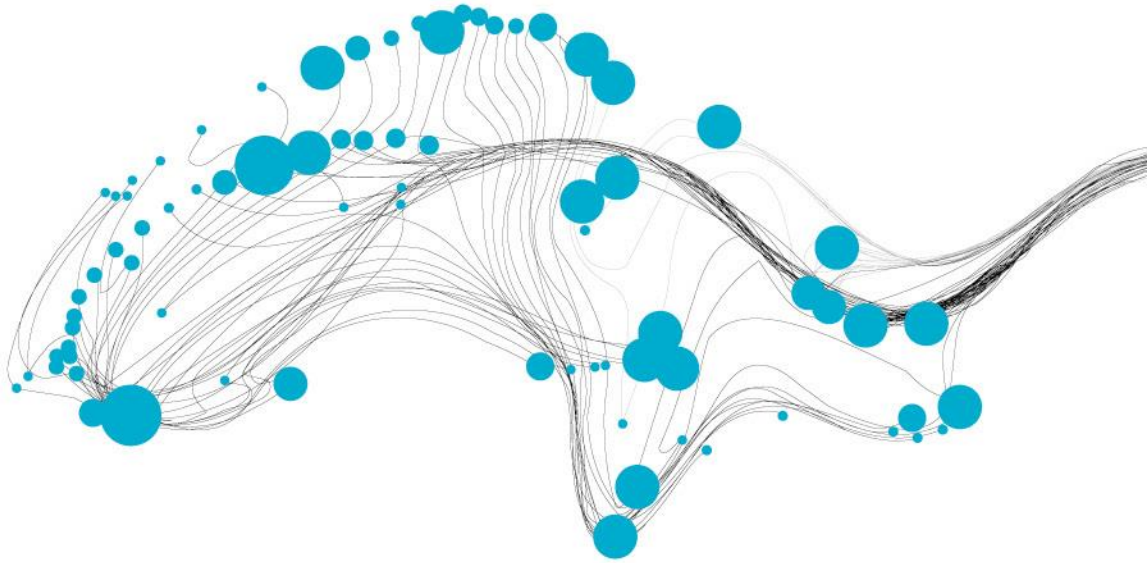
Philosophy Section / Faculty of Behavioral, Management and Social Sciences

WHO SHOULD PAY FOR CLIMATE CHANGE? CLIMATE INEQUALITIES AND INJUSTICES



GrACE Webinar
10th October 2024

Michel Bourban
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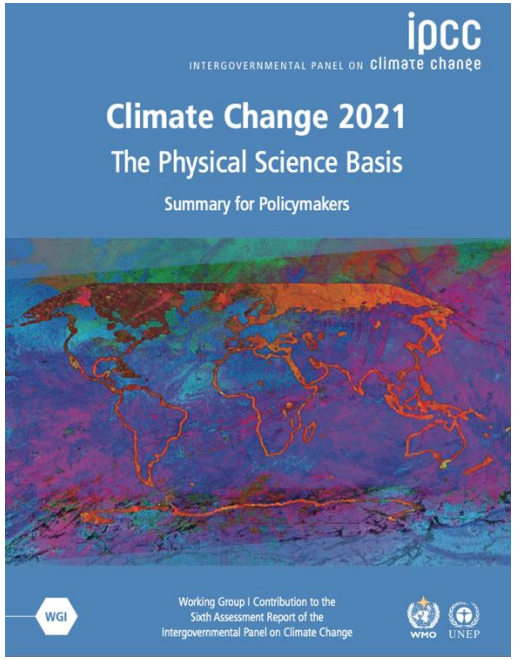
INTRODUCTION

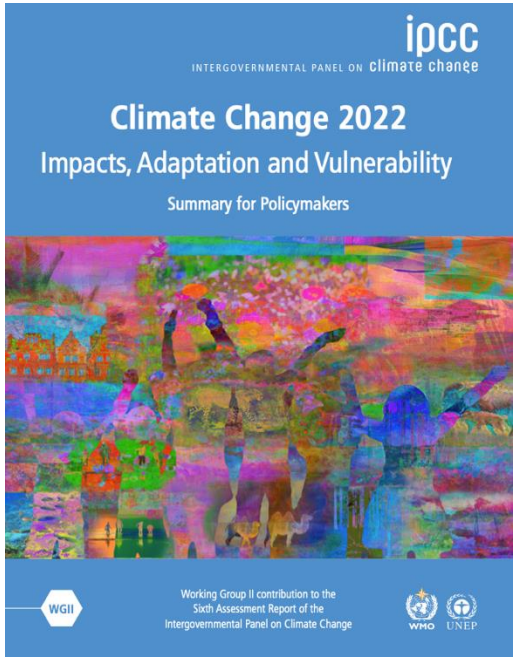
MITIGATION DUTIES: JUSTIFICATION

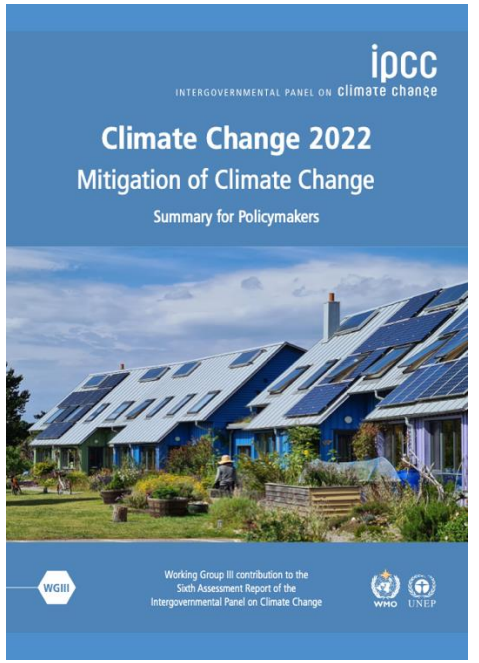
MITIGATION DUTIES: REALISATION

TEACHING CLIMATE JUSTICE

INTRODUCTION







"The cumulative scientific evidence is unequivocal: Climate change is a **threat to human well-being and planetary health**. Any further delay in concerted anticipatory global action on **adaptation** and **mitigation** will miss a **brief and rapidly closing window of opportunity** to secure a liveable and sustainable future for all. (*very high confidence*)"

(IPCC WG2 SPM 2022: 33).

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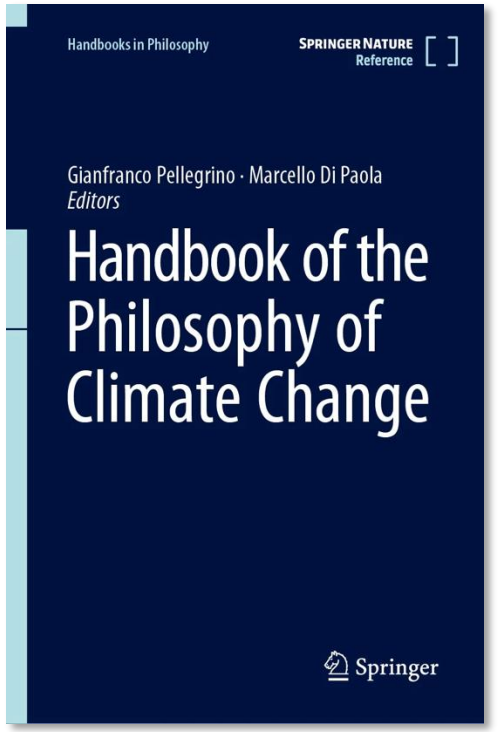
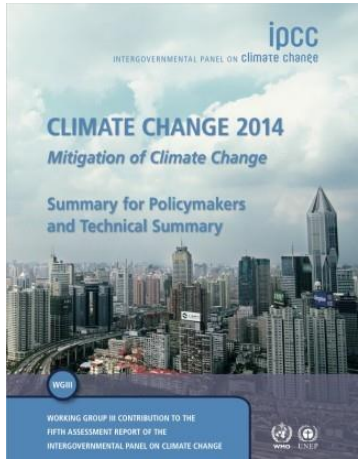
INTRODUCTION

Three main duties of climate justice :

- ***Mitigation duties*: reducing global greenhouse gas (GHG) emissions and protecting and developing carbon sinks.**
- *Adaptation duties*: protecting societies from current and future climate impacts.
- *Compensation duty*: to remedy loss and damage that could not be avoided.



INTRODUCTION



Mitigation can be defined as "a human intervention to reduce the sources or enhance the sinks of greenhouse gases." (IPCC 2014: 4). This definition follows the UNFCCC (1992, art. 4.2), which states that each Party shall mitigate climate change "by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs."

There are therefore two possible options to mitigate climate change:

1. Reducing GHG emissions
2. Protecting and enhancing the sinks in which GHGs are stored.

(1) directly cuts GHG emissions at their source. Replacing fossil fuels with renewable energies, promoting energy efficiency, and reducing energy use all fit into this category. (2) relies on CDR, that is, removing CO_2 from the atmosphere to store it in geological, terrestrial, or ocean reservoirs, or in products.

1. INTRODUCTION

	Emissions Reductions	Negative Emissions
Technological Measures	Solar panels Wind turbines Hydroelectric power stations Electric vehicles	BECCS DACCS Enhanced weathering Ocean fertilization
Non- or Low-Technological Measures	Plant-based diets Avoiding long-distance air travel Living without a car Having fewer children	Ecosystem restoration Alternative agricultural practices Afforestation Reforestation

INTRODUCTION

Research question

Who should do what and how much of it should they do to help the global effort to mitigate climate change?

Five kinds of agents can be held responsible:

1. **Nation-states**
2. **Individual agents**
3. Subnational jurisdictions
4. Supranational formations
5. Economic corporations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Cosmopolitan Justice, Responsibility, and Global Climate Change

SIMON CANEY*


DALE JAMIESON

Responsibility and Climate Change

INTRODUCTION

MITIGATION DUTIES: JUSTIFICATION

MITIGATION DUTIES: REALISATION

TEACHING CLIMATE JUSTICE

MITIGATION DUTIES: JUSTIFICATION

The United Nations Framework Convention on Climate change (UNFCCC, 1992)

Article 2

OBJECTIVE

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

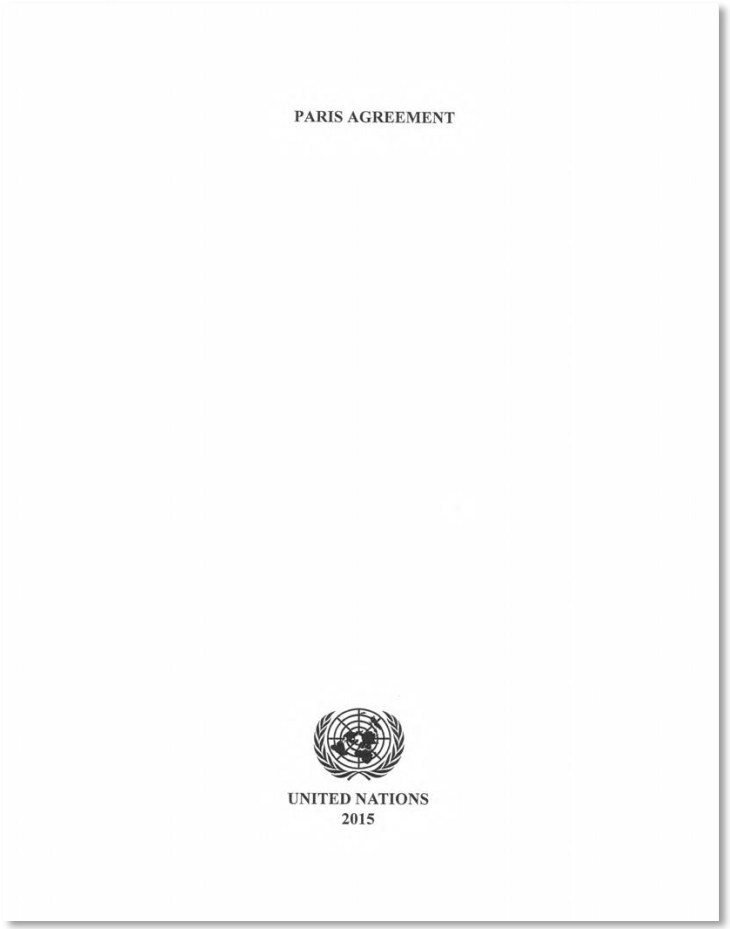
MITIGATION DUTIES: JUSTIFICATION

The Paris Agreement (2015)

Article 2

1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

(a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;



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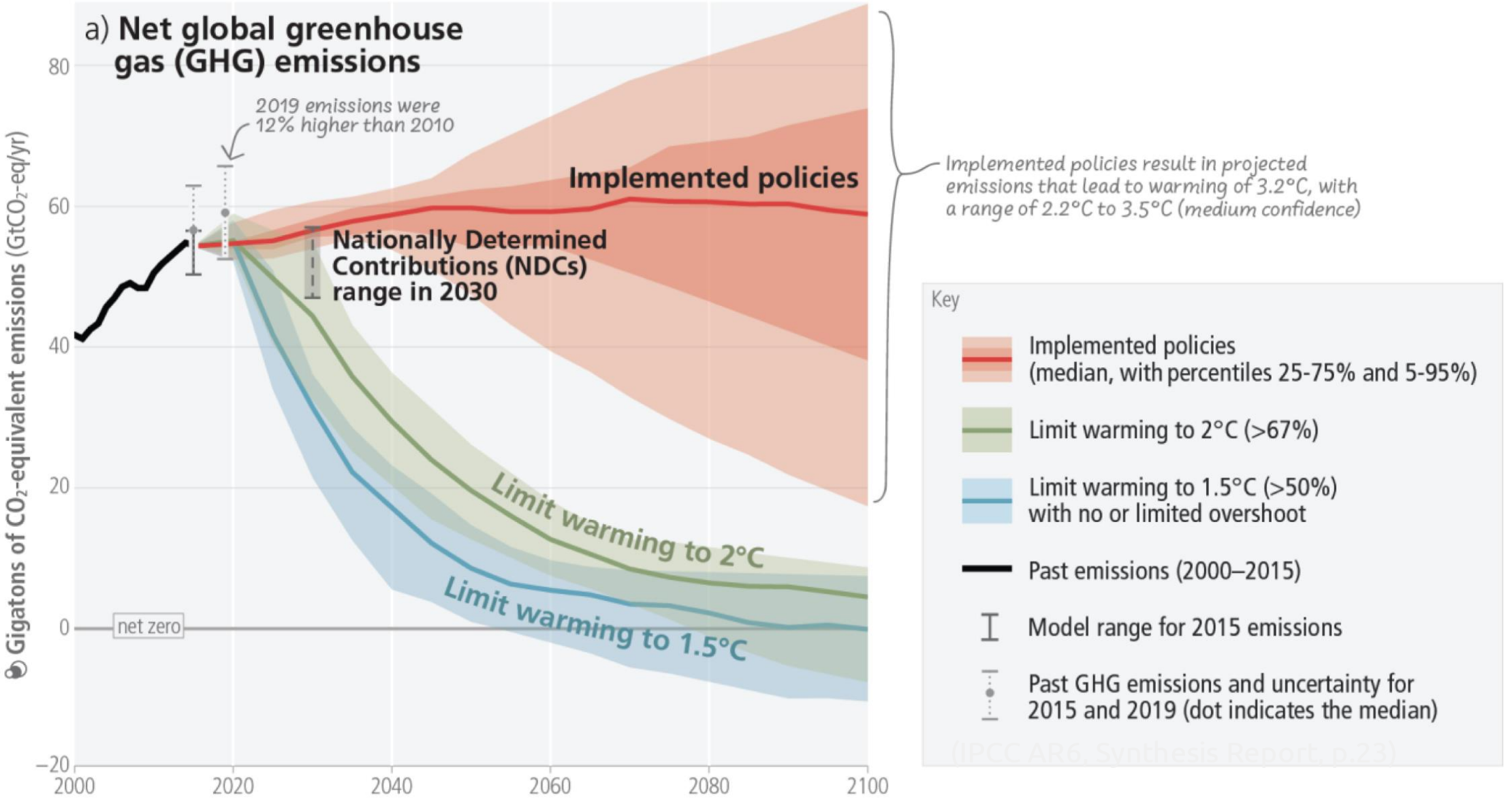
Limiting warming to 1.5°C and 2°C involves rapid, deep and in most cases immediate greenhouse gas emission reductions

Net zero CO_2 and net zero GHG emissions can be achieved through strong reductions across all sectors



(IPCC AR6, Synthesis Report, 2023, p.23)

With every increment of global warming, regional changes in mean climate and extremes become more widespread and pronounced

2011-2020 was around 1.1°C warmer than 1850-1900

the last time global surface temperature was sustained at or above 2.5°C was over 3 million years ago

The world at **+1.5°C**

The world at **+2°C**

The world at **+3°C**

The world at **+4°C**

0 1

Global warming level (GWL) above 1850-1900

°C

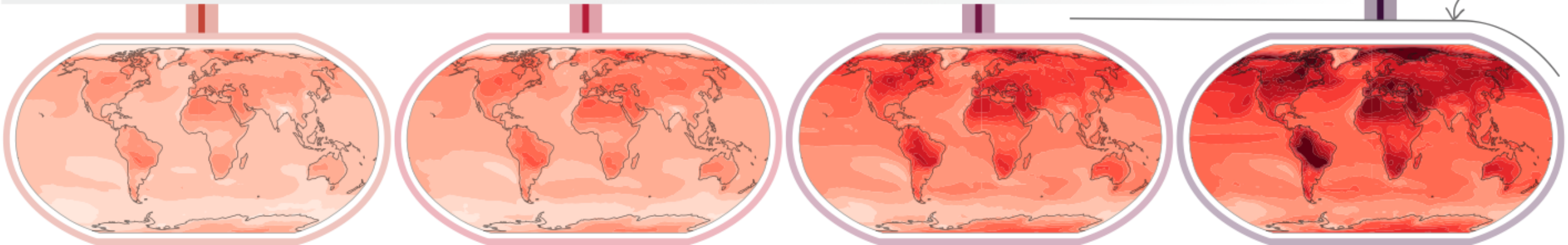
a) Annual hottest-day temperature change

change (°C)

0 1 2 3 4 5 6 7

Annual hottest day temperature is projected to increase most (1.5-2 times the GWL) in some mid-latitude and semi-arid regions, and in the South American Monsoon region.

urbanisation further intensifies heat extremes



MITIGATION DUTIES: JUSTIFICATION

Where do ethical considerations fit into this picture?

