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# Climate Change and Future Generations: Fairness, Political Catastrophe, and the Preservation of Just and Stable Institutions Over Time

## Cambiamento climatico e generazioni future: Equità, catastrofe politica e preservazione di istituzioni giuste e stabili nel tempo

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**Abstract**. This paper argues that anthropogenic climate change poses a fundamental threat to the objective conditions of justice and the stability of future political institutions directly and only indirectly to future individuals. In the spirit of Rawlsian theory, it defends a position of *institutional intergenerational sufficientarianism*, which holds that the political institutions in which present generations participate have a duty of justice to prevent future political catastrophes through immediate climate action now. Measures aimed at guaranteeing the objective conditions of justice for future institutions may carry significant distributive and political implications for liberal democracies, especially in terms of socioeconomic costs. Therefore, we advocate for climate policies that address socioeconomic inequalities while strengthening both the inclusiveness and effectiveness of democratic institutions.

**Keywords:** climate justice, institutional intergenerational sufficientarianism, political catastrophe, limits to inequalities, environmental authoritarianism.

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**Riassunto**. Questo articolo sostiene che il cambiamento climatico antropogenico rappresenti una minaccia fondamentale alle condizioni oggettive di giustizia e alla stabilità delle istituzioni politiche future in modo diretto, e solo indirettamente agli individui futuri. Nello spirito della teoria rawlsiana, difende una posizione di sufficientarismo istituzionale intergenerazionale, secondo cui le istituzioni politiche a cui partecipano le generazioni attuali hanno un dovere di giustizia di prevenire future catastrofi politiche attraverso azioni immediate a favore del clima. Le misure volte a garantire le condizioni oggettive di giustizia per le istituzioni future possono avere implicazioni distributive e politiche significative per le democrazie liberali, soprattutto in termini di costi socioeconomici. Pertanto, sosteniamo politiche climatiche che affrontino le disuguaglianze socioeconomiche rafforzando al contempo l'inclusività e l'efficacia delle istituzioni democratiche.

**Parole chiave:** giustizia climatica, sufficientarismo istituzionale intergenerazionale, catastrofe politica, limiti alle disuguaglianze, autoritarismo ambientale.

## 1. Introduction

Anthropogenic climate change (hereafter referred to as climate change) can be considered harmful or unjust for several reasons: it exacerbates global poverty, adversely affects vulnerable populations, contributes to biodiversity loss, increases international insecurity, among other detrimental effects. Nonetheless, it constitutes a particularly grave threat to *future generations*. Despite the consequences of climate change already observable today – for instance, in the increasing frequency of extreme weather events and the rise in sea levels – things can become even worse. As predicted by the IPCC's Sixth Assessment Report (AR6), a rise in the global average temperature of more than 2°C is expected to intensify both the frequency and severity of such phenomena, and an increase beyond 3°C or 4°C may have catastrophic implications for global ecosystems as a whole.[1] Due to this alarming future scenario, in the absence of immediate and extraordinary mitigation and adaptation measures, the exponential impacts of climate change will impose substantial burdens not only on the present younger generation but, above all, on those not yet born – that is, on future, nonoverlapping generations. For this reason, climate change represents one of the most urgent challenges of our time.

Furthermore, one of the most pressing concerns regarding climate change is its potential *irreversibility* in time. All of the most authoritative studies identify 'climate thresholds' or 'tipping points' beyond which the

[1] Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report.*

consequences for the climate system will become irreversible.[2] Despite this alarming situation, according to the AR6, the limited time available to prevent crossing these tipping points is still achievable.[3] It would require, for instance, transformative structural changes across many sectors, including energy, land use, industrial production, and the urban system (mainly in the transport and building sectors).

However, if we, as a political society, want to move toward a radical structural change, it will require costly measures that place an additional burden on those who are alive now, i.e., the present generation. As emphasised by the prominent philosopher, Henry Shue, living citizens are the 'pivotal generation' in the fight against climate change, that is, the last generation who still has time and a real chance to do something to prevent the worst future scenarios.[4] This, in turn, implies that these special burdens imposed on them may be so considerable as to necessitate extraordinary moral and political motivation.[5] Consequently, it is imperative to consider how those climate-related burdens should be fairly distributed among those currently living, and, importantly, how to justify and convince them to accept these crucial burdens.

In this critical scenario, what emerges is a significant challenge to justify and, no less important, to motivate this pivotal generation to respect and freely accept their intra- and intergenerational duties of climate justice. Yet a further complication cannot be overlooked: how to do this within a scenario where greenhouse gas emissions are distributed highly unequally across agents, especially among countries and individuals. According to Chancel et al.'s study, if we consider only the year 2019, the average *per capita* emissions in Sub-Saharan Africa were 1.6 tonnes per person per year, which is just one-quarter of the global average. Yet even this relatively low figure exceeds the sustainable level for limiting warming to 1.5°C by around 50%, and it accounts for about half of the 2°C-compatible per capita emissions budget.[6] At the opposite end of the spectrum, per capita emissions in North America reached 21 tonnes – three times the global average and six times the level compatible with a 2 °C temperature increase.

Furthermore, particular attention must be paid to the impoverishment of populations already at-risk or in poverty due to the effects of climate change and associated mitigation measures. Given that fossil fuels remain the most efficient and economical energy sources for them, this considera-

[2] *Ibid.*
[3] *Ibid.*
[4] Shue, *The Pivotal Generation.*
[5] See *Ibid.*; Gosseries, *What Is Intergenerational Justice?*
[6] Chancel et al., *World Inequality Report 2022*, 119.

tion implies that developing countries should be permitted to have limited greenhouse gas emissions in order to pursue poverty eradication.

Although the literature on climate justice demonstrates a broad consensus on the special burdens that countries in the Global North must bear compared to those in the Global South,[7] the issue of *carbon inequality among individuals* remains relatively underexplored in debate, particularly when the wealthiest individuals are taken into account. A recent Oxfam report notes: 'If everyone emitted carbon at the same rate as the luxury transport emissions of 50 of the world's richest billionaires, the remaining carbon budget would be gone in two days'.[8] Put simply, the report suggests that mitigation policies should be guided by justice criteria that can prevent the exacerbation of existing economic inequalities among single individuals.[9] Although for some, such a position might sound obvious, such distributive concerns have only recently entered the carbon budget debate substantively.[10]

Considering this complex scenario of carbon inequalities, a further dilemma arises concerning the extent to which the urgency and high costs associated with achieving the Nationally Determined Contributions (NDCs) may render the pursuit of intra- and intergenerational fairness as an obstacle to implementing effective climate policies. From this perspective, it is unsurprising that there is growing scepticism towards liberal democracy – mainly characterised by electoral consensus and constitutional constraints – as an effective regime for implementing ambitious mitigation policies and combating climate change in a timely manner.[11] Indeed, some scholars have argued that authoritarian forms of climate governance – or so-called 'environmental authoritarianism' – may be a better, and perhaps the only realistic solution available to us in the short term. Though far from ideal, such arrangements may nonetheless prove instrumentally necessary to avert the crossing of critical temperature thresholds.[12]

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[7] See Shue "Subsistence and Luxury Emissions"; Moellendorf, *The Moral Challenge of Dangerous Climate Change*; Moellendorf, *Mobilizing Hope*; Williges et al., "Fairness Critically".

[8] Oxfam, *Carbon Inequality Kills*, 4.

[9] See Fremstad and Paul, "The Impact of a Carbon Tax on Inequality"; Tank, "The Unfair Burdens Argument Against Carbon Pricing"; Chancel et al., *World Inequality Report 2022*; Corvino, "Why a Uniform Carbon Tax Is Unjust"; Corvino, "What could justify a prohibition on the luxury emissions of the very rich?".

[10] Furthermore, the costs of the climate transition are also distributed unequally across different groups, such as those based on gender and race. They are not only material, but also concern the transformation of individual and group behaviours and preferences, being more burdensome for those who perhaps have a less environmentally friendly lifestyle (see Piroli, "Climate Justice, Recognition, and Pluralism"). Here, we do not have space to address these issues.

[11] Povitkina, "The Limits of Democracy in Tackling Climate Change".

[12] Beeson, "The Coming of Environmental Authoritarianism".

Contrary to an environmental authoritarianism defence, this paper still has faith in the power of liberal democracies and the reasonability of its citizens (in their role of the pivotal generation) to combat climate change and implement mitigation policies to stay within the temperature thresholds agreed upon in the 2015 Paris Agreement – that is why we keep the scope of investigation within the context of liberal democracies. However, to restore the faith in the emancipatory potential of liberal democracies, we argue that the design and implementation of their climate policies must seriously address socioeconomic inequalities among individuals within their own borders. In seriously fighting climate change, and accepting the special burdens that it will imply now for the pivotal generation, liberal democracies can find an 'opportunity' not only to enhance both the inclusiveness and effectiveness of their democratic institutions, but also a powerful justification and, most importantly, motivation for their citizens to join such a challenging task for themselves and for future generations.

In light of John Rawls' considerations, we will argue that an *institutional intergenerational sufficientarianism* defence remains the most realistically normative pathway for justifying intergenerational duties of justice within liberal democracies (Section 2). We will mention at least two reasons. *First*, by directly focusing on future institutions and only indirectly on future people, this position concentrates on the duty of preserving the basic conditions that make possible what Rawls described as the 'basic structure of society' across generations (Section 2.1).[13] *Second*, since climate change constitutes a scientifically proven threat to the objective conditions of justice and the stability of future political systems, it imposes special burdens on the present pivotal generation, making it necessary to undertake ambitious climate action now in order to avert a 'political catastrophe' in the future (Section 2.2).[14] However, in this aspect, two distinguished views have recently been explored to determine whether any distributive constraints are necessary. On the one hand, Darrel Moellendorf's position argues in favour of an *anti-poverty constraint* which holds that ambitious climate policies aimed at reducing emissions must not create or exacerbate existing poverty among agents who are alive now. On the other hand, Ross Mittiga defends a trade-off between efficacy and fairness; or in other words, efficacy now for justice later. In doing so, his position authorises political institutions to take the necessary steps now to ensure the basic conditions of justice in the future, including, if inevitable, relaxing or temporarily suspending strict adherence to specific democratic proce-

[13] Rawls, *A Theory of Justice*.
[14] Mittiga, *Climate Change as Political Catastrophe*.

dures or individual rights and liberties, or accepting inter- and intra-generational unfairness.

After defending institutional intergenerational sufficientarianism as a compelling normative-distributive position for liberal democracies, in the next section we deepen the question of the *threshold* required to sustain just institutions into the future, considering the fact that such action may require an extraordinary level of political will from the present generations (Section 3). We will argue that this motivation ought to be cultivated through distributive policies aimed at addressing socioeconomic inequalities and enhancing both the inclusiveness and effectiveness of democratic institutions.

At the end of the paper, we conclude that the climate transition should not be regarded as a neutral process, but rather as an 'opportunity concept' for liberal democracies (Section 4).[15] That is, it should be presented to the public as an opportunity to construct a *more* just liberal democratic society over time, rather than a less one.

## 2. Institutional intergenerational sufficientarianism: A defence

In this section, we seek a normative justification that can capture what constitutes the wrongness of climate change for future generations. While the literature offers a rich tapestry of intergenerational justice theories – most notably utilitarian, egalitarian, and sufficientarian frameworks – each of these accounts faces significant and well-documented limitations.[16]

With respect to utilitarianism, the principal objection is that it overlooks the distribution of well-being among individual persons and, *mutatis mutandis*, across generations.[17] This aligns with Darrel Moellendorf's critique, which notes that under such a framework, 'the assignment of crippling costs to one generation could be justified for the sake of tiny gains for a large number of other generations over time'.[18] Because few citizens would normally consent to such an asymmetric sacrifice, utilitarian theories face severe limitations in terms of political justification and motivational force at least within the framework of liberal democracies.[19]

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[15] Gosseries, "Nations, Generations, and Climate Justice"; Gosseries, *What Is Intergenerational Justice?*

[16] See Roser and Seidel, *Climate Justice*; Gosseries, *What Is Intergenerational Justice?*

[17] Rawls, *A Theory of Justice*.

[18] Moellendorf, *Mobilizing Hope*, 66.

[19] This intergenerational unfairness aspect is not addressed by endorsing Discounted Utilitarianism, which discounts the weight of future costs and benefits, because the pure time preference advocated is arbitrary and morally indefensible (*Ibid*, 66-67).