Article 2

OBJECTIVE

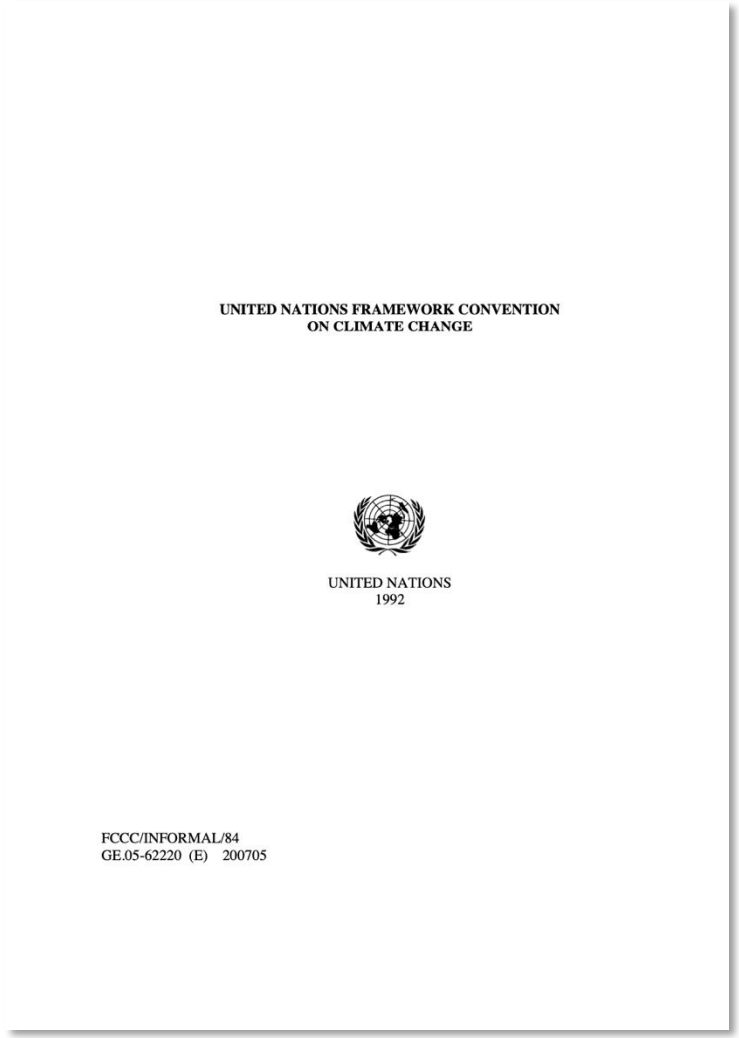
The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

Article 3

PRINCIPLES

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

1. The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.


UNITED NATIONS FRAMEWORK CONVENTION
ON CLIMATE CHANGE

UNITED NATIONS
1992

FCCC/INFORMAL/84
GE.05-62220 (E) 200705

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MITIGATION DUTIES: JUSTIFICATION

Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,

Article 2

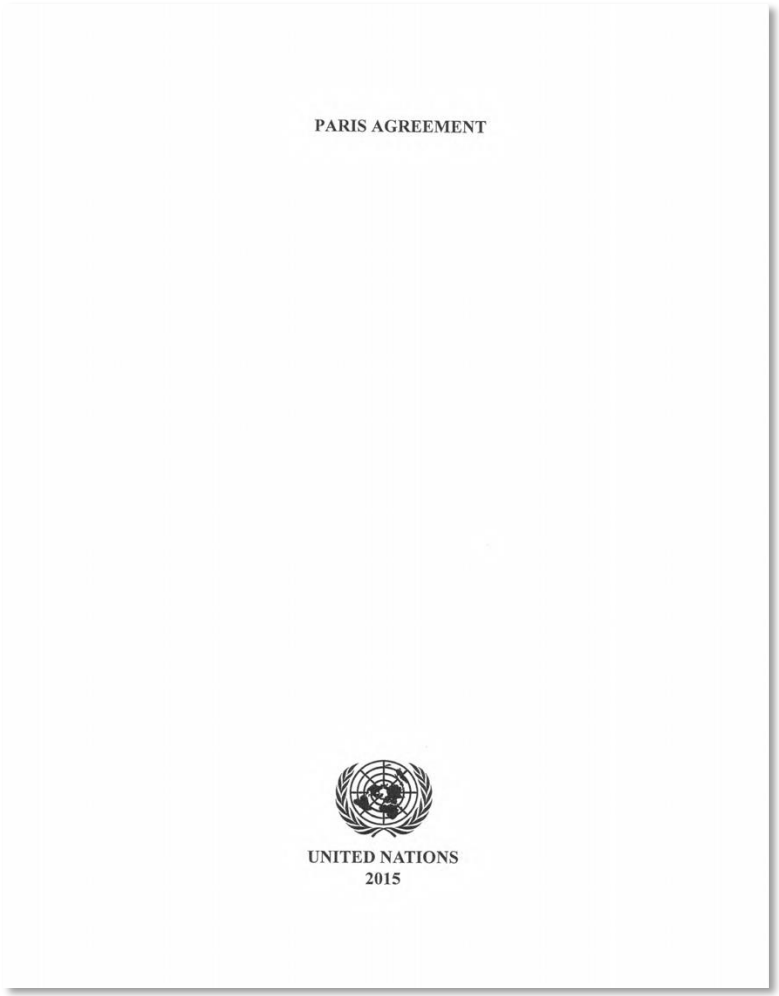
1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

(a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

(b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and

(c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

2. This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.



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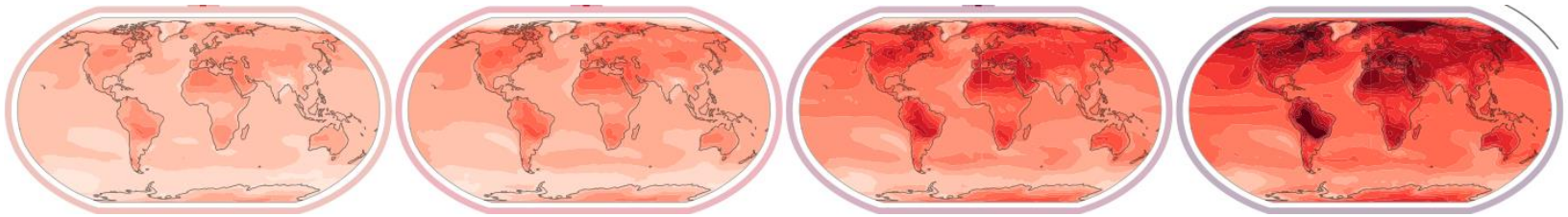
MITIGATION DUTIES: JUSTIFICATION

Each trajectory (1.5°C, 2°C, 3°C, etc.) implies very different distributions of the costs and benefits of climate policies, particularly between countries and between generations.

The costs of climate change are unevenly distributed between the regions of the world: the countries most vulnerable to climate impacts are in most cases those that have contributed least to climate change. The higher global temperatures rise, the greater these costs.

- Setting a target for mitigating climate change therefore poses a problem of distributive justice, since it implies different possible allocations of the costs and benefits raised by the fight against climate change.



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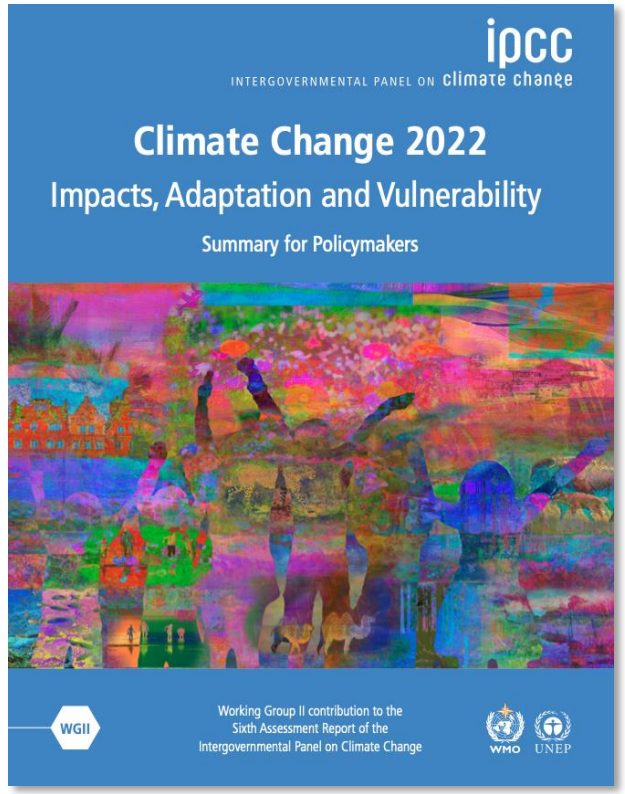
MITIGATION DUTIES: JUSTIFICATION

"Climate change has adversely affected **physical health** of people globally (*very high confidence)* and **mental health** of people in the assessed regions (*very high confidence*). Climate change impacts on health are mediated through natural and human systems, including economic and social conditions and disruptions (*high confidence*)"

"In all regions extreme heat events have resulted in human **mortality** and **morbidity** (*very high confidence*)."

"In assessed regions, some **mental health challenges** are associated with increasing temperatures (*high confidence*), trauma from weather and climate extreme events (very high confidence), and loss of livelihoods and culture (*high confidence*)" (IPCC 2022, WG2, SPM, p.11).



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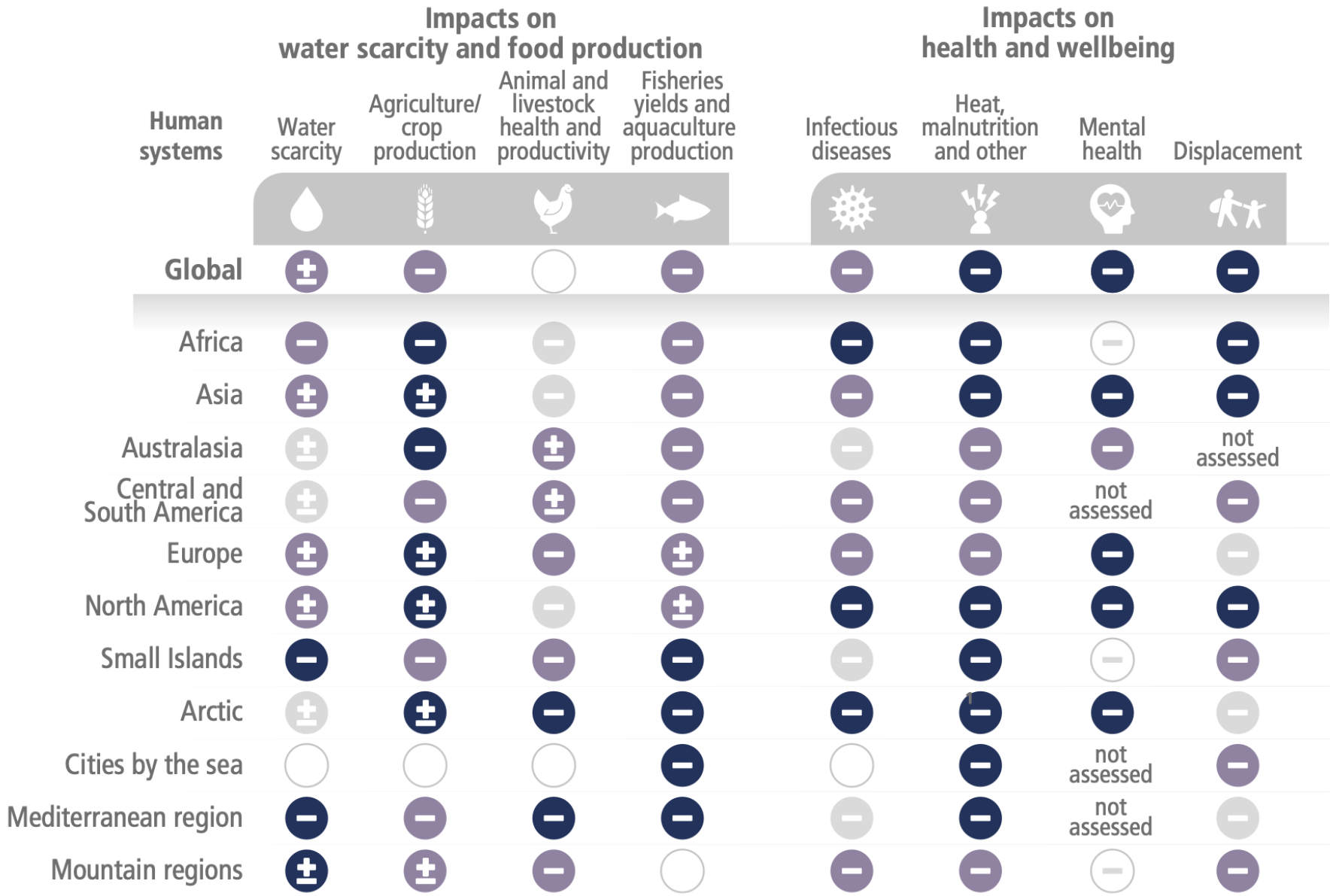
(b) Observed impacts of climate change on human systems



Confidence
in attribution
to climate change

- High or very high
- Medium
- Low
- Evidence limited, insufficient
- na Not applicable

Impacts
to human systems
in panel (b)

- – Increasing adverse impacts
- ± Increasing adverse and positive impacts

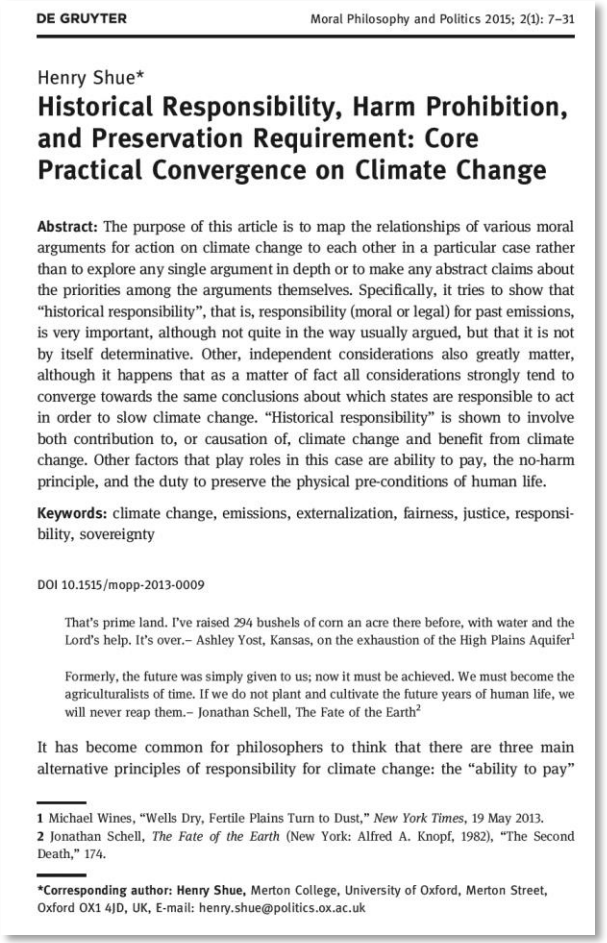
(IPCC 2022)

MITIGATION DUTIES: JUSTIFICATION

Three principles of justice to distribute responsibility for mitigation

The polluter pays principle (PPP)	• The costs of climate policies borne by agents should be proportional to their contribution to climate change.
The ability-to-pay principle (ATP)	• The costs of climate policies borne by agents should be proportional to their ability to pay for them.
The Beneficiary Pays Principle (BPP)	• The costs of climate policies borne by agents should be proportional to the benefits they have derived from past and present emitting activities.

- These principles reflect the hybrid structure of the principle of common but differentiated responsibilities and respective capabilities.
- The main responsible parties are the countries of Europe and North America, Australia and BASIC.



DE GRUYTER Moral Philosophy and Politics 2015; 2(1): 7–31

Henry Shue*

Historical Responsibility, Harm Prohibition, and Preservation Requirement: Core Practical Convergence on Climate Change

Abstract: The purpose of this article is to map the relationships of various moral arguments for action on climate change to each other in a particular case rather than to explore any single argument in depth or to make any abstract claims about the priorities among the arguments themselves. Specifically, it tries to show that "historical responsibility", that is, responsibility (moral or legal) for past emissions, is very important, although not quite in the way usually argued, but that it is not by itself determinative. Other, independent considerations also greatly matter, although it happens that as a matter of fact all considerations strongly tend to converge towards the same conclusions about which states are responsible to act in order to slow climate change. "Historical responsibility" is shown to involve both contribution to, or causation of, climate change and benefit from climate change. Other factors that play roles in this case are ability to pay, the no-harm principle, and the duty to preserve the physical pre-conditions of human life.

Keywords: climate change, emissions, externalization, fairness, justice, responsibility, sovereignty

DOI 10.1515/mopp-2013-0009

> That's prime land. I've raised 294 bushels of corn an acre there before, with water and the Lord's help. It's over.– Ashley Yost, Kansas, on the exhaustion of the High Plains Aquifer[1]
>
> Formerly, the future was simply given to us; now it must be achieved. We must become the agriculturalists of time. If we do not plant and cultivate the future years of human life, we will never reap them.– Jonathan Schell, The Fate of the Earth[2]

It has become common for philosophers to think that there are three main alternative principles of responsibility for climate change: the "ability to pay"

1 Michael Wines, "Wells Dry, Fertile Plains Turn to Dust," *New York Times*, 19 May 2013.
2 Jonathan Schell, *The Fate of the Earth* (New York: Alfred A. Knopf, 1982), "The Second Death," 174.

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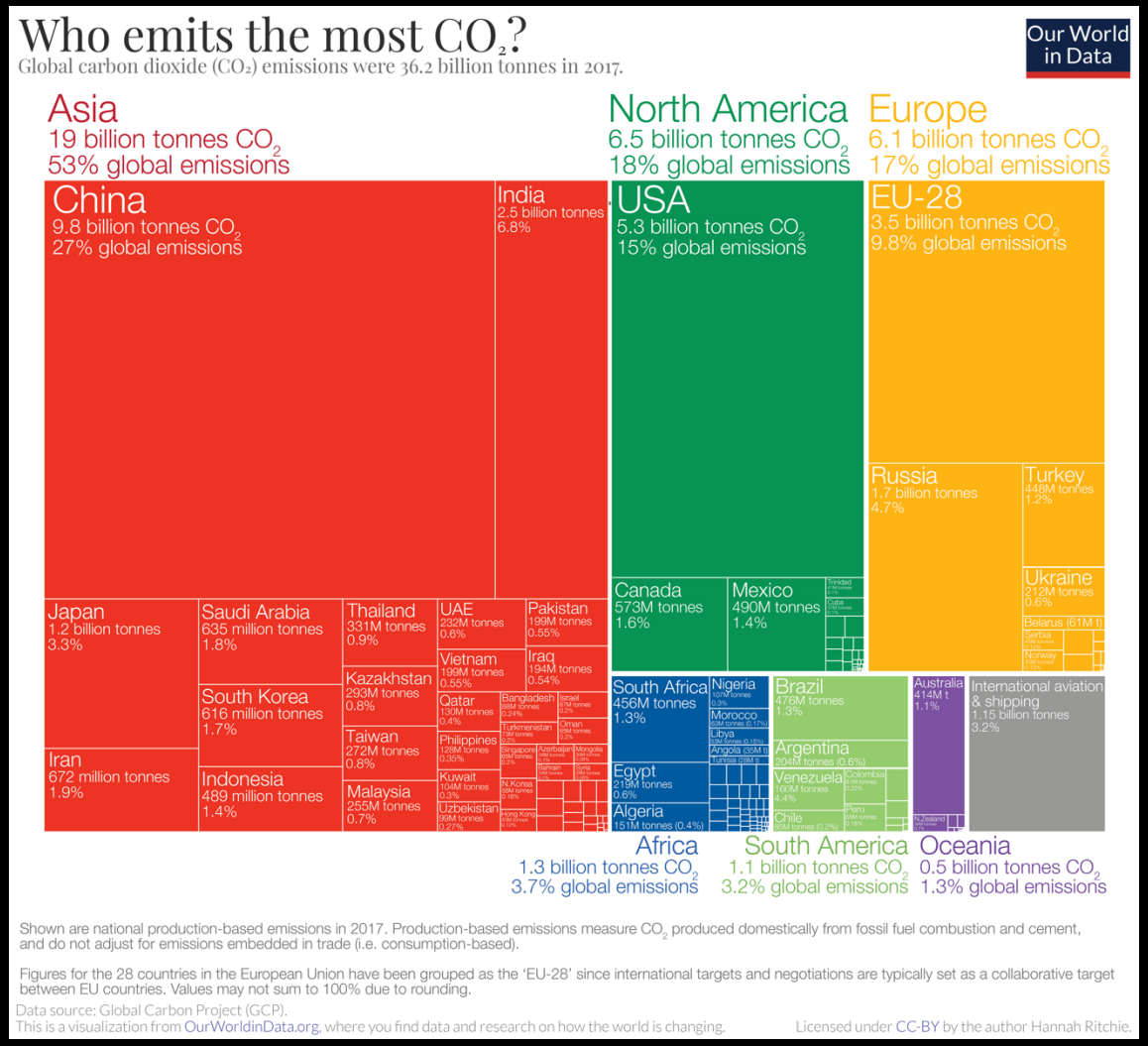
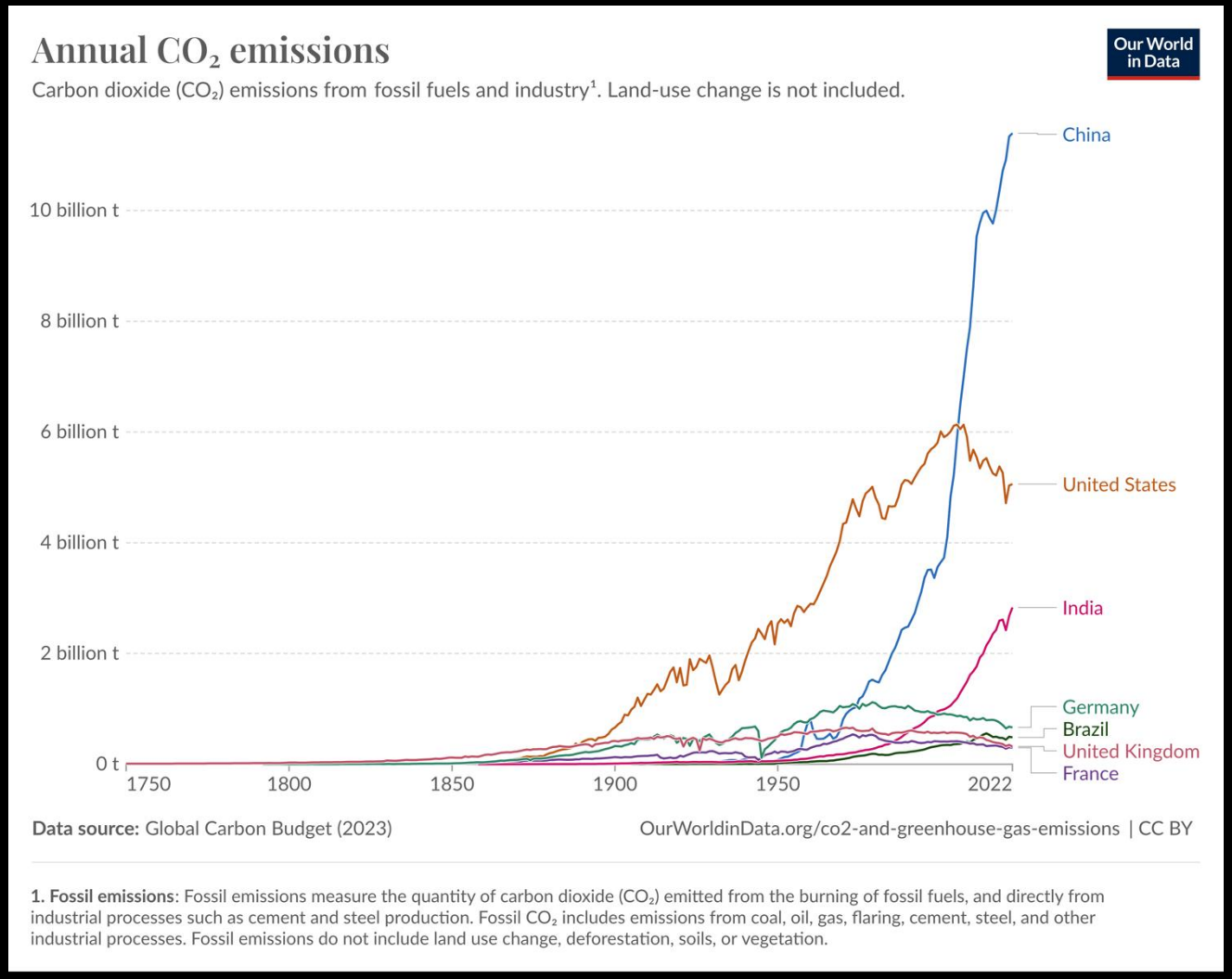
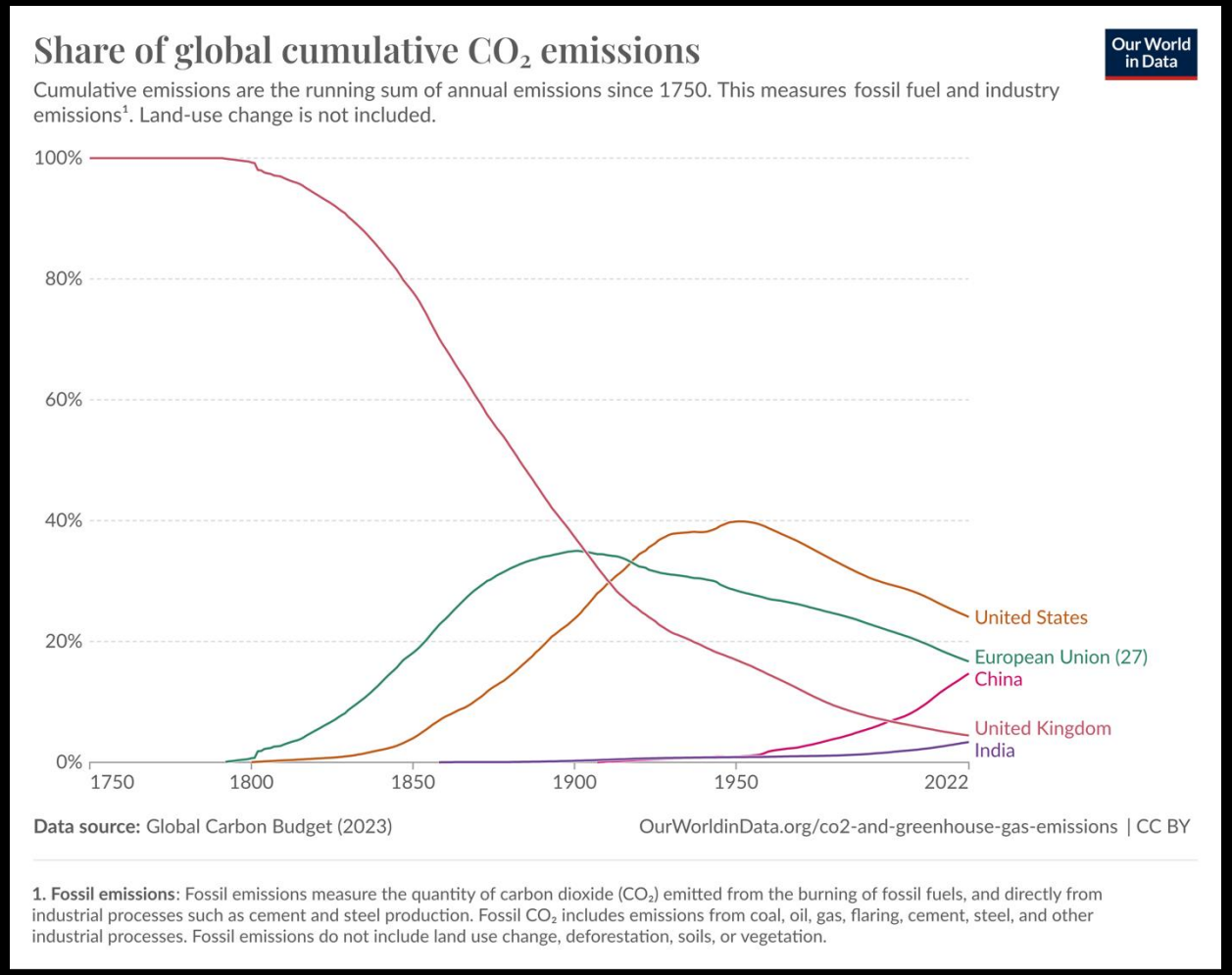
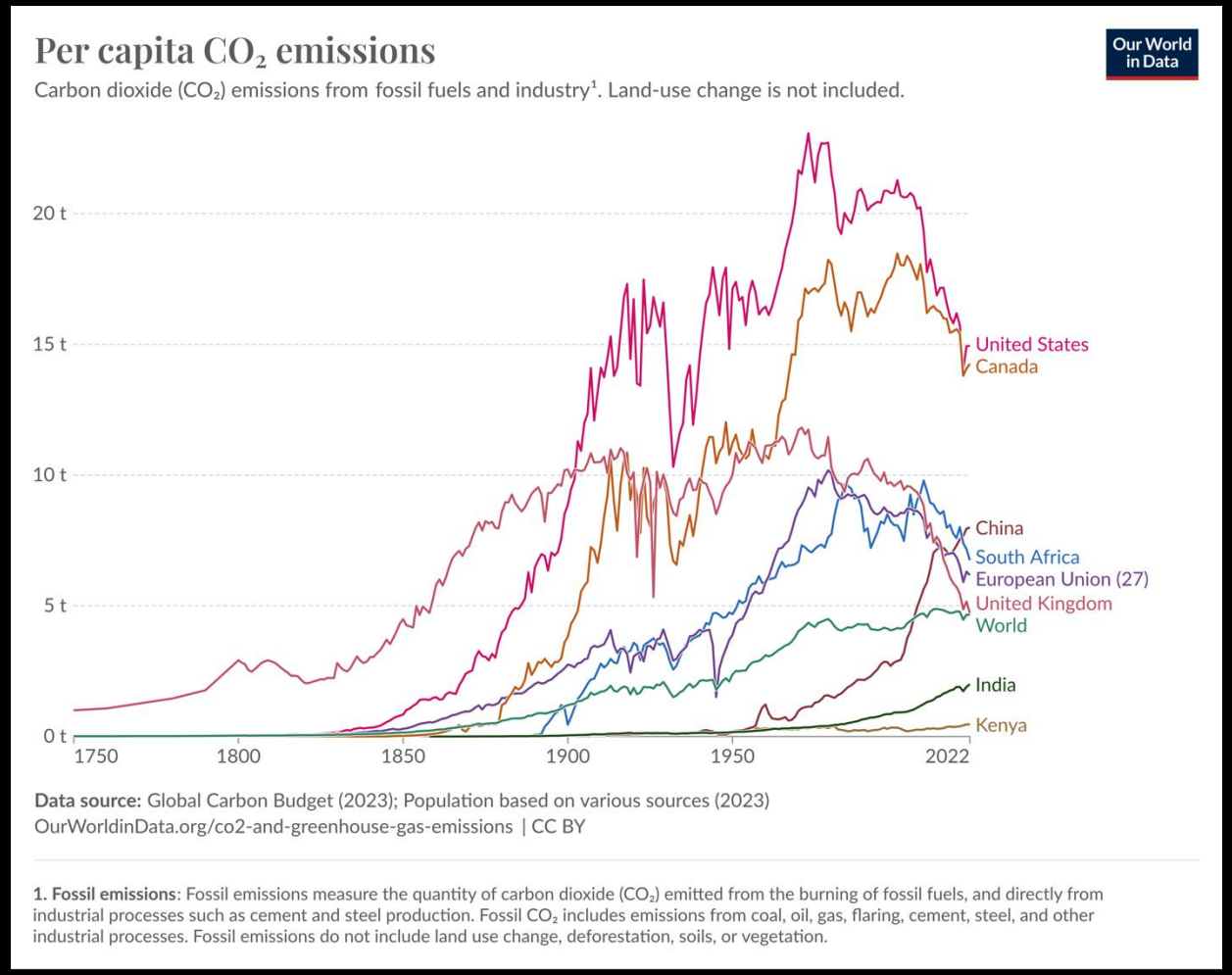
MITIGATION DUTIES: JUSTIFICATION





“MEASURING” (CAUSAL) RESPONSIBILITY





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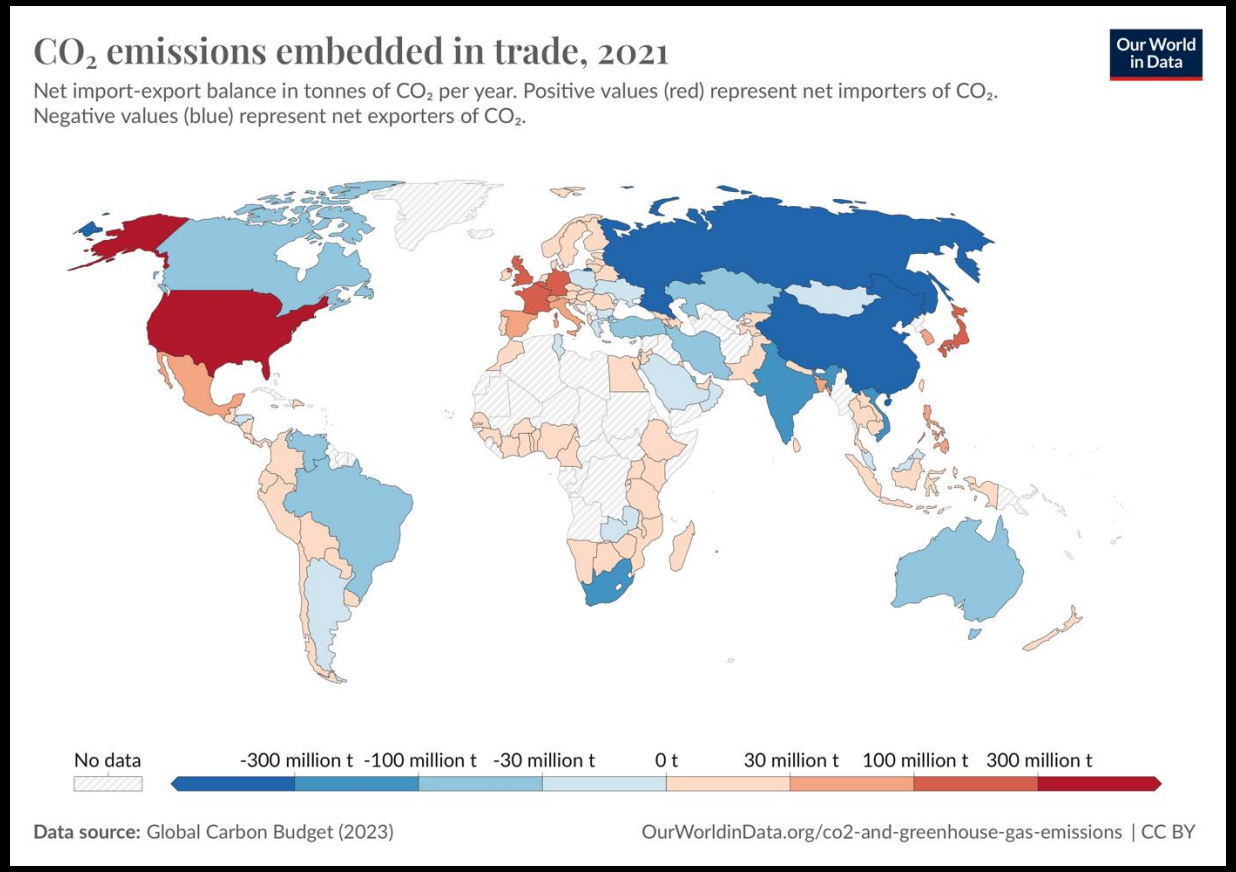