To address the distributive indifference of the utilitarian approach, many scholars turn to Egalitarianism as a more viable normative framework. Indeed, egalitarian intergenerational approaches usually identify inequalities in the distribution of burdens and benefits between generations as the principal concern.[20] Although egalitarian frameworks provide a more nuanced distributive lens than utilitarianism, it remains unclear whether such approaches are capable of capturing what is *specifically* wrong with climate change, as opposed to other forms of distributive inequality. In other words, the issue is that climate change does not merely constitute a threat to a fair or egalitarian distribution of resources among and across generations. Instead, it appears to involve a distinct form of injustice – namely, one that pertains to the capacity of current generations to cause, or to fail to prevent, serious harm to future generations.

Where egalitarianism struggles with conceptual breadth, sufficientarianism provides a more targeted baseline for justice. In particular, the central idea of intergenerational sufficientarianism is that the present generation's failure to make serious efforts to combat climate change will inflict damage or harm upon future individuals by placing them below a threshold at which they may be unable to meet their 'basic needs'[21] or enjoy their 'human rights'.[22] Intergenerational sufficientarianism is appealing insofar as it is less demanding of present generations than alternative distributive accounts.[23] However, when grounded in the principles of rescue and non-harm directed towards particular individuals – for instance, because actions or omissions by previous generations threaten the basic needs of future ones – it appears to be vulnerable to both the well-known 'Non-Existent Claimant' and 'Non-Identity Problem' objections. These objections are especially pertinent in the context of climate policy, given that such policies will profoundly affect both the existence and identities of future persons. Nevertheless, both the 'Non-Existent Claimant' and the 'Non-Identity Problem' objections can be addressed, although doing so requires abandoning an approach that relies heavily on the principles of rescue and non-harm directed at particular, identifiable individuals.[24] We conclude that, to be compelling, intergenerational sufficientarianism must adopt an institutional form.

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[20] See Moellendorf and Schaffer, "Equalizing the Intergenerational Burdens of Climate Change"; Gosseries, *What Is Intergenerational Justice?*

[21] Shue, "Subsistence and Luxury Emissions"; Meyer & Pölzler, "Basic Needs and Sufficiency".

[22] Caney, "Human Rights, Responsibilities, and Climate Change".

[23] Williges et al., "Fairness Critically".

[24] See Karnein, "Climate Change and Justice Between Nonoverlapping Generations"; Moellendorf, *Mobilizing Hope*; Hemmerich, "Intergenerational Domination".

In light of the shortcomings inherent in utilitarian, egalitarian, and standard sufficientarian accounts, we defend an alternative – and often overlooked – perspective: *institutional intergenerational sufficientarianism*. We argue that this account presents several key advantages over the preceding approaches. First, it focuses on institutions rather than on future identifiable individuals. In doing so, it more readily avoids Parfit's Non-Identity Problem. Second, it does not require present generations to adopt a supererogatory or altruistic motivation of self-sacrifice for the benefit of future people. Instead, it demands only that today's citizens ensure future generations have sufficient resources to establish just and stable basic institutions. Third, institutional sufficientarianism brings to light one of the gravest risks confronting future generations under conditions of unmitigated climate change: the danger of crossing *political tipping points*, which could lead to irreversible transformations in human cooperation and democratic governance, or, more plainly, a political catastrophe.[25] In such a scenario, future generations may face circumstances in which the objective conditions of justice are so unfavourable that establishing basic social institutions would become extremely difficult, if not altogether impossible.

The theoretical foundations for this institutional approach find their most prominent expression in the work of John Rawls.[26] While we acknowledge that Rawls's account of intergenerational justice may be inadequate to address the *full* range of climate-related challenges – and though we diverge from his position in several key respects – we maintain that certain background assumptions of Rawls's theory of justice provide a valuable foundation for a compelling account of institutional intergenerational sufficientarianism. Most notably, we adopt Rawls's non-monistic view of social justice. Just as Rawls applies distinct distributive principles – the Difference Principle, the Duty of Assistance, and the Savings Principle – to the domestic, international, and intergenerational domains, we do not endorse sufficientarianism as a general ideal of social justice. Rather, our appeal to the sufficientarian approach is strictly limited to the intergenerational sphere, where it functions merely as a simple distributive pattern.[27]

### *2.1. Future institutions, not future identifiable individuals*

As previously outlined, institutional sufficientarianism – unlike person-focused intergenerational sufficientarianism – concentrates directly

[25] See Mittiga, *Climate Change as Political Catastrophe*; McKinnon, *Climate Change and Future Justice*.
[26] Gaspart and Gosseries, "Are Generational Savings Unjust?".
[27] We thank the anonymous reviewer for prompting us to clarify our position.

on future institutions and only indirectly on future individuals. Drawing inspiration from Rawlsian theory, it holds that the appropriate subject of inquiry is the 'basic structure of society'.[28] The configuration of political, social, economic, and familial institutions forms the foundation for stable social cooperation across generations.[29]

However, why should attention be directed towards structural design rather than future individuals? Three principal explanations may be offered. First, the effects of the basic structure on individuals' lives are more pervasive than those of individual actions or voluntary associations. As Freeman explains, the basic structure exerts a profound influence on individuals' character, desires, ambitions, and life prospects.[30] Second, participation in the basic structure is inescapable. While individuals may choose with whom to associate in personal or voluntary contexts, they cannot opt out of the basic structure. From birth to death, all persons are embedded within this structure. As Lewin observes, 'persons can neither freely enter political society from a pre-political life nor leave it for a post-political one'.[31] Even migration to another country does not exempt an individual from membership in some form of basic structure. Third – and no less importantly – the basic structure is more coercive than individual or voluntary relations. The institutions that comprise it collectively possess the legal and political authority to enforce a shared system of rules and to compel strict compliance.

Despite their pervasiveness, inescapability, and coerciveness, Freeman highlights the central rationale behind Rawls's institutional focus: 'basic institutions are necessary to social life'.[32] He explains that, at least in any modern society, 'the distinctive feature of the basic social institutions that constitute the basic structure is that they are, in some form or another, necessary for productive social cooperation and, hence, for the continued existence of any society, particularly any relatively modern one'.[33] A stable cooperative society over time depends upon a basic structure capable of creating and sustaining institutions that support a political constitution, a system of judicial decisions, property rights, family arrangements, and other essential components.