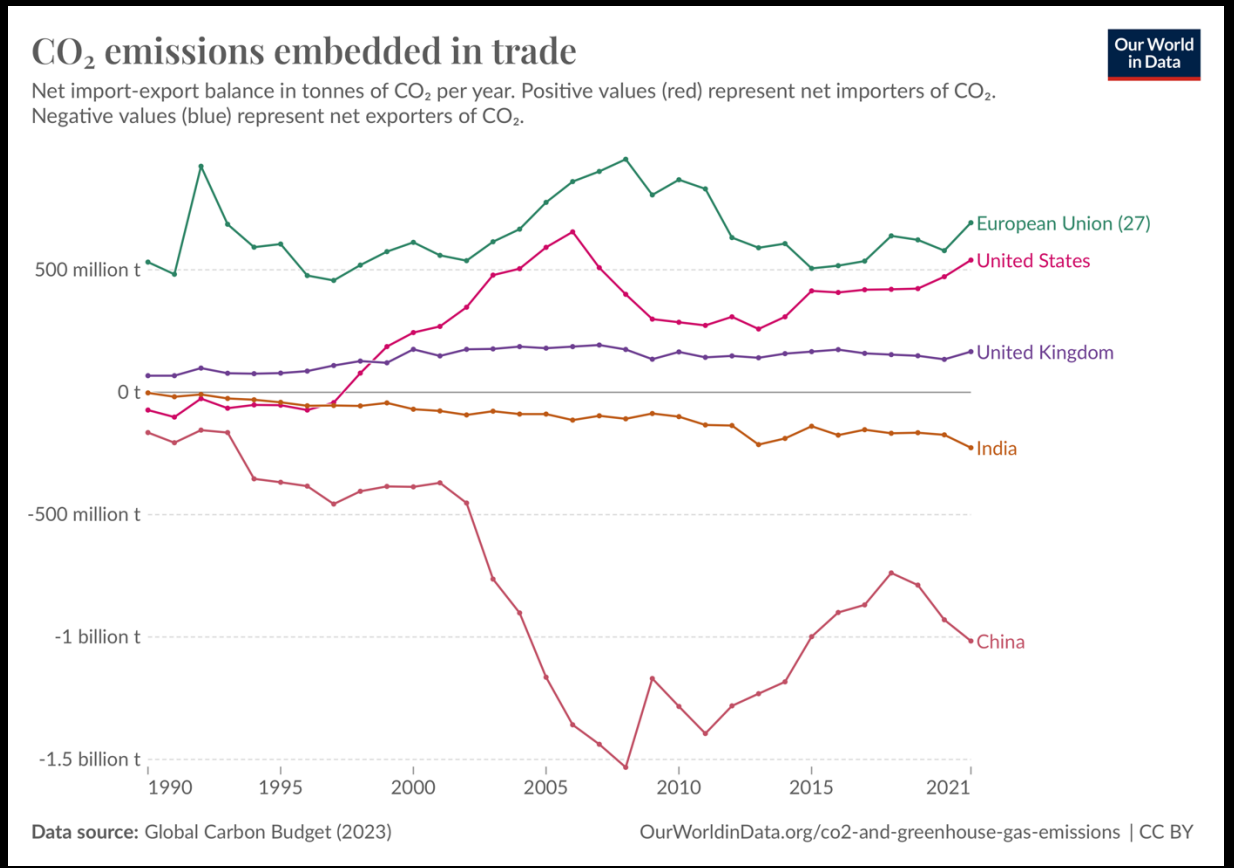

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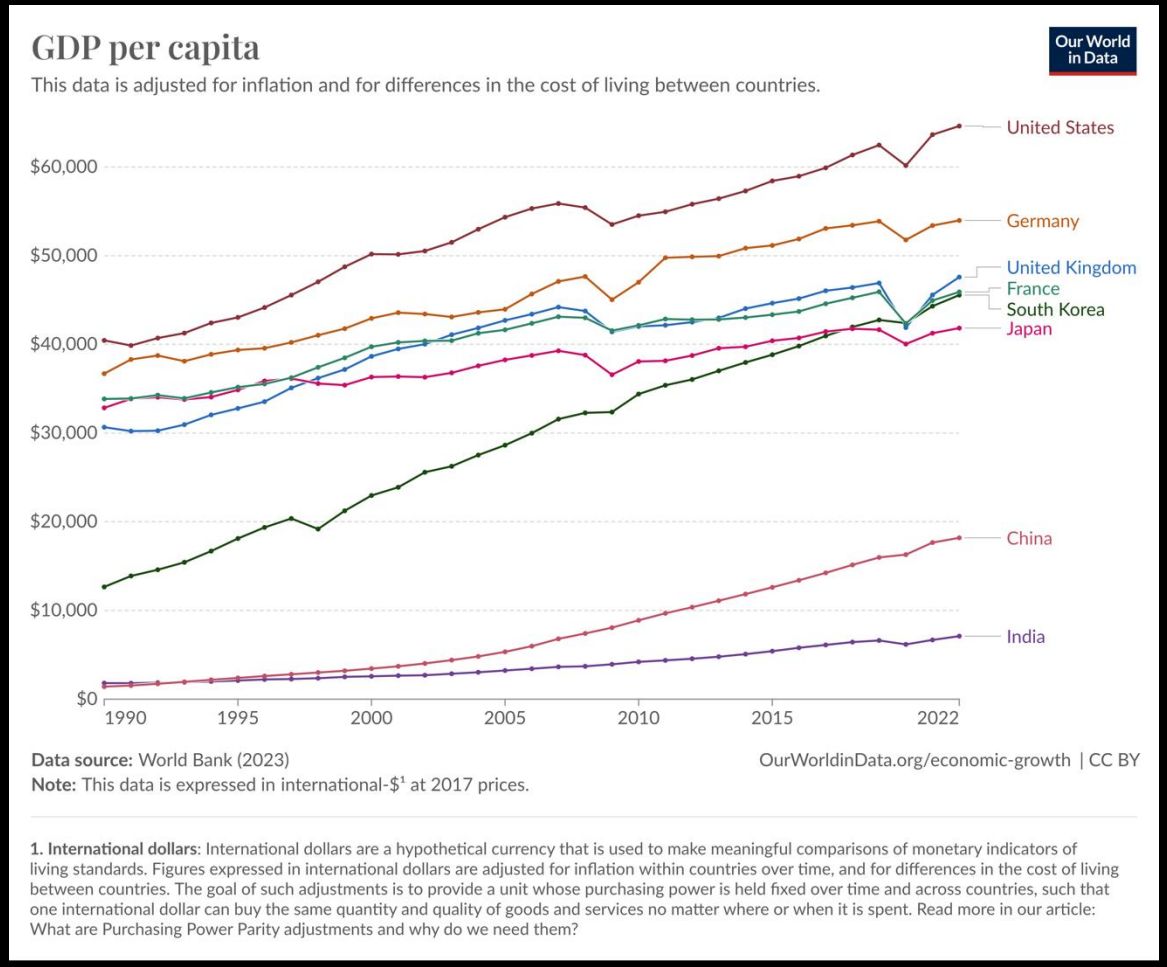
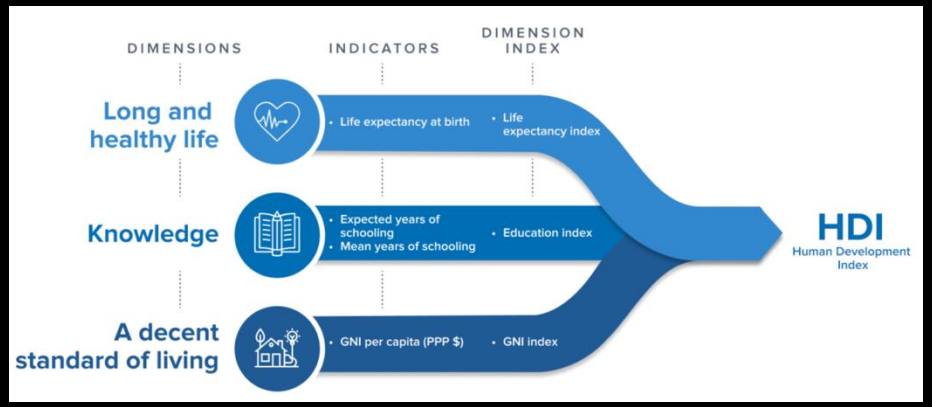
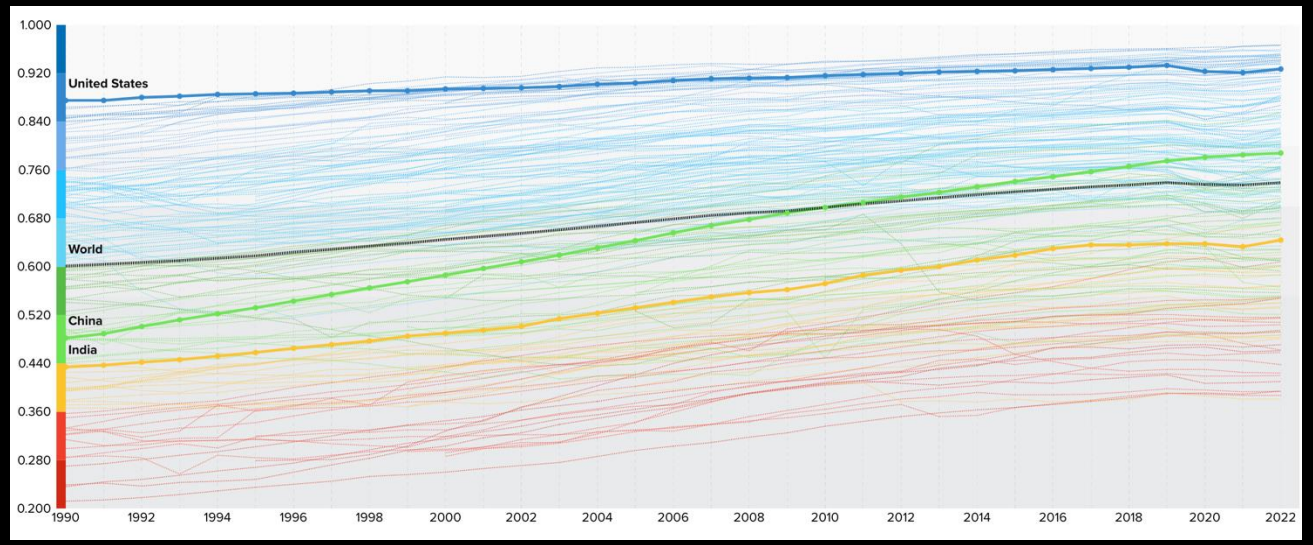






MITIGATION DUTIES: JUSTIFICATION

Table 1 The GDR Climate Justice Index. Demographics (share of population and per capita income, market exchange rates (MER) and purchasing power parity (PPP) adjusted) in 2010, along with share of capacity for 2010, share of responsibility for 2010, and Responsibility and Capacity Indicator (RCI) for selected countries and regions for 2010, 2020, and 2030. (With permission of John Wiley and Sons (Baer, 2013, p. 66))

	Percentage of global population 2010	Per capital income (SUS 2010, MER) 2010	Per capital income (SUS 2010, PPP) 2010	Percentage of global capacity 2010	Percentage of global responsibility 2010	RCI (percentage of global obligation) 2010	RCI (percentage of global obligation) 2020	RCI (percentage of global obligation) 2030
United States	4.6%	45,922	45,922	29.7%	29.2%	29.4%	26.4%	21.6%
EU 27	7.3%	33,040	32,101	30.9%	21.2%	26.0%	22.3%	17.4%
EU 15	5.8%	38,419	35,407	29.1%	17.8%	23.4%	19.9%	15.4%
EU 12+	1.5%	12,122	19,243	1.8%	3.4%	2.6%	2.3%	2.1%
Japan	1.8%	42,985	33,874	10.2%	5.0%	7.6%	6.3%	4.7%
Russia	2.05	10,543	20,036	2.3%	9.4%	5.8%	5.4%	5.1%
China	19.6%	4542	7794	4.8%	5.4%	5.1%	12.2%	21.8%
India	17.6%	1422	3454	0.2%	0.3%	0.3%	0.9%	2.9%
Brazil	2.8%	10,684	11,183	2.6%	3.1%	2.8%	2.8%	2.7%
South Africa	0.7%	7203	10,465	0.4%	1.3%	0.9%	0.9%	0.9%
High income	15.1%	40,317	38,970	81.9%	65.5%	73.7%	65.6%	53.4%
LDCs	11.4%	767	1585	0.1%	0.5%	0.3%	0.3%	0.3%
World	100.0%	9088	11,086	100.0%	100.0%	100.0%	100.0%	100.0%

The **Greenhouse Development Rights Framework (GDR) index** is composed of a responsibility indicator (cumulative national emissions since 1990) and a capacity indicator (per capita annual income above a development threshold of $8500).

This index determines the percentage of total global obligation for each country by giving each indicator the same weight. Results for 2010:

- USA held 29.4% of global obligation,
- The EU$ 26%,
- Japan 7.6%,
- Russia 5.8%,
- China 5.1%,
- Brazil 2.8%,
- South Africa 0.9%,
- India 0.3%.

In total, **high-income countries held 73.7%** of global obligation, the **least developed countries (LDCs) 0.3%,** and the remaining **26%** fell to new emitting countries, such as countries from the Brazil, South Africa, India, and China (BASIC) group

MITIGATION DUTIES: JUSTIFICATION

In his model of fair allocation of the carbon budget, Eloi Laurent proposes to rely on **per capita emissions** rather than national emissions and to include levels of human development (according to the Human Development Index) and projected population increase.

His index is complementary to the GDR framework in the sense that he also finds high-income countries, especially the US, Canada, Germany, and Japan, as the most responsible for bearing the burden of mitigation policies.

For instance, he finds that the US, Canada, Germany, and Japan owe respectively 17, 9, 2, and 1 billion(s) of tons of CO_2 to other countries, a "negative carbon budget" they have to pay "by investing in carbon sinks or by transferring technology and/or financing to accelerate emission reductions in carbon positive carbon budget countries".

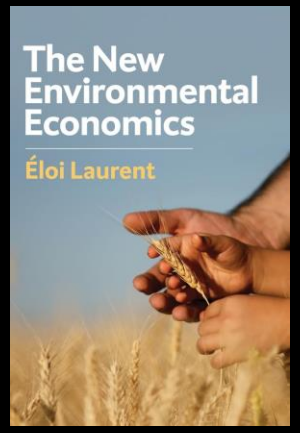


Table 8.5 A simple model of fair and efficient climate justice

Top twenty CO_2 emitters: 76% of global emissions	% of the global average of consumption emissions per capita, averaged over 1990–2012	% of the global average of HDI, averaged over 1990–2012	Average distance to 100 of (1) and (2)	Projected population increase until 2050	Equal distribution of 75% of 1,200bn tonnes of CO_2	Carbon budget per country: = (5) + or − (3) + or − (4)
			(in %)	(in %)	(in bn tonnes)	(in bn tonnes)
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	
India	27	75	49	24	45	78
Indonesia	30	95	38	22	45	72
Brazil	43	106	26	12	45	62
Thailand	70	102	14	-5	45	49
China	85	97	9	-2	45	48
Mexico	83	108	5	27	45	59
Turkey	96	104	0	20	45	54
Iran	123	103	-13	17	45	47
South Africa	137	94	-15	28	45	51
France	187	122	-55	9	45	24
Italy	210	121	-65	-8	45	12
UK	232	123	-78	14	45	16
South Korea	233	121	-77	0	45	10
Russia	253	112	-82	-8	45	5
Japan	249	123	-86	-16	45	-1
Germany	280	124	-102	-3	45	-2
Saudi Arabia	296	114	-105	36	45	14
Australia	319	127	-123	33	45	5
Canada	361	125	-143	22	45	-9
US	391	125	-158	20	45	-17
Total					**900**	**576**

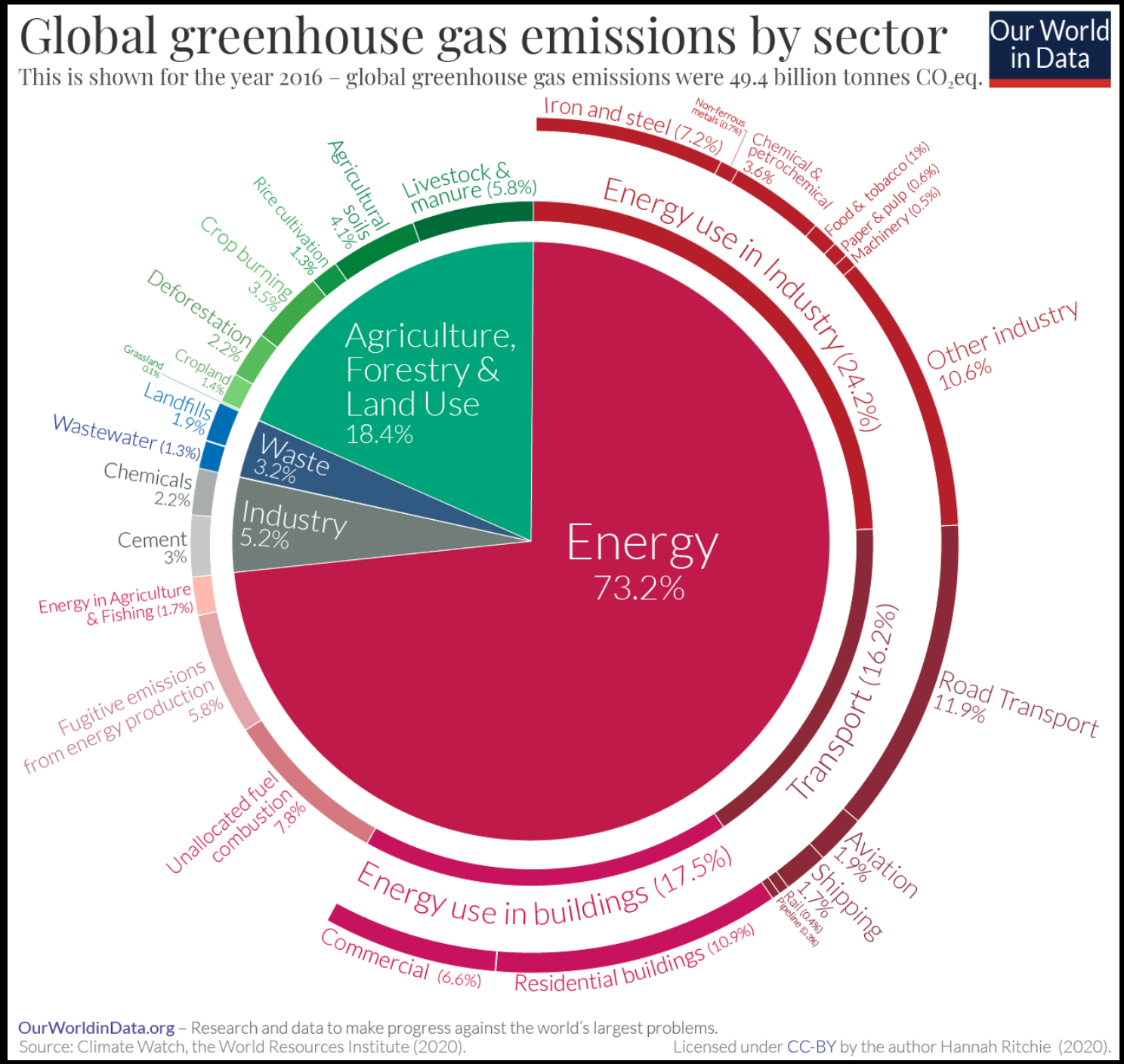
INTRODUCTION

MITIGATION DUTIES: JUSTIFICATION

MITIGATION DUTIES: REALISATION

TEACHING CLIMATE JUSTICE

MITIGATION DUTIES: REALISATION



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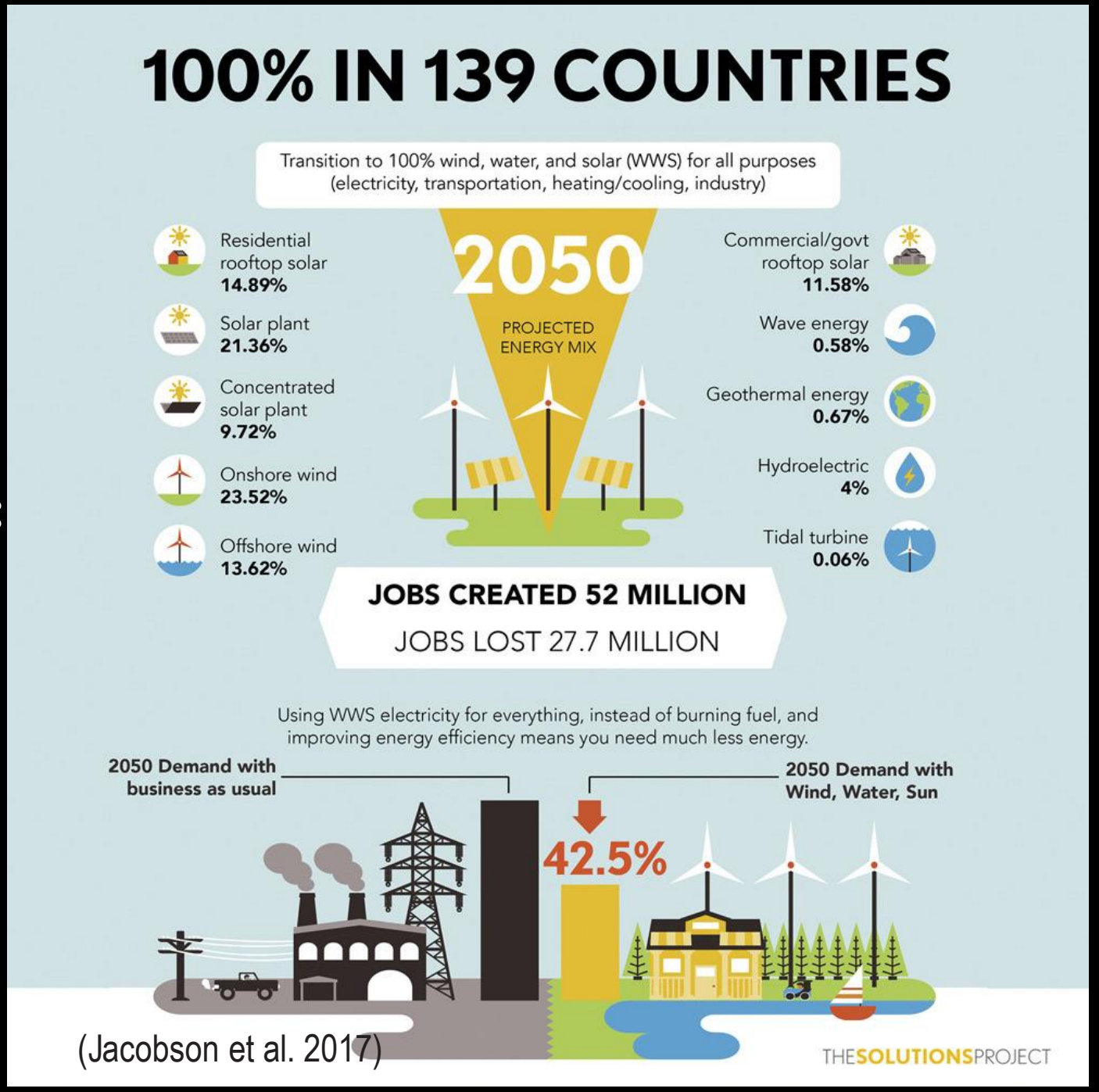
MITIGATION DUTIES: REALISATION

The « IPAT » equation :

Impact = **Population** x **Affluence** x **Technology**

(Ehrlich et Holdren 1970)

MITIGATION DUTIES: REALISATION



(Jacobson et al. 2017)

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MITIGATION DUTIES: REALISATION

CHAPTER 9

Beyond business as usual: alternative wedges to avoid catastrophic climate change and create sustainable societies

Philip Cafaro

Regulation

Prohibiton

(Jacobson et al. 2017)

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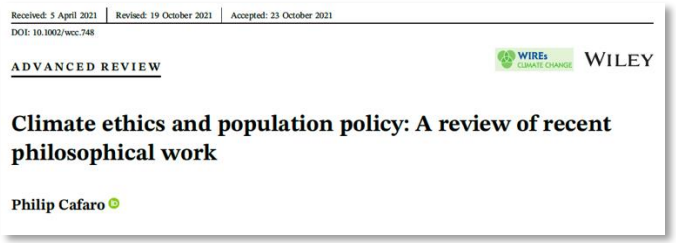
MITIGATION DUTIES: REALISATION

The total carbon footprint of a child born in the United States is more than **160 times greater** than that of a child born in Bangladesh, and **200 times greater** than that of a child born in Niger.


Received: 5 April 2021 | Revised: 19 October 2021 | Accepted: 23 October 2021
DOI: 10.1002/wcc.748

ADVANCED REVIEW

WIREs CLIMATE CHANGE WILEY

Climate ethics and population policy: A review of recent philosophical work

Philip Cafaro

Education incentivisation coercion

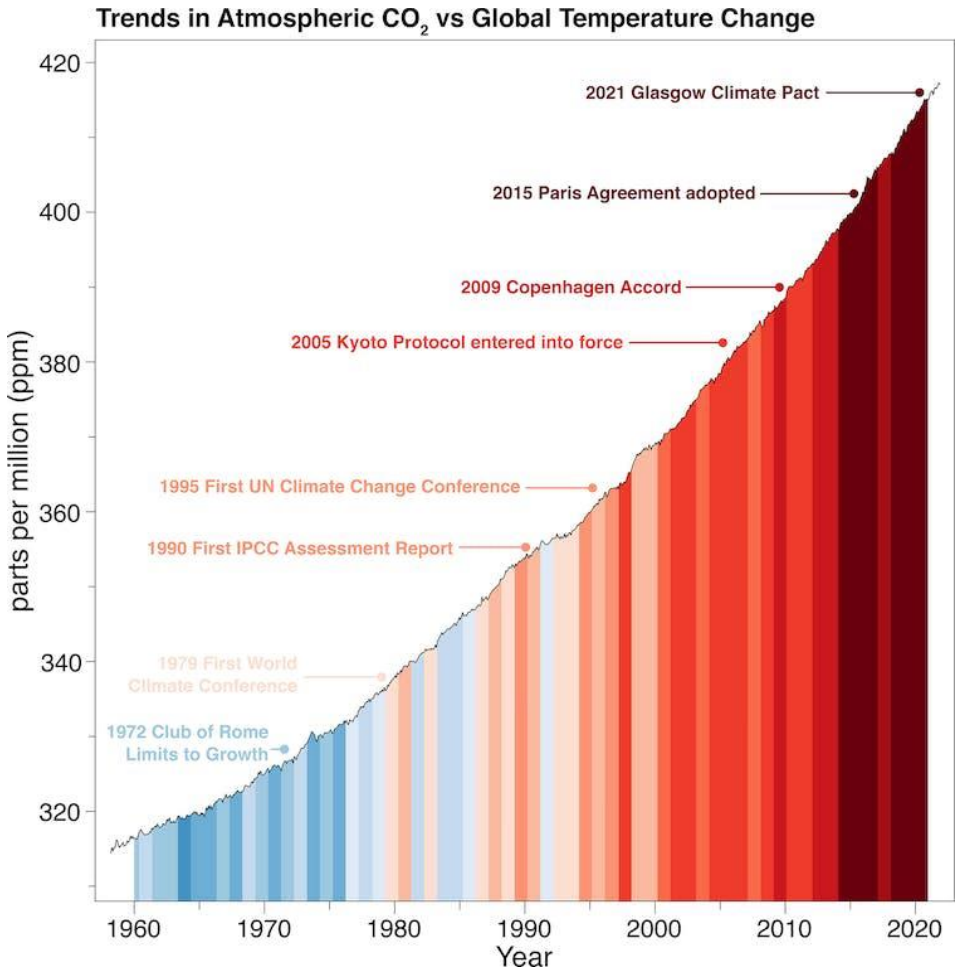
UNIVERSITY OF TWENTE.

MITIGATION DUTIES: REALISATION

But what if states are not doing enough?

- Despite the justification of principles of climate justice, governments are not (fully) complying with their duties of justice.
- The framework put in place by the Paris Agreement has so far proved insufficient to move towards the objective of limiting global warming to 2°C while continuing the action taken to limit it to 1.5°C.

➢ Need for climate action at other levels, by non-state actors.

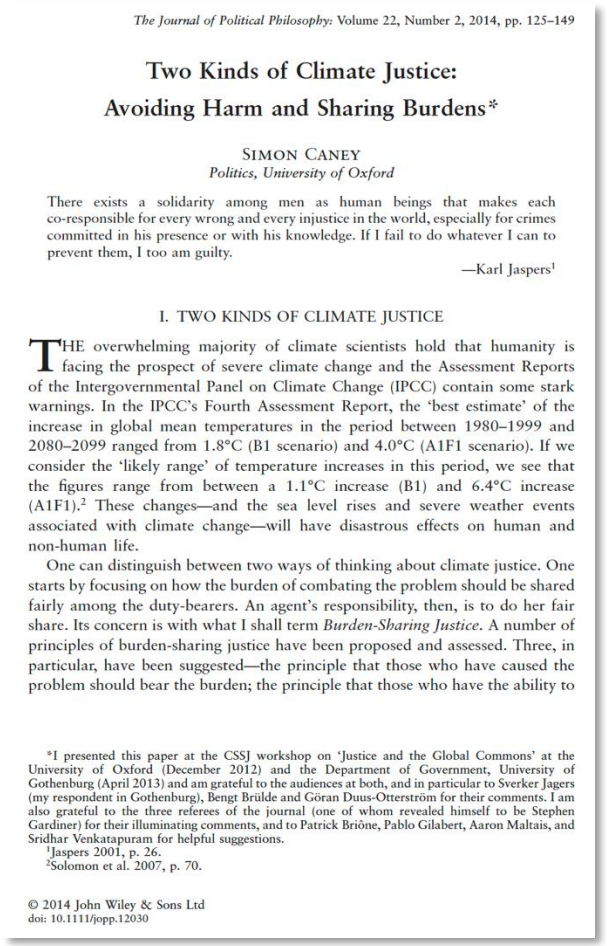


MITIGATION DUTIES: REALISATION

Two orders of responsibility

- *First-order responsibilities*: responsibilities that certain agents have to perform (or omit) certain actions, such as the responsibility of states to mitigate climate change.

- *Second-order responsibilities*: responsibilities that other agents such as individuals have to ensure that states comply with their first order responsibilities, typically in cases of partial compliance or non-compliance.



The Journal of Political Philosophy: Volume 22, Number 2, 2014, pp. 125–149

Two Kinds of Climate Justice:
Avoiding Harm and Sharing Burdens*

SIMON CANEY
Politics, University of Oxford

There exists a solidarity among men as human beings that makes each co-responsible for every wrong and every injustice in the world, especially for crimes committed in his presence or with his knowledge. If I fail to do whatever I can to prevent them, I too am guilty.

—Karl Jaspers[1]

I. TWO KINDS OF CLIMATE JUSTICE

THE overwhelming majority of climate scientists hold that humanity is facing the prospect of severe climate change and the Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC) contain some stark warnings. In the IPCC's Fourth Assessment Report, the 'best estimate' of the increase in global mean temperatures in the period between 1980–1999 and 2080–2099 ranged from 1.8°C (B1 scenario) and 4.0°C (A1F1 scenario). If we consider the 'likely range' of temperature increases in this period, we see that the figures range from between a 1.1°C increase (B1) and 6.4°C increase (A1F1).[2] These changes—and the sea level rises and severe weather events associated with climate change—will have disastrous effects on human and non-human life.

One can distinguish between two ways of thinking about climate justice. One starts by focusing on how the burden of combating the problem should be shared fairly among the duty-bearers. An agent's responsibility, then, is to do her fair share. Its concern is with what I shall term *Burden-Sharing Justice*. A number of principles of burden-sharing justice have been proposed and assessed. Three, in particular, have been suggested—the principle that those who have caused the problem should bear the burden; the principle that those who have the ability to

*I presented this paper at the CSSJ workshop on 'Justice and the Global Commons' at the University of Oxford (December 2012) and the Department of Government, University of Gothenburg (April 2013) and am grateful to the audiences at both, and in particular to Sverker Jagers (my respondent in Gothenburg), Bengt Brülde and Göran Duus-Otterström for their comments. I am also grateful to the three referees of the journal (one of whom revealed himself to be Stephen Gardiner) for their illuminating comments, and to Patrick Briône, Pablo Gilabert, Aaron Maltais, and Sridhar Venkatapuram for helpful suggestions.

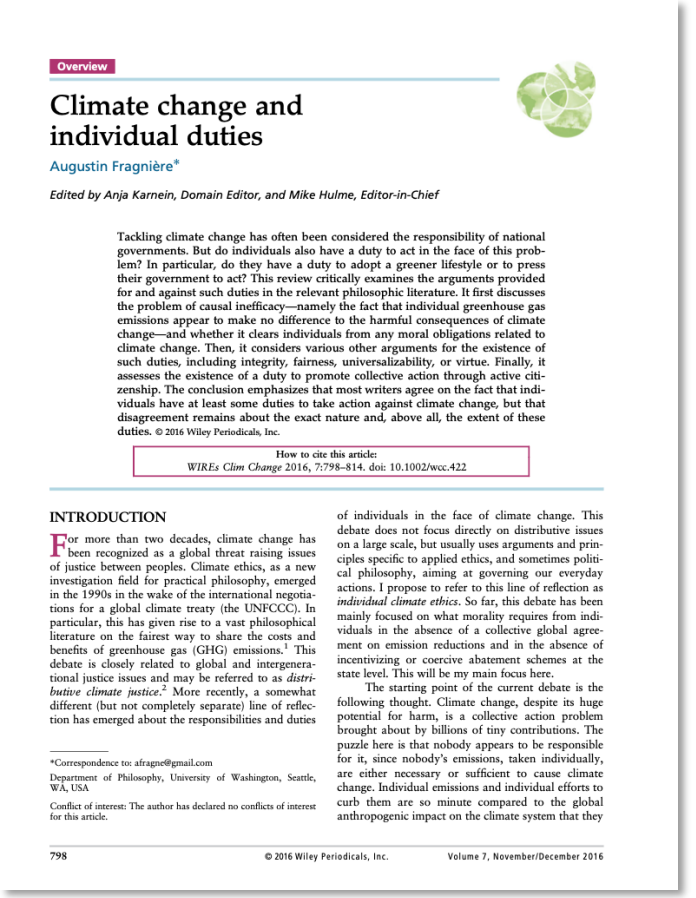
[1]Jaspers 2001, p. 26.
[2]Solomon et al. 2007, p. 70.

doi: 10.1111/jopp.12030

MITIGATION DUTIES: REALISATION

The individual duty to promote and support collective action against climate change:

- A duty to change and create institutions: voting green, using (un)civil disobedience, write blogs and articles, petition one's local government, email one's representatives or executives, organize and/or attend demonstrations, donate to organizations,…
- A duty to change and create social norms: adapt one's lifestyles, develop communication strategies to amplify the effects of one's green behaviors, frame greener lifestyles as appealing,…



Overview

Climate change and individual duties

Augustin Fragnière*

Edited by Anja Karnein, Domain Editor, and Mike Hulme, Editor-in-Chief

Tackling climate change has often been considered the responsibility of national governments. But do individuals also have a duty to act in the face of this problem? In particular, do they have a duty to adopt a greener lifestyle or to press their government to act? This review critically examines the arguments provided for and against such duties in the relevant philosophic literature. It first discusses the problem of causal inefficacy—namely the fact that individual greenhouse gas emissions appear to make no difference to the harmful consequences of climate change—and whether it clears individuals from any moral obligations related to climate change. Then, it considers various other arguments for the existence of such duties, including integrity, fairness, universalizability, or virtue. Finally, it assesses the existence of a duty to promote collective action through active citizenship. The conclusion emphasizes that most writers agree on the fact that individuals have at least some duties to take action against climate change, but that disagreement remains about the exact nature and, above all, the extent of these duties.

How to cite this article:
WIREs Clim Change 2016, 7:798–814. doi: 10.1002/wcc.422

INTRODUCTION

For more than two decades, climate change has been recognized as a global threat raising issues of justice between peoples. Climate ethics, as a new investigation field for practical philosophy, emerged in the 1990s in the wake of the international negotiations for a global climate treaty (the UNFCCC). In particular, this has given rise to a vast philosophical literature on the fairest way to share the costs and benefits of greenhouse gas (GHG) emissions.[1] This debate is closely related to global and intergenerational justice issues and may be referred to as *distributive climate justice*.[2] More recently, a somewhat different (but not completely separate) line of reflection has emerged about the responsibilities and duties of individuals in the face of climate change. This debate does not focus directly on distributive issues on a large scale, but usually uses arguments and principles specific to applied ethics, and sometimes political philosophy, aiming at governing our everyday actions. I propose to refer to this line of reflection as *individual climate ethics*. So far, this debate has been mainly focused on what morality requires from individuals in the absence of a collective global agreement on emission reductions and in the absence of incentivizing or coercive abatement schemes at the state level. This will be my main focus here.

The starting point of the current debate is the following thought. Climate change, despite its huge potential for harm, is a collective action problem brought about by billions of tiny contributions. The puzzle here is that nobody appears to be responsible for it, since nobody's emissions, taken individually, are either necessary or sufficient to cause climate change. Individual emissions and individual efforts to curb them are so minute compared to the global anthropogenic impact on the climate system that they

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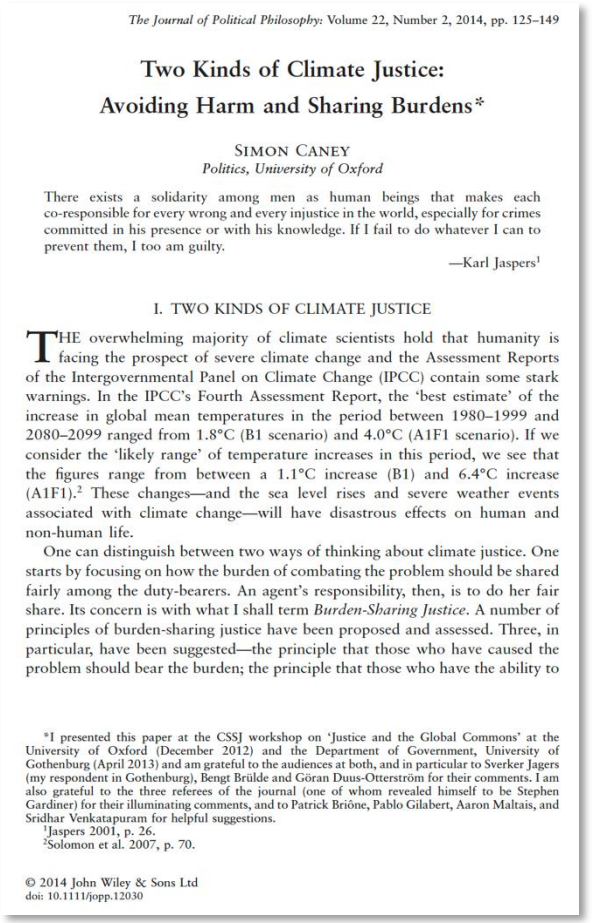
Conflict of interest: The author has declared no conflicts of interest for this article.

MITIGATION DUTIES: REALISATION

Different individual actors have different second-order responsibilities:

- Journalists, poets, novelists, researchers, and communicators are more likely to successfully promote green lifestyles.
- Lawyers can contribute to climate litigation and help those who engage in lawsuits against states, corporations, and other entities.
- Climate scientists can play a part in undermining resistance to effective climate policies by rebutting factual errors and misleading statements by climate deniers.
- Engineers can design more sustainable power plants, buildings, and infrastructures.



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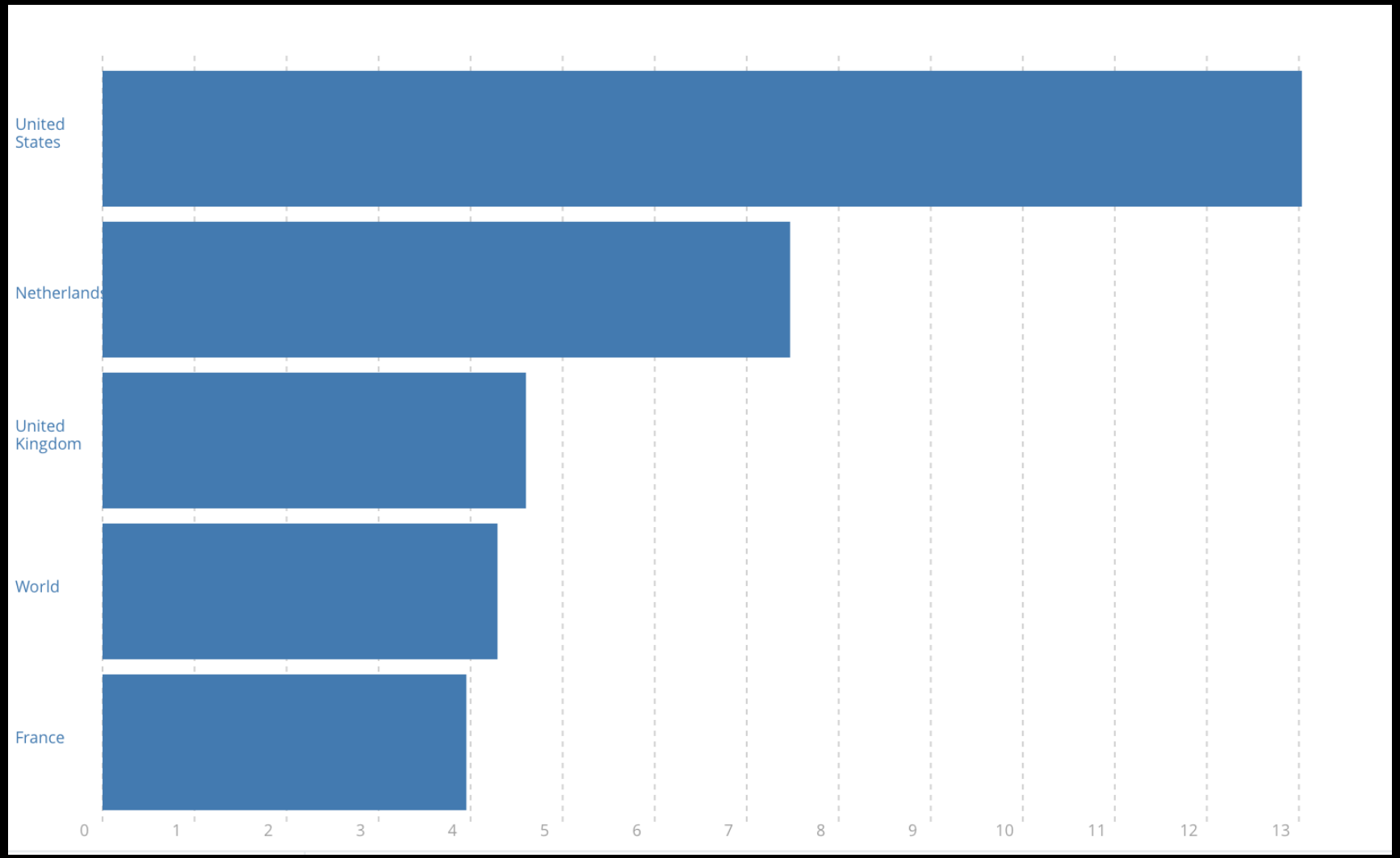
doi: 10.1111/jopp.12030

2. MITIGATION AS EMISSIONS REDUCTIONS

The individual duty to reduce one's carbon footprint



(World Bank 2023)