Additionally, the structure of modern societies operates within an intergenerational normative framework. As Karnein explains, '[a] society is not neatly confined to an individual generation. Rather, a 'society

[28] Rawls, *A Theory of Justice*.
[29] Freeman, *Rawls*.
[30] *Ibid.*
[31] Lewin, "Political Conception of Justice", 613.
[32] Freeman, *Rawls*, 102.
[33] *Ibid.*, 102.

is a system of cooperation across time,' and, as such, includes past, present and future members. The institutional framework or basic structure that Rawls has in mind is therefore automatically both intra- as well as intergenerational.'[34] Indeed, Rawls holds that a political society must be conceived as a 'scheme of cooperation over time indefinitely'.[35] This conception opens the way for envisioning social cooperation not only between present and future generations, but also with those of the past. However, the latter is beyond the scope of the present discussion.

Furthermore, we are not concerned here with exploring the possibility of 'direct' cooperation between nonoverlapping generations in a more meaningful or axiological sense.[36] For our purposes, it is sufficient to follow McKinnon in recognising that the decisions made by present generations regarding environmental policies will have long-term consequences, significantly shaping – and potentially determining – the life prospects and political autonomy of future generations.[37] This is exemplified, for instance, by the energy production systems that future generations will inherit, which will have a profound impact on their lives.

Moreover, the reverse relation is also significant: present generations benefit from the anticipated existence of future generations, insofar as many long-term projects and undertakings depend upon the continuation of collective practices. Thus, the mere expectation of future generations serves to motivate current generations to engage in valuable activities and long-term investments.[38]

In light of this, given that society is expected to endure over time, it becomes imperative to adopt institutional measures capable of protecting it from foreseeable threats, among which unmitigated climate change stands as one of the most urgent in the present context.[39] Institutional intergenerational sufficientarianism offers a plausible framework for discharging present generations' obligations towards future generations without imposing disproportionate burdens. Rawls articulates this through the *just savings* principle, which is intended to secure the conditions needed to establish and preserve a just basic structure over time. Once such conditions are fulfilled, net real savings may be justified in declining to zero. While a society may opt to save for reasons unrelated to justice, such deci-

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[34] Karnein, "Rawls and the Future", 273-274.
[35] Rawls, *A Theory of Justice: A Restatement*, 160-162.
[36] See Andina, *A Philosophy for Future Generations*; Scheffler, *Why Worry About Future Generations?*
[37] McKinnon, *Climate Change and Future Justice*.
[38] See Scheffler, *Why Worry About Future Generations?*; Corvino, "Climate Change and the Circumstances of Justice"; Karnein, "Rawls and the Future".
[39] Gardiner, "Rawls and Climate Change".

sions are considered discretionary.[40] The *just savings* principle thus prioritises the maintenance of just institutions for future generations over competing intragenerational distributive claims.[41]

A further question arises as to whether a sufficientarian approach can sustain just and stable institutions across time. Rawls provides three reasons in support of this position. First, future just institutions may persist even in relatively poor societies, provided those societies possess adequate resources. Second, Rawls's principal concern is not the absolute quantity of resources available to future generations, but rather their capacity to exercise political rights and engage in self-governance.[42] Third, rejecting perpetual intergenerational resource transfers is justified by the distinctive character of basic social institutions, which bind individuals within their generation but vary across generations. Consequently, different distributive principles may be appropriately applied to other domains of justice. Institutional sufficientarianism coheres with the demands of intergenerational justice, while a more egalitarian principle may rightly guide intragenerational justice.

### *2.2. Climate change and the risk of future political catastrophe*

Having defended institutional sufficientarianism as a compelling normative position, the next step is to consider the sufficientarian threshold required to sustain just institutions into the future. As with all sufficientarian accounts, the institutional approach confronts the threshold dilemma. If the threshold is set too high, the resulting conception of just and stable institutions risks appearing 'unrealistically utopian',[43] potentially conflicting with the 'legitimate expectations' of citizens in developed countries.[44] Conversely, if the threshold is set too low, it may imply that just institutions can be maintained over time with only minimal effort or commitment.[45] While we acknowledge the existence of this challenge, we contend that it is not insurmountable.

Given that global warming presents potentially catastrophic threats to future generations, there is good reason to believe that, should the minimum threshold of resources necessary to sustain just institutions over time fall below what Rawls terms the 'circumstances of justice', a dramatic

[40] Rawls, *A Theory of Justice: A Restatement*, 159.
[41] Gardiner, "Rawls and Climate Change", 144.
[42] Gosseries, "Nations, Generations and Climate Justice", 98.
[43] Moellendorf, *Mobilizing Hope*.
[44] Meyer and Sanklecha, "How Legitimate Expectations Matter in Climate Justice".
[45] Gardiner, "Rawls and Climate Change".

institutional crisis could ensue.[46] Although these minimal conditions also depend on fundamental axiological dispositions – namely, the willingness to value a just society over time,[47] often referred to as the 'subjective circumstances of justice' – our primary concern lies with the minimal *objective* conditions required to uphold just institutions in the future. In this regard, natural resources, understood in a broad sense, ought to be accorded central importance. It would be mistaken to assume the complete fungibility of natural and artificial material resources, as Rawls arguably does.[48] Accordingly, Rawls's position on the material conditions necessary for future generations to maintain just and stable institutions cannot disregard an environmental context marked by moderate scarcity. On this point, we depart from orthodox interpretations of his *just savings* principle. Under conditions of non-moderate scarcity, the realisation of fair social cooperation among free and equal citizens may become extremely difficult – if not impossible. It follows, then, that today's institutions bear the responsibility of securing conditions of moderate scarcity for future generations, given that climate change poses a direct and serious threat to these objective conditions.

Indeed, the imperative to respect institutional minimum thresholds is closely linked to the necessity of avoiding 'climate tipping points', defined as critical thresholds beyond which irreversible changes to the climate system are triggered. Such changes could render political action ineffective in preventing radical transformations in the Earth's climate. The concept of climate tipping points has been extensively developed, with prominent examples including the Greenland Ice Sheet and the Amazon Rainforest.[49] The transgression of these thresholds could precipitate catastrophic scenarios, such as significant sea-level rise in Asia and widespread desertification in Latin America. Scientific evidence strongly suggests that surpassing these climatic limits will have devastating consequences for both individuals and societies worldwide. Furthermore, once these upper boundaries are crossed, future generations will confront severe and potentially unmanageable conditions, including large-scale human loss and existential threats to humanity itself.[50]

While climate tipping points concern the disruption of natural systems – such as the loss of rainforests, biodiversity, and glaciers – institutional sufficientarianism draws attention to a distinct category of thresh-

[46] Rawls, *A Theory of Justice*.
[47] Scheffler, *Why Worry About Future Generations?*
[48] Gardiner, "Rawls and Climate Change", 127; Mittiga, *Climate Change as Political Catastrophe*, 42.
[49] McKinnon, *Climate Change and Future Justice*.
[50] Posner, *Catastrophe*.

old: socio-political tipping points. These refer to upper institutional limits which, if exceeded, could result in 'irreversible shifts in human cooperation and democratic governance' as presently constituted.[51] The crossing of such thresholds would expose future generations to catastrophic political circumstances. In this context, Darrel Moellendorf and Ross Mittiga have recently advanced what may be termed an anti-catastrophe position within the framework of climate justice.

In opposition to the pessimistic view regarding humanity's capacity to remain below climate tipping points, Darrel Moellendorf advocates for a 'realistic utopia' as a framework for addressing climate change in the present.[52] In Rawlsian terms, this entails a practical yet aspirational vision of a world in which climate change is effectively mitigated while the political rights and stable institutions necessary for future generations are preserved.[53] Although it cannot be guaranteed that climate change will be entirely averted, Moellendorf advances an *anti-catastrophe principle*. According to this principle, if climate policies can prevent a large-scale catastrophe without imposing excessive moral costs on the present generation, they should be implemented. Moellendorf maintains that such moral costs can, for the most part, be avoided if mitigation efforts are guided by his well-known *anti-poverty principle*, which holds that policies aimed at reducing emissions must not obstruct the eradication of poverty.

While catastrophe may assume various forms – such as large-scale disasters resulting in significant human loss or existential threats to humanity – Ross Mittiga focuses specifically on the notion of *political catastrophe.54* He defines this as 'a state of extreme material scarcity, in which one can only meet one's basic needs by denying another (or others) the ability to do the same'.[55] Drawing upon Rawls's account of the objective circumstances of justice, Mittiga argues that under conditions of extreme material scarcity, the realisation of justice becomes exceedingly difficult – if not altogether impossible. Given that credible scientific research anticipates the climate crisis to generate such extreme scarcity, both political institutions and present generations are under a strong moral and political obligation to act with urgency. Their objective must be to avert a scenario in which the establishment of a just basic structure becomes unattainable for future generations.

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[51] Petroni, "Every Climate Struggle Is a Political Struggle", 17.
[52] Moellendorf, *Mobilizing Hope*.
[53] *Ibid*., 184.
[54] Mittiga, *Climate Change as Political Catastrophe*.
[55] *Ibid*., 28.

## 3. The climate transition as a realistic utopia: Inequality, democracy, and political legitimation

Once we have presented the two main features that, in our view, make institutional intergenerational sufficientarianism the most reasonable normative position, in this section, we address the distributive-political implications for present generations. In this regard, we bring into dialogue the accounts of Moellendorf and Mittiga, as they enable us to foreground a key challenge: namely, *how the urgency and high costs associated with mitigating global warming might render the pursuit of ambition and intragenerational fairness an impediment to the implementation of effective climate action in the present*. On the one hand, this challenge might be addressed by adopting less demanding intragenerational sufficientarian criteria – or 'poverty constraints' – in the formulation of climate policies. On the other hand, it might prompt a relaxation of democratic procedures, or even the justification of a certain degree of authoritarianism. In this respect, we argue that the proposals advanced by Moellendorf and Mittiga may be seen as broadly complementary.

Moellendorf advocates for two principles: first, an *anti-poverty principle* as a distributive constraint on Green Transition policies, and second, he appeals to the role of *hope-makers* as a means of addressing the problem of political inaction in the fight against climate change.[56] These two elements together constitute what he terms the *Promethean Anthropocene realistic utopia*, a vision that combines climate mitigation efforts with human development, aspiring to generate the political motivation necessary for a just and effective climate transition.

Conversely, Mittiga's *political anti-catastrophe principle* highlights an inevitable tension between fairness and efficacy in the implementation of climate policies. Under unfavourable conditions – such as the risk of *political catastrophe* for future generations, which jeopardises citizens' safety and security – governments should, he argues, prioritise *foundational legitimacy* over *contingent legitimacy*. Accordingly, if circumstances demand, it may be necessary to relax or temporarily suspend strict adherence to specific democratic procedures or individual rights and liberties.[57] In other words, even within liberal democracies, certain authoritarian forms of climate governance may be regarded as politically legitimate.

By contrast, we argue that ambitious egalitarian criteria of intragenerational justice, alongside the strengthening of substantive democratic

[56] Moellendorf, *Mobilizing Hope*. Concerning the first principle, see also Shue, "Subsistence and Luxury Emissions", and Moellendorf, *The Moral Challenge of Dangerous Climate Change*.
[57] Mittiga, *Climate Change as Political Catastrophe*, 49.

procedures, are indispensable for generating the extraordinary political motivation among current generations that is necessary to achieve effective action in the fight against climate change. We contend that the structural transformations required to implement mitigation and adaptation policies are so extensive and costly – affecting all levels of social relations and fundamentally reshaping habits and ways of life – that they demand, particularly within liberal democracies, broad-based consensus from the citizenry. It is therefore unsurprising that, with increasing frequency, parties and governments expressing scepticism towards climate change and the urgency of the climate transition are gaining electoral support, often fuelled by citizens' anxieties over the social costs and cultural implications of such policies. Let us begin with an examination of Moellendorf's *Promethean Anthropocene realistic utopia*.

### *3.1. Limiting political and economic inequalities as a means of advancing the climate transition*

First, we concur with Moellendorf that the eradication of poverty constitutes a fundamental aspect of fairness and is essential to the realisation of a vision of shared prosperity for all. In this regard, within the current context of global carbon inequalities between countries, his *anti-poverty principle* may be regarded as a fundamental distributive criterion for global justice. It ensures that the climate transition is pursued in tandem with the promotion of human flourishing in poor and developing countries.