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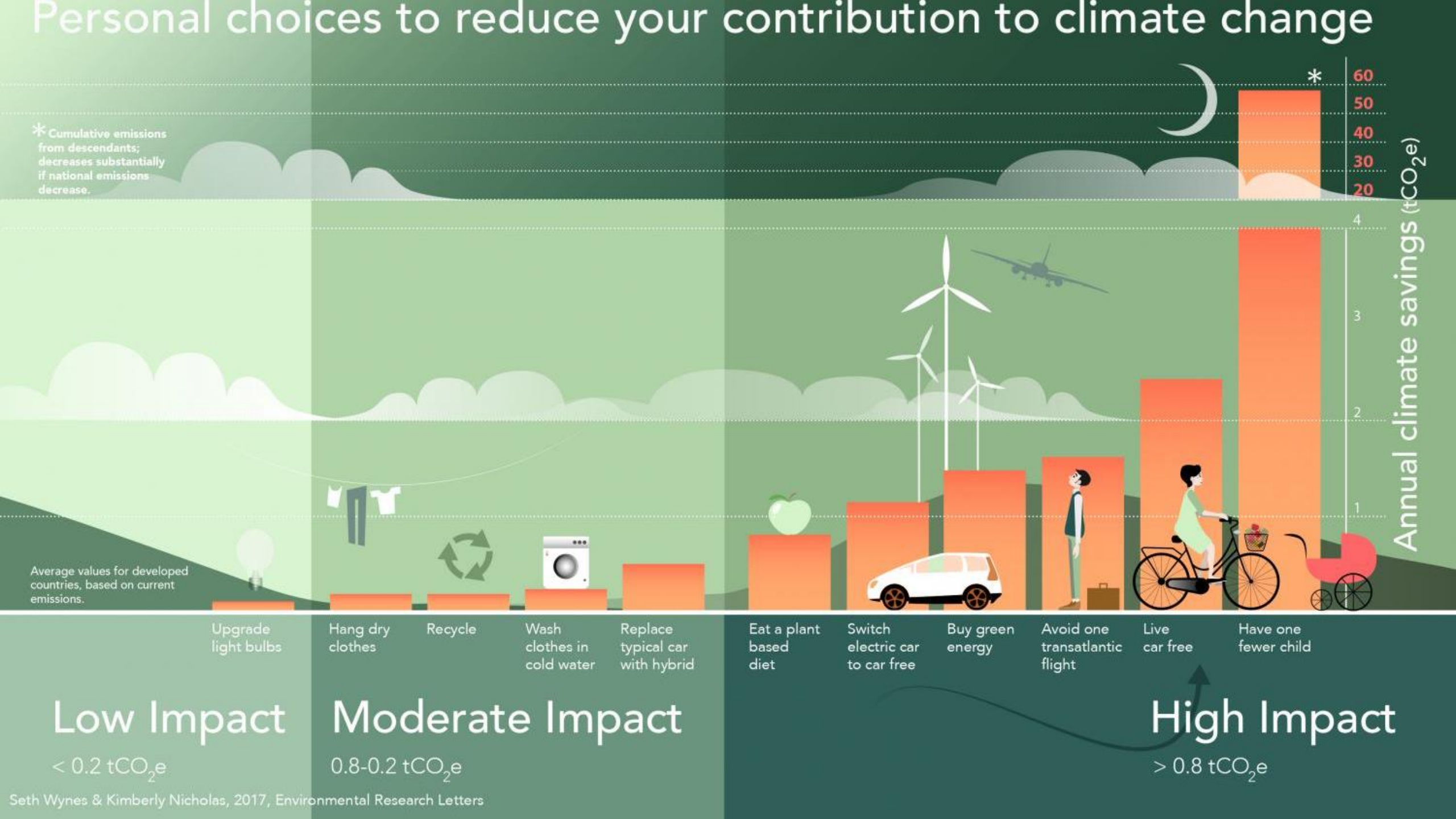
Personal choices to reduce your contribution to climate change



Low Impact

< 0.2 tCO_2e

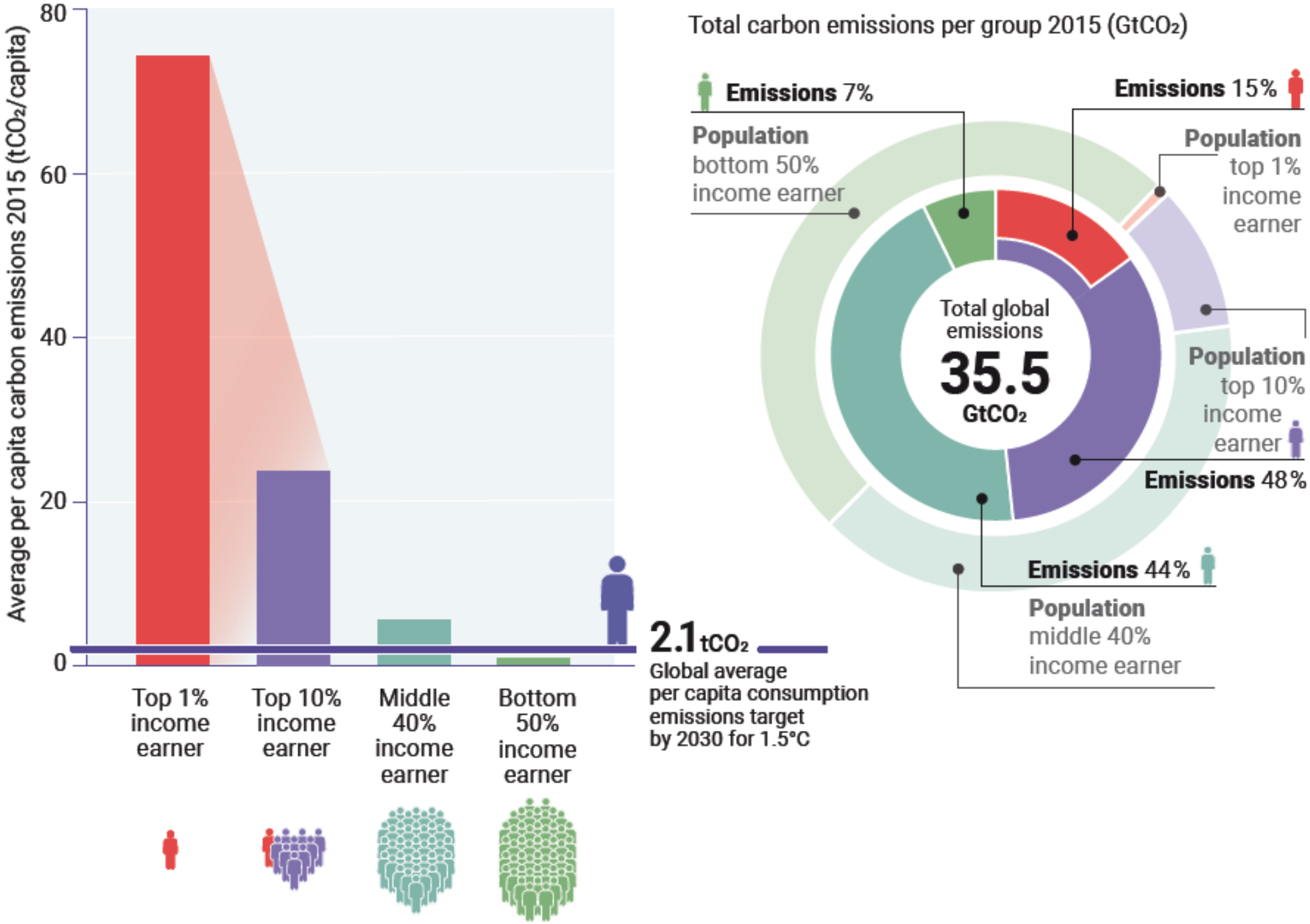
Moderate Impact

0.8-0.2 tCO_2e

High Impact

> 0.8 tCO_2e

Seth Wynes & Kimberly Nicholas, 2017, Environmental Research Letters



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2. MITIGATION AS EMISSIONS REDUCTIONS

The problem of inconsequentialism: since individual emissions do not cause harm in any relevant sense, especially because they are too small to be morally significant, mitigating climate change is not the responsibility of individuals, but of collective agents, especially governments.

- Only the duty to promote and support collective action against climate change can be justified.

J Agric Environ Ethics (2010) 23:167–183
DOI 10.1007/s10806-009-9203-4

ARTICLES

Ethical Theory and the Problem of Inconsequentialism: Why Environmental Ethicists Should be Virtue-Oriented Ethicists

Ronald Sandler

Accepted: 27 July 2009 / Published online: 7 August 2009

Abstract Many environmental problems are longitudinal collective action problems. They arise from the cumulative unintended effects of a vast amount of seemingly insignificant decisions and actions by individuals who are unknown to each other and distant from each other. Such problems are likely to be effectively addressed only by an enormous number of individuals each making a nearly insignificant contribution to resolving them. However, when a person's making such a contribution appears to require sacrifice or costs, the problem of inconsequentialism arises: given that a person's contribution, although needed (albeit not necessary), is nearly inconsequential to addressing the problem and may require some cost from the standpoint of the person's own life, why should the person make the effort, particularly when it is uncertain (or even unlikely) whether others will do so? In this article I argue that justifications for making the effort to respond to longitudinal collective action environmental problems are, on the whole, particularly well supported by virtue-oriented normative theories, on which character traits are evaluated as virtues and vices consequentially or teleologically and actions are evaluated in terms of virtues and vices. If ethical theories are to be assessed on their theoretical and practical adequacy, and if providing a compelling response to the problem of inconsequentialism is an instance of such adequacy, then this is a reason for preferring virtue-oriented ethical theory over non-virtue-oriented ethical theories, such as Kantian, act utilitarian, and global utilitarian theories.

Keywords Virtue-oriented ethics · Utilitarianism · Kantian ethics · Global environmental problems

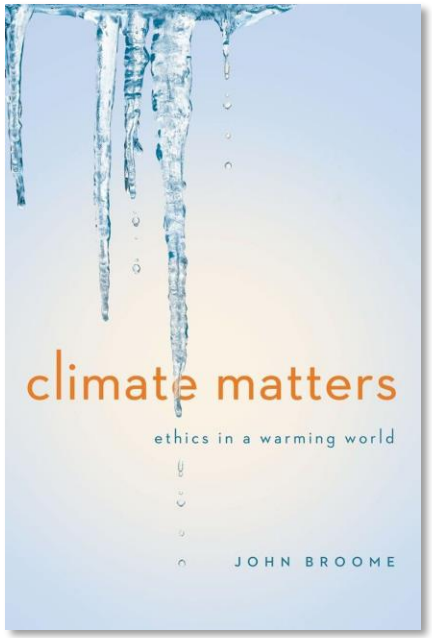
R. Sandler (✉)
Department of Philosophy and Religion, Northeastern University, 371 Holmes Hall, Boston, MA 02115-5000, USA
e-mail: r.sandler@neu.edu

2. MITIGATION AS EMISSIONS REDUCTIONS

Three responses to the problem of inconsequentialism:

1. *Consequentialist approach*: challenging the empirical claim that individual emissions only cause indiscernibly small effects. According to John Broome, the lifetime emissions of a westerner would cause the loss of 6 months of healthy life, or cost between $19,000 and $65,000.

2. *Virtue ethics approach*: integrity requires moral agents to harmonize their values and actions at the collective and the individual levels. A person who is ethically committed to combatting climate change at the collective level should also commit themselves to act on a personal level. Other relevant virtues include temperance, simplicity, and climate sobriety.



JOURNAL ARTICLE

Climate, Collective Action and Individual Ethical Obligations

MARION HOURDEQUIN

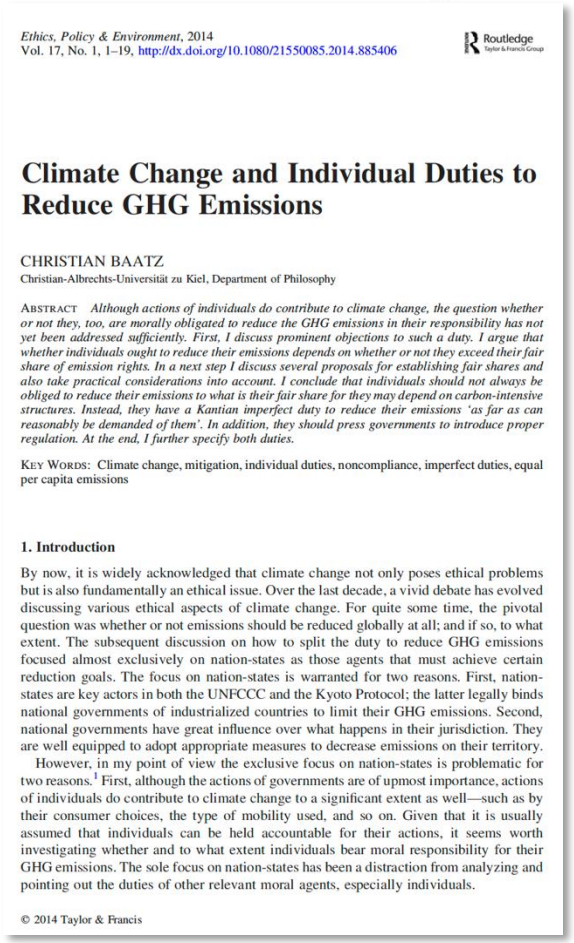
Environmental Values

Vol. 19, No. 4 (November 2010), pp. 443-464 (22 pages)

2. MITIGATION AS EMISSIONS REDUCTIONS

Three responses to the problem of inconsequentialism:

3. *Deontological approach*: regardless of whether individual emissions are harmful or not, we all have a duty to do our fair share in the fight against climate change – an agent's fair share corresponding to the entitlement to a certain share of the overall remaining carbon budget. Individuals emitting more than their entitlement are illegitimately depriving others of part of their fair share. To do their part, most affluent citizens in developed countries should reduce their carbon footprints, especially by stopping easily avoidable high-emitting activities.



Ethics, Policy & Environment, 2014
Vol. 17, No. 1, 1–19, http://dx.doi.org/10.1080/21550085.2014.885406

Routledge
Taylor & Francis Group

Climate Change and Individual Duties to Reduce GHG Emissions

CHRISTIAN BAATZ
Christian-Albrechts-Universität zu Kiel, Department of Philosophy

ABSTRACT *Although actions of individuals do contribute to climate change, the question whether or not they, too, are morally obligated to reduce the GHG emissions in their responsibility has not yet been addressed sufficiently. First, I discuss prominent objections to such a duty. I argue that whether individuals ought to reduce their emissions depends on whether or not they exceed their fair share of emission rights. In a next step I discuss several proposals for establishing fair shares and also take practical considerations into account. I conclude that individuals should not always be obliged to reduce their emissions to what is their fair share for they may depend on carbon-intensive structures. Instead, they have a Kantian imperfect duty to reduce their emissions 'as far as can reasonably be demanded of them'. In addition, they should press governments to introduce proper regulation. At the end, I further specify both duties.*

KEY WORDS: Climate change, mitigation, individual duties, noncompliance, imperfect duties, equal per capita emissions

1. Introduction

By now, it is widely acknowledged that climate change not only poses ethical problems but is also fundamentally an ethical issue. Over the last decade, a vivid debate has evolved discussing various ethical aspects of climate change. For quite some time, the pivotal question was whether or not emissions should be reduced globally at all; and if so, to what extent. The subsequent discussion on how to split the duty to reduce GHG emissions focused almost exclusively on nation-states as those agents that must achieve certain reduction goals. The focus on nation-states is warranted for two reasons. First, nation-states are key actors in both the UNFCCC and the Kyoto Protocol; the latter legally binds national governments of industrialized countries to limit their GHG emissions. Second, national governments have great influence over what happens in their jurisdiction. They are well equipped to adopt appropriate measures to decrease emissions on their territory.

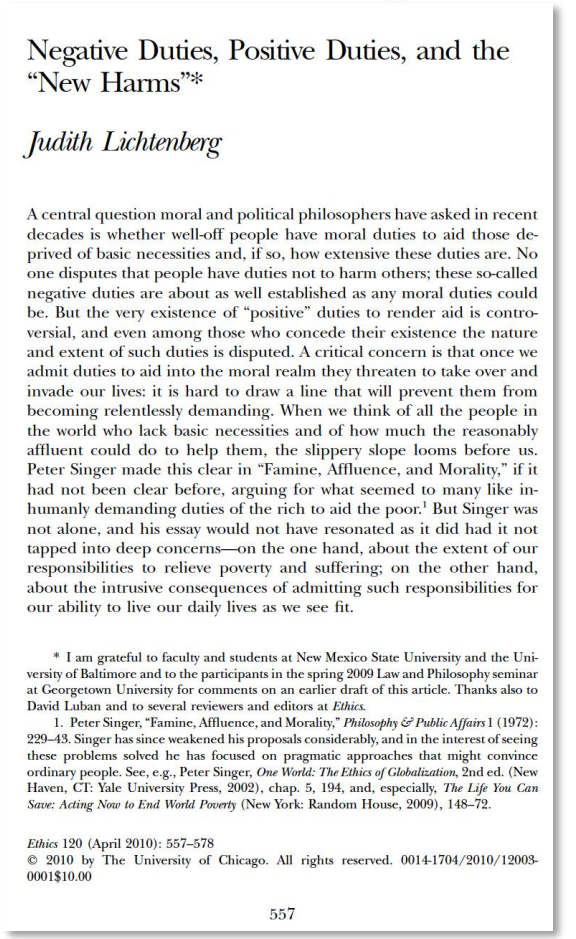
However, in my point of view the exclusive focus on nation-states is problematic for two reasons.[1] First, although the actions of governments are of upmost importance, actions of individuals do contribute to climate change to a significant extent as well—such as by their consumer choices, the type of mobility used, and so on. Given that it is usually assumed that individuals can be held accountable for their actions, it seems worth investigating whether and to what extent individuals bear moral responsibility for their GHG emissions. The sole focus on nation-states has been a distraction from analyzing and pointing out the duties of other relevant moral agents, especially individuals.

2. MITIGATION AS EMISSIONS REDUCTIONS

The problem of overdemandingness: morality cannot require individuals to make very large sacrifices to their well-being, since such requirements infringe on their autonomy and their ability to pursue their life plans.

At what point do individual mitigation duties become too demanding?

1. Duty to promote and support collective action against climate change: with the exception of some extreme cases, such as citizens living in authoritarian regimes that severely sanction criticism of government policy, most individuals can do a lot at relatively little cost to themselves. However, those who have more power to influence other people to change their lifestyles and to push for more ambitious climate policies have a higher degree of responsibility to do so.



Negative Duties, Positive Duties, and the "New Harms"*

Judith Lichtenberg

A central question moral and political philosophers have asked in recent decades is whether well-off people have moral duties to aid those deprived of basic necessities and, if so, how extensive these duties are. No one disputes that people have duties not to harm others; these so-called negative duties are about as well established as any moral duties could be. But the very existence of "positive" duties to render aid is controversial, and even among those who concede their existence the nature and extent of such duties is disputed. A critical concern is that once we admit duties to aid into the moral realm they threaten to take over and invade our lives: it is hard to draw a line that will prevent them from becoming relentlessly demanding. When we think of all the people in the world who lack basic necessities and of how much the reasonably affluent could do to help them, the slippery slope looms before us. Peter Singer made this clear in "Famine, Affluence, and Morality," if it had not been clear before, arguing for what seemed to many like inhumanly demanding duties of the rich to aid the poor.[1] But Singer was not alone, and his essay would not have resonated as it did had it not tapped into deep concerns—on the one hand, about the extent of our responsibilities to relieve poverty and suffering; on the other hand, about the intrusive consequences of admitting such responsibilities for our ability to live our daily lives as we see fit.

* I am grateful to faculty and students at New Mexico State University and the University of Baltimore and to the participants in the spring 2009 Law and Philosophy seminar at Georgetown University for comments on an earlier draft of this article. Thanks also to David Luban and to several reviewers and editors at *Ethics*.

1. Peter Singer, "Famine, Affluence, and Morality," *Philosophy & Public Affairs* 1 (1972): 229–43. Singer has since weakened his proposals considerably, and in the interest of seeing these problems solved he has focused on pragmatic approaches that might convince ordinary people. See, e.g., Peter Singer, *One World: The Ethics of Globalization*, 2nd ed. (New Haven, CT: Yale University Press, 2002), chap. 5, 194, and, especially, *The Life You Can Save: Acting Now to End World Poverty* (New York: Random House, 2009), 148–72.

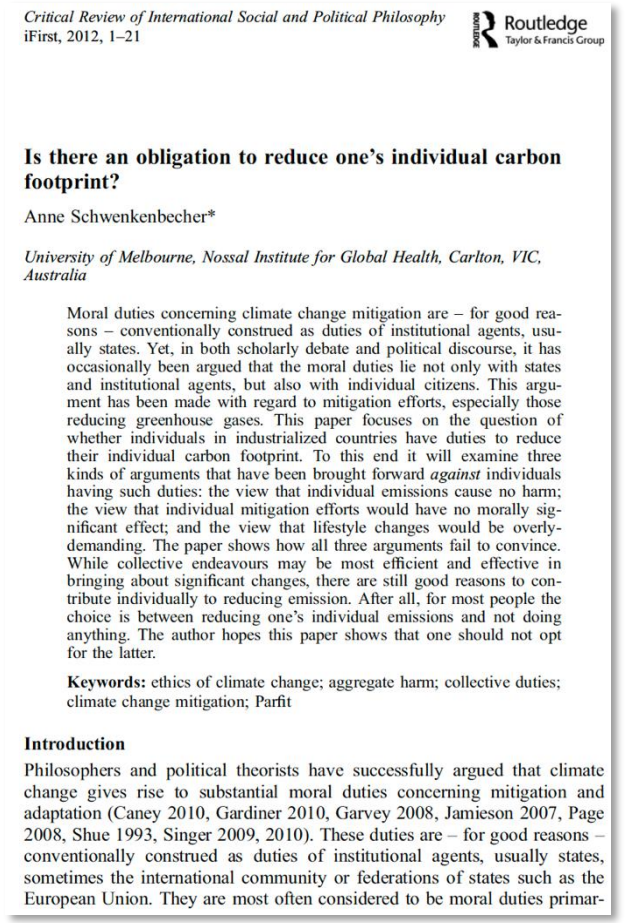
Ethics 120 (April 2010): 557–578

2. MITIGATION AS EMISSIONS REDUCTIONS

2. Duty to reduce one's carbon footprint: the overdemandingness objection is more relevant, as low-carbon lifestyle can be quite demanding in countries with carbon dependent structures.