Nonetheless, in the context of developed countries, the distributive principle of anti-poverty is not sufficiently fair to motivate most citizens to accept the efforts of the climate transition. This is not to say that poverty is not a problem in these countries (in fact, it is). However, the anti-poverty principle cannot capture the range of distributive conflicts related to the climate transition at the domestic level. We argue that the primary issue is the carbon inequality associated with the current enormous levels of economic inequality between the richest (the so-called 1%) and the vast majority of the population. Some numbers can reveal this point. For example, in the USA, the bottom 50% and the top 1% emit, respectively, 9.7 and 269.3 tCO2e per capita (approximately 27 times more). In European countries, this carbon inequality is minor yet significant; for example, in Germany, France, and Italy, the top 1% emit 19.9, 15.5, and 12.1 times more carbon than the bottom 50%.[58] These data indicate that citizens of developed countries primarily want to know how the costs of the

[58] Chancel et al., *World Inequality Report 2022*.

climate transition will be shared among those above the poverty line, not just that it avoids causing or targeting poverty. In other words, as Reiff correctly observes, 'the problem is that Moellendorf's approach can fairly be described as sufficientarian. That is, it is not really driven by a concern for inequality, but by a concern for the worst off.'[59] Thus, climate mitigation policies should also, and primarily, be guided by fair criteria to avoid exacerbating economic inequality, which is already extremely high.[60] This is not only important as a general criterion of fairness, but also fundamental to gaining popular support for climate policies. A classic example of a policy aimed at reducing emissions but neglecting domestic distributive justice is the notable case of France's 2017 attempt to implement a carbon tax, which taxed everyone at the same rate. However, it was abandoned in 2019 following widespread protests by the Yellow Vest movement. The French experience, as well as the recent (more or less grounded) protests by farmers against the EU and national governments, have demonstrated the importance of a fair distribution of the costs of the transition to avoid social instability and a loss of trust in democratic institutions.

Moellendorf can reply that the anti-poverty principle is only one, and not the only, distributive constraint to climate policies. In fact, he argues that the political program of a just transition should be based on a principle that prescribes that the benefits of climate transition should be broadly shared, benefiting everyone except the vested interests of the fossil fuel industry.[61] However, although a principle of this nature is genuinely egalitarian, it remains highly undetermined. It says nothing about the share of benefits received by the most advantaged compared to those obtained by the least advantaged. In other words, it is insensitive to the size of inequality between the richest and the middle class or the less advantaged.

To be clear, for us, economic inequality matters not for distributive or allocative reasons, but for political or relational ones. In a nutshell, excessive economic inequality affords the wealthiest individuals the greatest leverage, which can be easily converted into political power, thereby violating substantive political equality or, in Rawls' words, the fair value of political liberties. Political power, in turn, reinforces their socioeconomic position and widens the distance between them and those at the bottom of the distribution. This vicious circle generates a drift towards oligarchy or plutocracy.[62] Consider the explicit manifestation of this phenomenon in the political influence exercised by the wealthiest man in the world, Elon

[59] Reiff, "Hope in an Illiberal Age?", 122.
[60] Chancel et al., *World Inequality Report 2022*.
[61] We thank Moellendorf for the reply he provided during his seminar, 'Climate justice and Global poverty' at the University of Catania on April 8, 2024.
[62] Alì, *How Rich Should the 1% Be?*

Musk, on the future government of the United States, to the extent that he can be considered an unelected vice president in office. This phenomenon is also particularly relevant for climate mitigation because the most affluent citizens, especially those involved in economic activities most affected by decarbonisation, possess the economic resources to spread climate denialism in public opinion or slow down and even halt decarbonisation policies through lobbying activities at the legislative and judicial stages. Not surprisingly, Moellendorf is well aware of the current plutocratic tendencies in our liberal democracies.[63] He believes a democratic mass mobilisation is necessary to counteract them. We agree with him, but emphasise that the anti-poverty principle is too limited to garner widespread democratic support for climate action in developed countries. In other words, mobilising hope should also explicitly include a concern for the distance in socioeconomic resources between the richest and average citizens.

Although we have no space to enter into the debate about what distributive principle is the most adequate for this scope, we believe that the candidate can only be a distributive criterion of justice that focuses on the top of the distribution.[64] This view marks a novelty in the field because theories of distributive justice often deal with the bottom of the distribution (see, for example, sufficientarianism, prioritarianism, and even the Difference Principle). The normative point is that a condemnation of excessive wealth concentration and high economic inequality is not pursued to achieve a conception of substantive equality, but precisely to defuse those plutocratic tendencies mentioned by Moellendorf. In this way, we might have 'hope' that ambitious green policies could obtain the support of a large part of the population in rich and developed countries.

### *3.2. A false contraposition: Foundational versus contingent legitimacy and the democratic path to climate transition*

On the side of Mittiga's proposal, we contend that implementing the actions necessary to avoid a future political catastrophe (might) requires prioritising 'precautionary efficacy' over background fairness and democratic processes.

To justify his position, Mittiga distinguishes between two kinds of political legitimacy: 'foundational legitimacy' and 'contingent legitimacy'.[65] The former is a Hobbesian-inspired conception that assigns political insti-

[63] Moellendorf, "Mobilizing Hope Against Pessimism and Plutocracy".
[64] See Robeyns, "Why Limitarianism?"; Alì & Caranti, "How Much Economic Inequality is Fair in Liberal Democracies?"; Alì, *How Rich Should the 1% Be?*; Malleson, *Against Inequality*.
[65] Mittiga, *Climate Change as Political Catastrophe*.

tutions the primary aim of guaranteeing objective conditions for peace and material security. However, Mittiga admits that foundational legitimacy is insufficient in the contemporary world. For this reason, we need to complement it with 'contingent legitimacy', which is grounded on democratic procedures, background fairness in social cooperation, and fundamental individual rights and liberties. However, according to him, in times of crisis and emergency, these two conceptions of legitimacy might clash, and in this case, foundational legitimacy should have priority over contingent legitimacy and, therefore, if necessary, relax or suspend strict adherence to certain democratic processes or individual rights and liberties.[66]

To be fair to Mittiga, he does not deny that fair policies are, in any case, the least effective, but if this is the case, efficacy must have priority over fairness, at least under certain conditions, such as those aimed at preventing political catastrophe. His point is normative rather than practical. However, even from a normative perspective, we argue that Mittiga's distinction between 'foundational legitimacy' and 'contingent legitimacy' is difficult to accept, at least in liberal democracies. Mittiga seems to endorse a significant normative shift in the moral justification between these two types of legitimacy. He assumes that individual fundamental liberties and democratic procedures are the grounds of political legitimacy (contingent ones) only after physical survival and safety are assured. This represents a profound shift in the foundation of morality that cannot be taken for granted. We argue that in liberal democracies, this 'moral shift' has no normative basis. Let us explain our disagreement with Mittiga on this point.