To ensure that this mitigation duty is not economically, psychologically, or socially too burdensome for individuals, its scope should be limited. The possibilities open to particular agents differ considerably, depending on their respective geographical, economic, and social situation.

At the same time, " [1] being demanding is by itself no reason against a particular moral theory or a particular moral duty… [2] Many actions we can take would merely require us to change our habits, to make a bigger effort and to accept a little more inconvenience" (Schwenkenbecher 2014, p. 180)



Critical Review of International Social and Political Philosophy
iFirst, 2012, 1–21
Routledge
Taylor & Francis Group

Is there an obligation to reduce one's individual carbon footprint?

Anne Schwenkenbecher*

University of Melbourne, Nossal Institute for Global Health, Carlton, VIC, Australia

Moral duties concerning climate change mitigation are – for good reasons – conventionally construed as duties of institutional agents, usually states. Yet, in both scholarly debate and political discourse, it has occasionally been argued that the moral duties lie not only with states and institutional agents, but also with individual citizens. This argument has been made with regard to mitigation efforts, especially those reducing greenhouse gases. This paper focuses on the question of whether individuals in industrialized countries have duties to reduce their individual carbon footprint. To this end it will examine three kinds of arguments that have been brought forward *against* individuals having such duties: the view that individual emissions cause no harm; the view that individual mitigation efforts would have no morally significant effect; and the view that lifestyle changes would be overly-demanding. The paper shows how all three arguments fail to convince. While collective endeavours may be most efficient and effective in bringing about significant changes, there are still good reasons to contribute individually to reducing emission. After all, for most people the choice is between reducing one's individual emissions and not doing anything. The author hopes this paper shows that one should not opt for the latter.

Keywords: ethics of climate change; aggregate harm; collective duties; climate change mitigation; Parfit

Introduction

Philosophers and political theorists have successfully argued that climate change gives rise to substantial moral duties concerning mitigation and adaptation (Caney 2010, Gardiner 2010, Garvey 2008, Jamieson 2007, Page 2008, Shue 1993, Singer 2009, 2010). These duties are – for good reasons – conventionally construed as duties of institutional agents, usually states, sometimes the international community or federations of states such as the European Union. They are most often considered to be moral duties primar-

INTRODUCTION

MITIGATION DUTIES: JUSTIFICATION

MITIGATION DUTIES: REALISATION

TEACHING CLIMATE JUSTICE

TEACHING CLIMATE JUSTICE

One major challenge: dealing with emotions such as eco-anxiety in the classroom

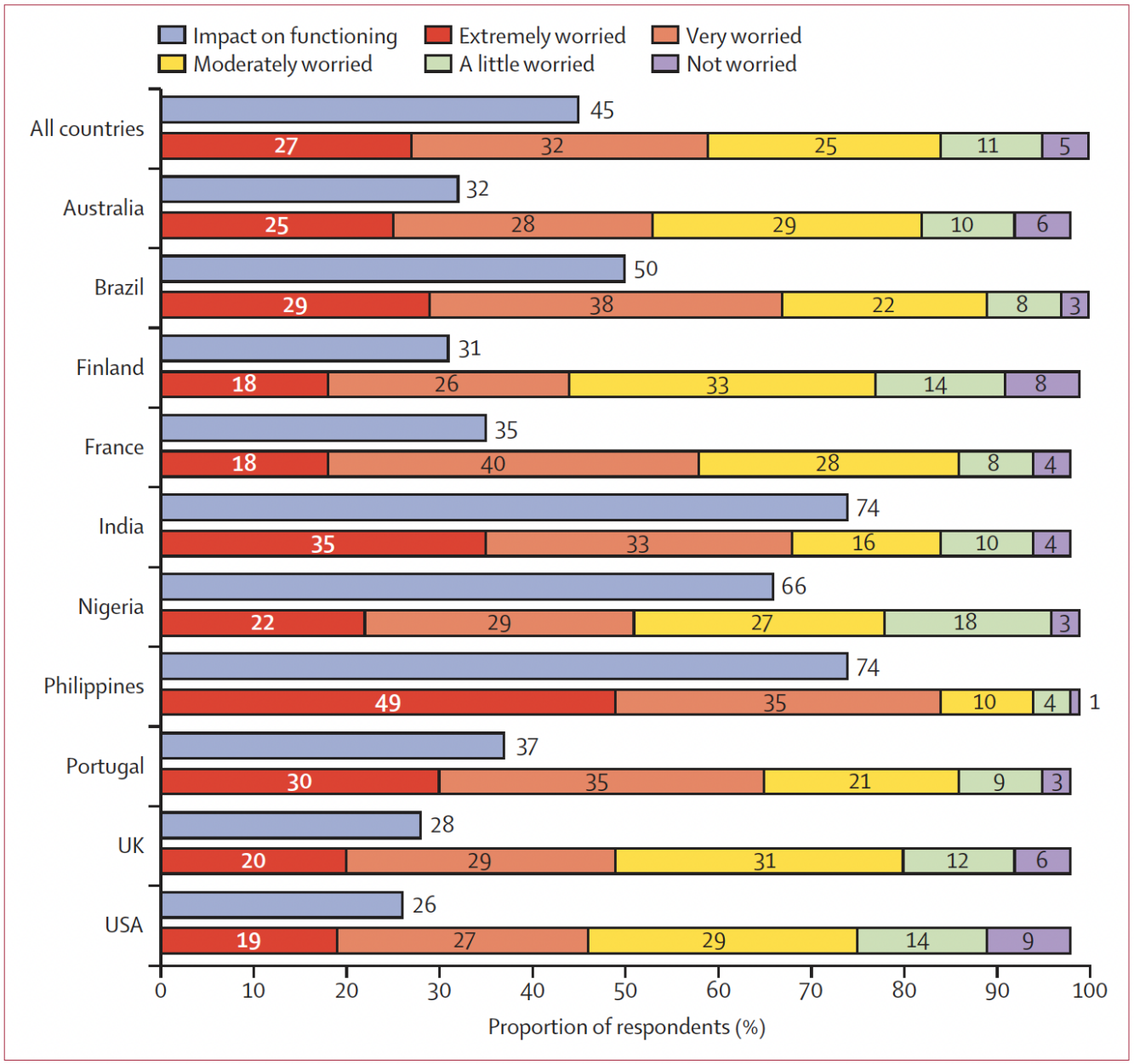
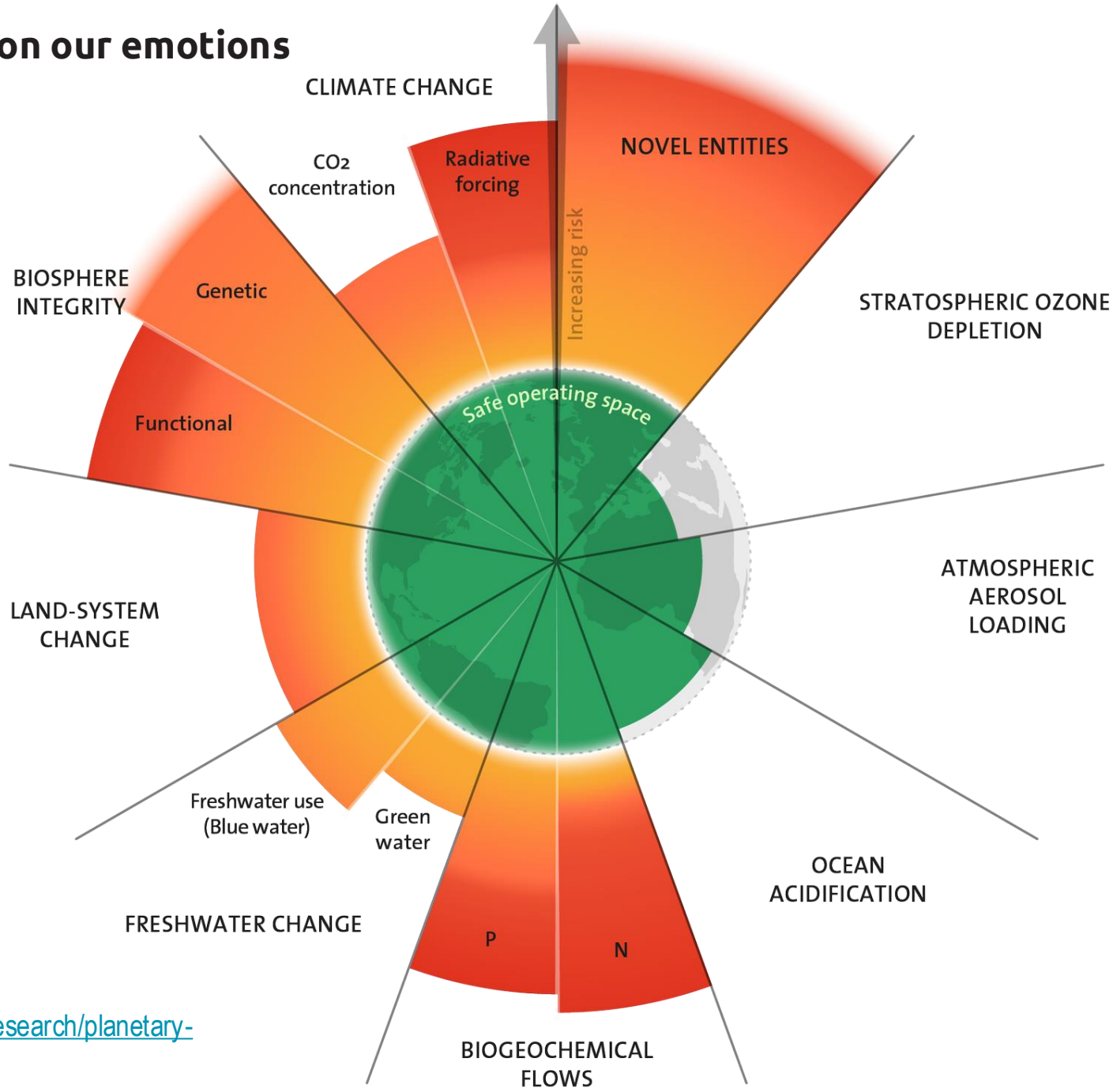


Figure 1: **Worry about climate change and impact on functioning**
The graph shows the proportion of the sample reporting a negative impact on functioning from their feelings about climate change and various levels of worry about climate change. Data are shown for the whole sample (n=10 000) and by country (n=1000 per country)

Step 1: Putting a name on our emotions

Planetary boundaries



(https://www.stockholmresilience.org/research/planetary-boundaries.html, 2024)

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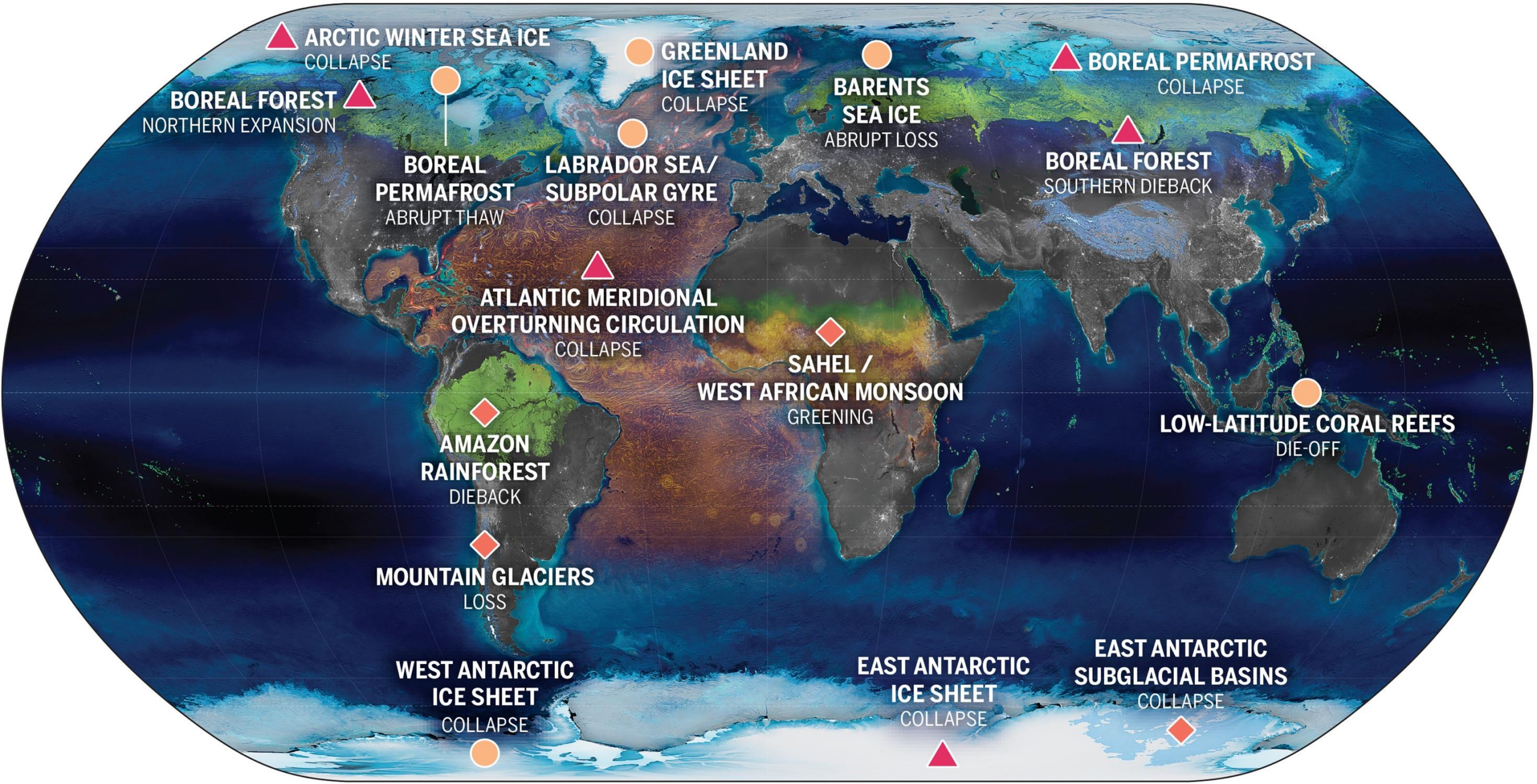
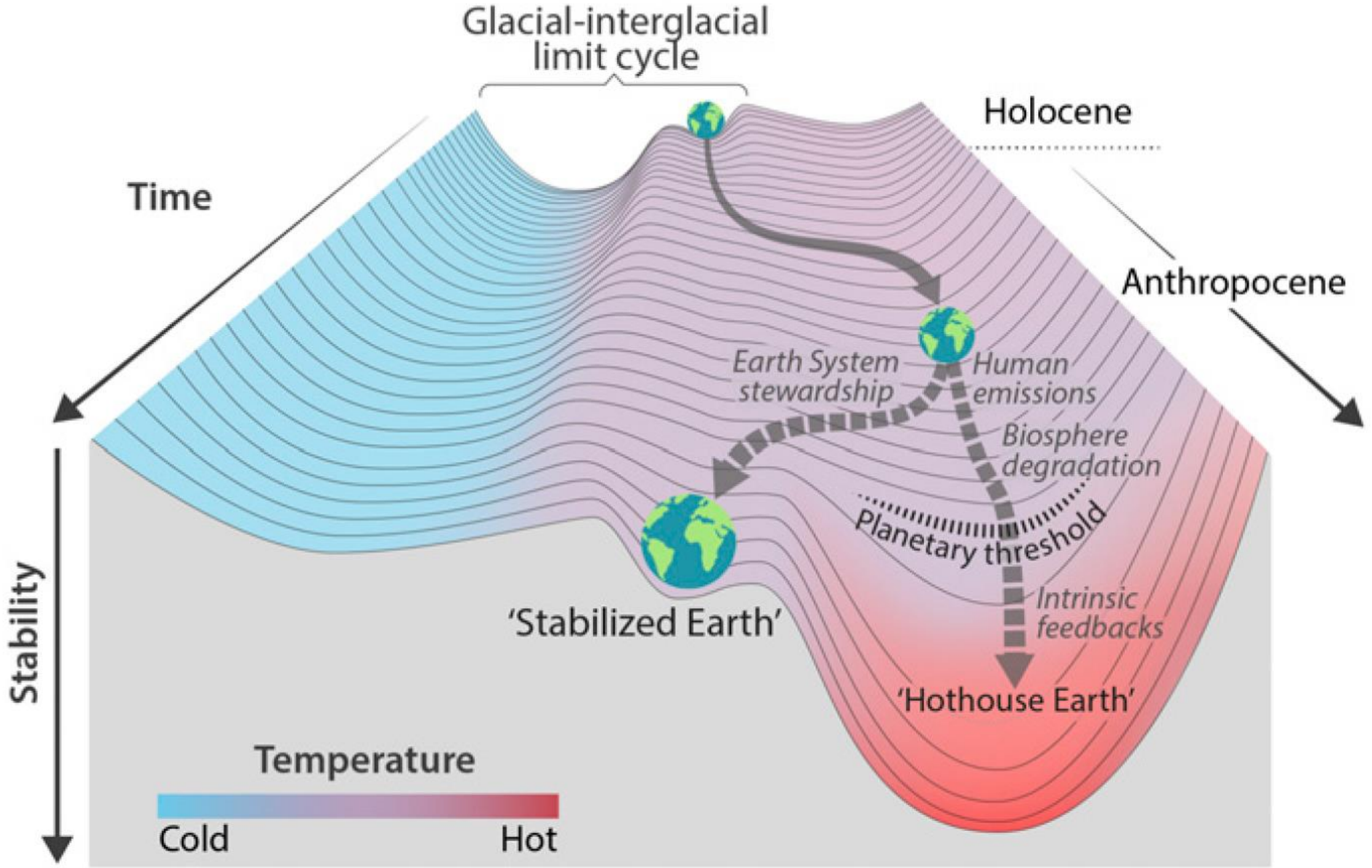


(Armstrong McKay et al. 2022)



(Steffen et al 2018, 8254)

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What kind of emotions do planetary boundaries and tipping points elicit?

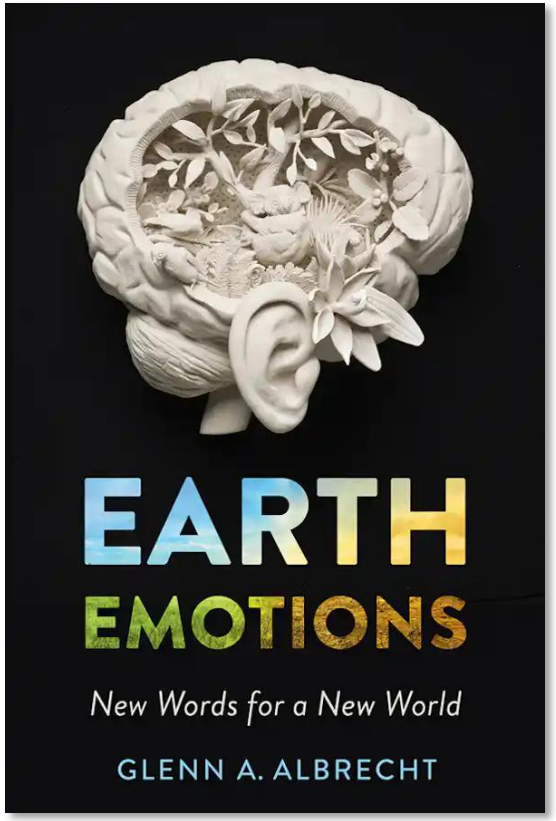
TEACHING CLIMATE JUSTICE

Step 2: defining ecological emotions

*Global environmental changes such as biodiversity loss, climate change, and ocean acidification have a strong **affective dimension**. These affective phenomena include mental states such as feelings, moods, and **emotions**.*

Global environmental changes and emotions are **linked in different ways**:

- **Psychological mechanisms of self-protection, such as denial.**
- **Psychological well-being and health, such as varieties of worry, anxiety, and grief.**
- Moral issues, such as moral emotions of guilt, shame, and anger.
- Behavioural reactions, such as pro-environmental behaviours



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Sadness-related ecological emotions

- **Solastalgia**: “the homesickness you have when you are still at home. (…) Home is becoming more than unrecognizable: it is for many becoming increasingly hostile” (Albrecht 2019: 200).
- **Ecological grief**: “the grief felt in relation to experienced or anticipated ecological losses, including the loss of species, ecosystems, and meaningful landscapes” (Cunsolo and Ellis 2018).
- **Environmental melancholia**: “a condition in which even those who care deeply about the well-being of ecosystems and future generations are paralyzed to translate such concern into action.” (Lertzman 2015: 4)

TEACHING CLIMATE JUSTICE

Threat-related ecological emotions

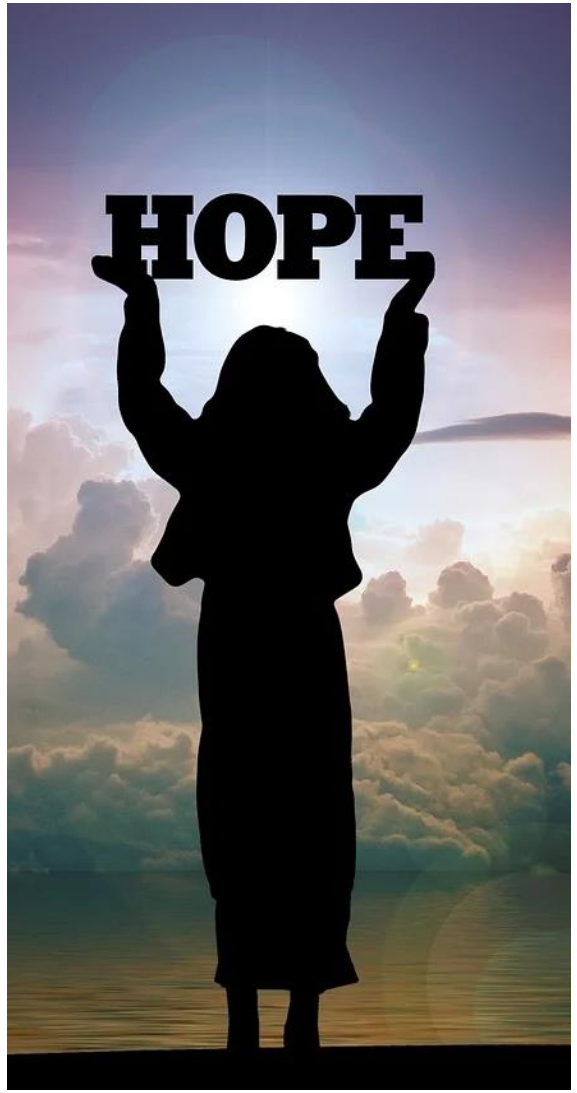
- **Anthropocene horror**: “a sense of horror about the changing environment globally, usually as mediated by news reports and expert predictions, giving a sense of threats that need to be anchored to any particular place, but which are both everywhere and anywhere” (Clark 2020).
- **Global dread**: “the anticipation of an apocalyptic future state of the world that produces a mixture of terror and sadness in the sufferer for those who will exist in such a state” (Albrecht 2019: 199).
- **Ecological/climate anxiety**: “chronic fear of environmental doom” (Clayton et al 2017: 29); “persistent, difficult-to-control apprehensiveness and worry about climate change”(Van Valkengoed, et al. 2023, 258).

TEACHING CLIMATE JUSTICE

The Case for Climate Hope

From the book Politik der Zukunft

Dominic Roser



Step 3: discussing ways to cope with eco-anxiety

1. Hope

- Some climate justice scholars have recently emphasized the value of hope in the climate change discourse by promoting "climate hope" (Shue 2013, McKinnon 2014, Roser 2020).
- Hope applies to an object that is (1) desired, (2) believed to be possible but that remains uncertain, and (3) characterized by a certain mental emphasis that makes the desire and the belief of the hoper significant and stable.
- "I can believe X to have a low probability (condition 2.) but can still desire X (condition 1.) and psychologically rally around X (condition 3.)" (Roser 2020, 68).

➢ Example: hope to keep global temperature below 1.5°C by 2100.

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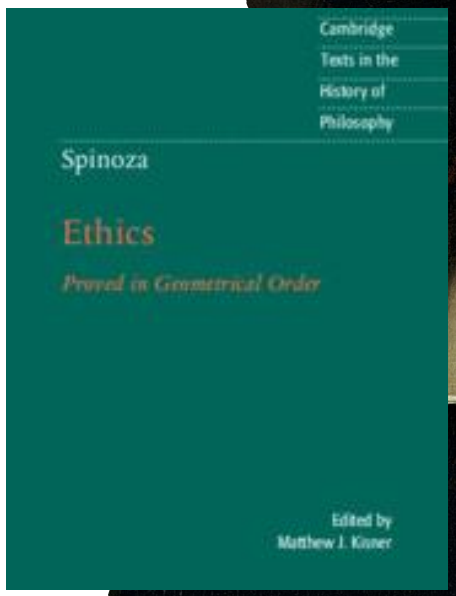
Hope as a double-edged sword

- “Dwelling on the imagined achievement instead of working towards it, hinders rather than spurs action” (Roser 2020, 77)
- “There is no hope without **fear** nor fear without hope.” (Spinoza 2018, III, 50, Scholium, 132)
- “Hope is simply an inconstant joy arising from the image of something in the future or in the past about whose outcome we are in **doubt**.” (Spinoza 2018, III, 18, Scholium 2, 109)



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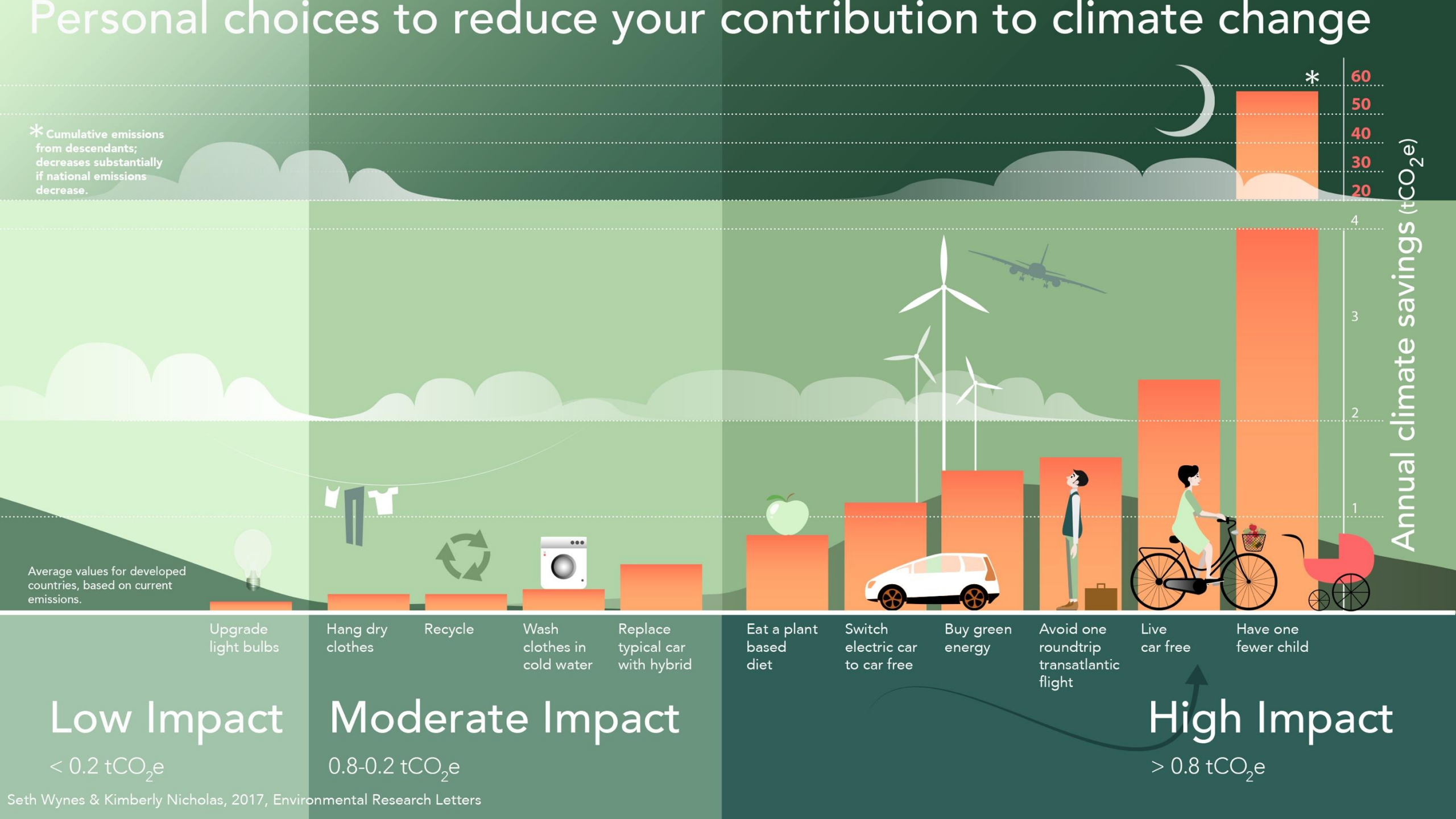
2. Confidence

While hope is a desire for an object we do not have or that does not exist, a desire whose fulfilment remains uncertain, confidence is less about the future than about the present, less about what we do not know than about what we do know, less about what does not depend on us than about what does.

- For example, we can act with confidence to reduce our individual carbon footprint

Personal choices to reduce your contribution to climate change



Low Impact

< 0.2 tCO_2e

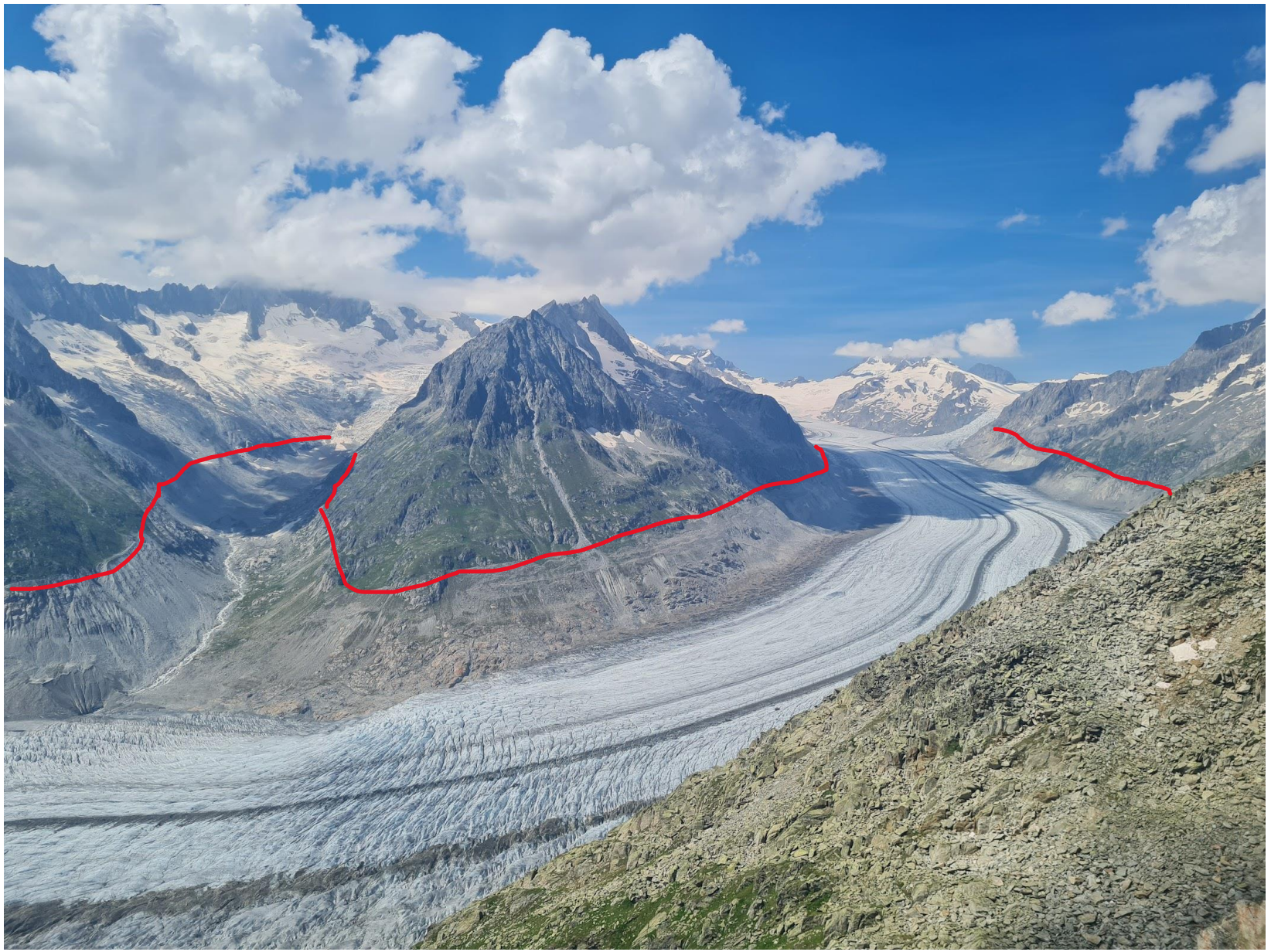
Moderate Impact

0.8-0.2 tCO_2e

High Impact

> 0.8 tCO_2e

Seth Wynes & Kimberly Nicholas, 2017, Environmental Research Letters



Step 4: Classroom activity

Great Aletsch Glacier (Swiss Alps)

- Since the pre-industrial era, the temperature in Switzerland has increased by almost 2°C, twice the global average. At this rate, half of the 1,500 Alpine glaciers, including the Aletsch glacier, will disappear in the next 30 years.
- If nothing is done to rapidly reduce greenhouse gas emissions, all glaciers in Switzerland and Europe risk melting almost completely by the end of the century (source)

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▲ The Aletsch Glacier in 1865 and 2010 Collection Nicolas Crispini, www.n-crispini.com

▲ Collection Nicolas Crispini, www.n-crispini.com

(source)

▲ The Villa Cassel (home to the Pro Natura Aletsch Centre) with the Aletsch Glacier in the background (1912 and 2016) Collection Nicolas Crispini, www.n-crispini.com

(source)

▲ Simon Bradley / swissinfo.ch

Chasing Ice trailer

Environmental Values and Sustainable Transformations Minor

Emotional Impact Statement

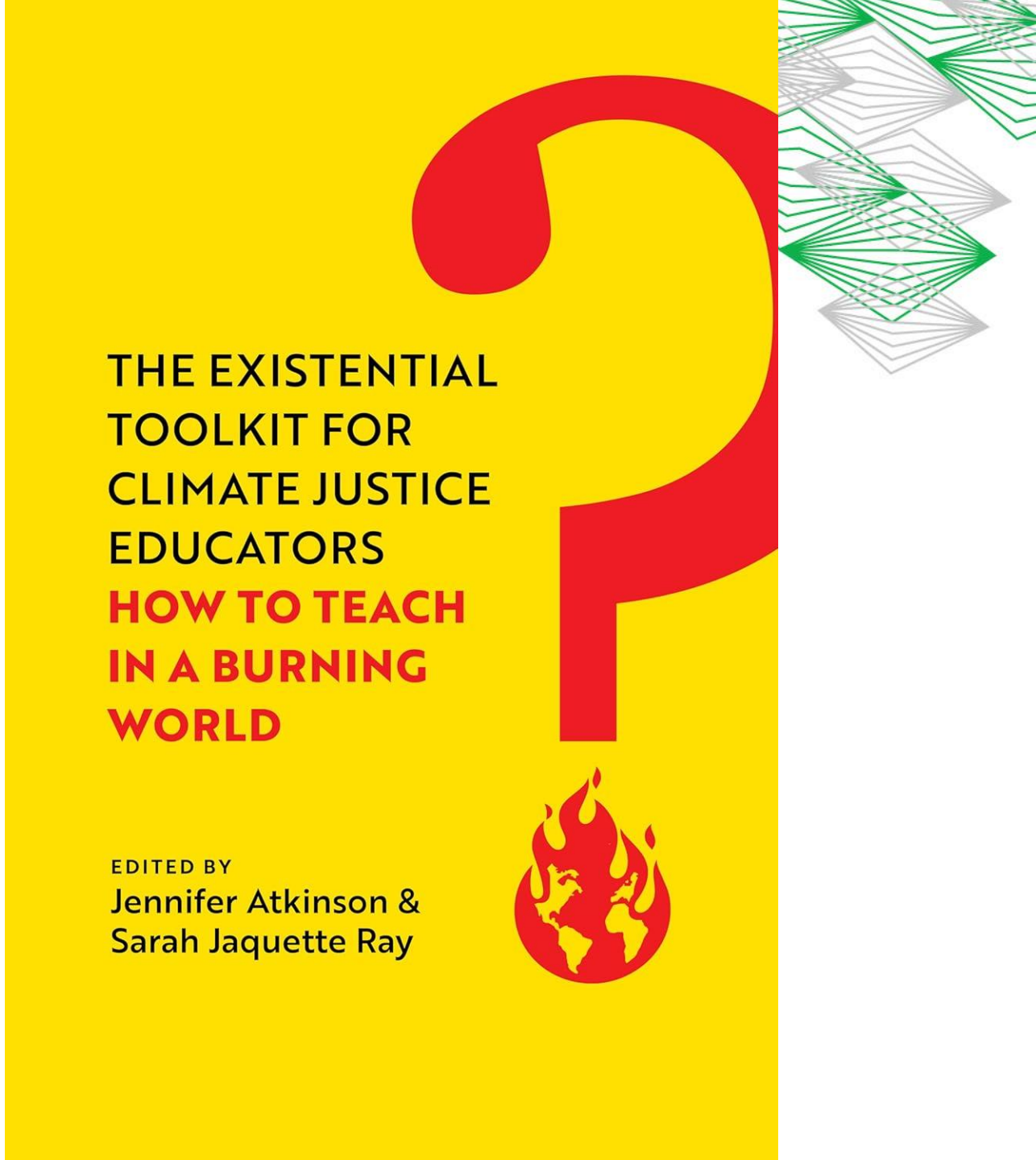
Adapted from Christie M. Manning, "The Emotional Impact Statement", in The Existential Toolkit for Climate Justice Educators: How to Teach in a Burning World?", ed. By Jennifer Atkinson and Sarah Jaquette Ray, Oakland, University of California Press, 2024, pp. 55-58 (https://doi.org/10.2307/jj.14284466.10)

Consider your thoughts, emotions, and behaviour as you witness and read about the various ecological impacts and/or environmental injustices. What are your reactions, and what do you learn about yourself as a result? Write your reflections based on the following guiding questions:

1. **Thoughts**: did you tell yourself: "I already know all this?"; did you question or doubt some of the content of the video? Was your curiosity aroused? Something else?

2. **Emotions**: what emotions were evoked by the viewing of the video? Did you feel angry? Sad? Overwhelmed? Numb and paralysed? Or did it make you feel determined and energised to tackle environmental impacts and injustices? Something else?

3. **Behaviours**: What would you like to do about what you have watched? Distract yourself with the internet, social media, TV? Crawls into a bag of potato chips and open a coke or a beer? Call a friend or family member to share the thoughts and emotions you had? Take individual action against climate change and other environmental issues? Join an activist group in your region? Something else?



THANK YOU FOR YOUR ATTENTION!