First, it is not true that 'under normal, reasonably favourable conditions, these two modes of legitimation operate in harmony'.[67] If foundational legitimacy matters and has this lexicographic priority, even under 'normal conditions,' we encounter countless cases where individuals' security and safety can be prioritised at the expense of many basic liberties; for example, governments could severely limit freedom of movement, prohibit certain risky individual habits, or give more power of control (beyond the rule of law) to police forces to prevent crimes. In other words, forms of authoritarian government would be legitimate even in ordinary times unless we assume the existence of a strict threshold of individual security and safety above which foundational legitimacy is fully satisfied. Mittiga assumes precisely this sort of threshold. Nevertheless, such a moral threshold introduces a degree of political arbitrariness and opens the door to absolutism. Not coincidentally, constitutional limits and basic individ-

[66] *Ibid.,* 49.
[67] *Ibid.,* 70.

ual liberties are primarily (but not exclusively) considered in our liberal democracies as tools to limit political power.

Mittiga can reply that our reasoning overlooks the fact that, even in democracies with a strong anti-authoritarian tradition, emergency powers that temporarily limit basic individual liberties and ordinary democratic procedures are relatively common, for example, during the recent COVID-19 pandemic. While this is true, assuming that these emergency policies (or at least most of them) are legitimate, their legitimacy does not necessarily stem from fundamental legitimacy. Instead, it appears more accurate to attribute their legitimacy to what Mittiga defines as contingent legitimacy. The reason here is straightforward. Fundamental individual liberties should not be regarded as 'absolute.' If something is normatively characterised as possessing absolute intrinsic value, it should not be subject to regulation by political authority under any circumstances. On the contrary, we can restrict basic rights and liberties as needed to ensure an adequate scheme of basic rights and liberties for all. For instance, this logic is embedded in Rawls's first principle of justice: 'Each person has the same indefeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all'.[68] From this perspective, during the COVID-19 pandemic, the basic right to freedom of movement, ordinarily enjoyed by citizens, posed a capital threat to the basic right to health and bodily integrity, as it significantly increased the spread of the virus. It became necessary to balance the protection and defence of two basic liberties and rights, which were momentarily in sharp conflict.

Similarly, it is unnecessary to invoke fundamental legitimacy to justify Bertolt Brecht's famous statement: '*Grub first, then ethics*'.[69] In conditions of absolute deprivation and poverty, individuals do not lose their ability to distinguish right from wrong. However, under such conditions, it is reasonable to expect many people to struggle to conform to the rules of justice. In other words, they would be unable to subordinate, if necessary, their self-interest—when it becomes a matter of life and death—to reciprocal and general principles. This is precisely why we must avoid a political catastrophe for future generations, as it would create a scenario where even partial compliance with justice is at risk, making it impossible for them to maintain a well-ordered society. Thus, Brecht's sentence does not mean that individual liberties begin to matter and acquire lexicographic priority once individuals reach a threshold of security and safe-

[68] Rawls, *Political Liberalism*, 5.
[69] See Mittiga, *Climate Change as Political Catastrophe*, 59.

ty.[70] Instead, avoiding absolute deprivation and poverty is simply a necessary condition-or a prerequisite-for the minimal exercise of basic liberties, without which they remain hollow shells. For example, this rationale aligns with Rawls's justification for the provision of a social minimum.[71]

In a nutshell, we argue, *in line* with Mittiga, that, at least in liberal democracies, contingent legitimacy is not contingent at all; instead, it functions as the only valid form of fundamental legitimacy. Our view offers two significant advantages.

First, ambitious and effective green policies do not require semi-authoritarian practices but remain confined to democratic procedures and constitutional limits. Second, and more importantly, this approach shows that liberal democracies are entirely compatible with—and not an obstacle to – the implementation of so-called 'emergency' policies, such as those often associated with the climate transition, while simultaneously imposing stringent limits on them.[72] In this sense, many of the green policies Mittiga presents as necessary and non-ordinary are justifiable and legitimate according to the well-understood criteria of contemporary liberal democracies.[73] For instance, governments may legitimately disincentivise intensive carbon activities and restrict or prohibit certain forms of consumption or sociocultural behaviours, such as the intensive use of domestic flights, private aircraft, superyachts, high-emission road vehicles, and overconsumption of meat.[74] For example, in May 2023, the French government abolished domestic flights on routes where train travel is possible within two and a half hours to reduce carbon emissions from aviation.[75] Targeting and justifying climate transition policies as genuinely liberal and democratic is extremely important in terms of effectiveness; there is no need to emphasise that they are so extensive and structural that green policies would be ineffective without a broad public consensus.

Finally, we offer a modest observation of the current political landscape. Political parties and movements most inclined to relax demo-

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[70] In the original version, Rawls seems to assume the non-priority of the first principle below a certain wealth threshold (*A Theory of Justice*, 542). However, this claim was abandoned in the revised edition of *A Theory of Justice* and in *Political Liberalism*, where the priority of liberty gains a revised formulation.

[71] Rawls, *A Theory of Justice*: *A Restatement*, 127-129.

[72] Mittiga also seeks, indeed, to impose limits on his conception of fundamental legitimacy, distinguishing it from environmental authoritarianism (*Climate Change as Political Catastrophe,* 60).

[73] *Ibid.,* 66-68.

[74] See Corvino, "What could justify a prohibition on the luxury emissions of the very rich?"; Piroli, "Climate Justice, Recognition, and Pluralism".

[75] See Bonilla and Ivaldi, "Banning short-haul domestic flights: A preliminary assessment for France".

cratic procedures and constitutional limits, appealing to citizens' (real or perceived) sense of insecurity, are often the same ones that deny climate change or slow down the climate transition. The dilemma, therefore, is not between accepting semi-authoritarianism today (against present generations) and avoiding political catastrophe tomorrow (for future ones). Instead, the unpalatable alternative seems to be authoritarianism today, with political catastrophe looming on the horizon tomorrow.

## 4. Conclusion: Fighting climate change as an opportunity to save the emancipatory potentials of liberal democracies

In this paper, we explore and aim to answer two fundamental questions in the intergenerational justice debate, specifically in the context of climate change. The first question concerns what is unjust about climate change for future generations. In the first section, we defend an institutional intergenerational sufficientarianism approach based on the idea that climate change poses a significant threat to the objective circumstances of justice and, therefore, the stability of future political institutions. Hence, present generations must pursue climate action to avoid a future political catastrophe. Regarding the second question on the distributive and political implications of these actions for present generations, in the second section, we argue that the burdens on present generations may be so high as to require extraordinary political motivation, this should be found (at least in liberal democracy) through ambition distributive policies attacking severe forms of social inequalities in our liberal democracies and worldwide as well as strengthening the inclusiveness and effectiveness of our democratic processes. Following Gosseries, we believe that climate transition should be considered not a neutral, but an 'opportunity concept';[76] that is, climate transition should be presented and justified to public opinion today as an opportunity to achieve a fairer and more democratic society.

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[76] Gosseries, *What Is Intergenerational Justice?*

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**References**

Alì, Nunzio. *How Rich Should the 1% Be? Proportional Justice and Economic Inequality*. New York/London: Routledge, 2022.

Alì, Nunzio, and Luigi Caranti. "How Much Economic Inequality is Fair in Liberal Democracies? The Approach of Proportional Justice." *Philosophy & Social Criticism* 47 (2021): 769-88. https://doi.org/10.1177/0191453720987865.

Andina, Tiziana. *A Philosophy for Future Generations: The Structure and Dynamics of Trans-Generationality*. UK: Bloomsbury Academic, 2022

Beeson, Mark. "The Coming of Environmental Authoritarianism." *Environmental Politics* 19 (2010): 276-94. https://doi.org/10.1080/09644010903576918.

Bonilla Xavier, and Marc Ivaldi. " Banning short-haul domestic flights: A preliminary assessment for France." Working Paper, N. 1482, *The Toulouse School of Economics (TSE)*, October 2023.

Caney, Simon. "Human Rights, Responsibilities, and Climate Change." In *Global Basic Rights*, 227-47. Edited by Charles Beitz and Robert Goodin. New York: Oxford University Press, 2009.

Chancel, Lucas, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman (eds). *World Inequality Report 2022*. Cambridge: Harvard University Press, 2022.

Corvino, Fausto. "Climate Change and the Circumstances of Justice." In *Handbook of Philosophy of Climate Change*, 1065-81. Edited by Gianfranco Pellegrino and Marcello Di Paola. Cham: Springer Nature, 2023.

Corvino, Fausto. "Why a Uniform Carbon Tax Is Unjust, No Matter How the Revenue Is Used, and Should Be Accompanied by a Limitarian Carbon Tax." *Journal of Global Ethics* 20 (2024): 56-76. https://doi.org/10.1080/17449626.2024.2322168.

Corvino, Fausto. "What could justify a prohibition on the luxury emissions of the very rich?" *Politics, Philosophy & Economics*, 24 (2025). https://doi.org/10.1177/1470594X241307048.

Freeman, Samuel. *Rawls.* London: Routledge, 2007.

Fremstad, Anders, and Mark Paul. "The Impact of a Carbon Tax on Inequality." *Ecological Economics* 163 (2019): 88-97. https://doi.org/10.1016/j.ecolecon.2019.04.016.

Gardiner, Stephen. "Rawls and Climate Change: Does Rawlsian Political Philosophy Pass the Global Test?" *Critical Review of International Social and Political Philosophy* 14 (2011): 125-51. https://doi.org/10.1080/13698230.2011.529705.

Gaspart, Frédéric, and Axel Gosseries. "Are Generational Savings Unjust?" *Politics, Philosophy & Economics* 6 (2007)193-217. https://doi.org/10.1177/1470594X07073006.

Gosseries, Axel. *What Is Intergenerational Justice?* UK: Polity Press, 2023

Gosseries, Alex. "Nations, Generations and Climate Justice." *Global Policy* 5 (2014): 96-102. https://doi.org/10.1111/1758-5899.12112.

Hemmerich, Luca. "Intergenerational Domination." *The Journal of Ethics* 29 (2024): 417-42. https://doi.org/10.1007/s10892-024-09498-1.

Intergovernmental Panel on Climate Change. *Climate Change 2023: Synthesis Report.* Edited by H. Lee and J. Romero. Geneva: IPCC, 2023

Karnein, Anja. "Climate Change and Justice Between Nonoverlapping Generations." *Global Justice: Theory, Practice, Rhetoric* 8 (2015): 43-65. https://doi.org/10.21248/gjn.8.2.87.

Karnein, Anja. "Rawls and the Future: On the Possibility of Cooperation Across Time." *Philosophy & Public Affairs* 50 (2022): 271-300. https://doi.org/10.1111/papa.12213.

Lewin, Micah. "Political Conception of Justice." In *The Cambridge Rawls Lexicon*, 612-15. Edited by John Mandle and David Reidy. Cambridge: Cambridge University Press, 2015.

Malleson, Tom. *Against Inequality: The Practical and Ethical Case for Limitarianism.* Oxford: Oxford University Press, 2023.

McKinnon, Catriona. *Climate Change and Future Justice: Precaution, Compensation, and Triage.* London: Routledge, 2012.

Meyer, Lukas H., and Pranay Sanklecha. "How Legitimate Expectations Matter in Climate Justice." *Politics, Philosophy & Economics* 13 (2014): 369-93. https://doi.org/10.1177/1470594X14541522.

Meyer, Lukas, and Thomas Pölzler. "Basic Needs and Sufficiency: The Foundations of Intergenerational Justice." In *The Oxford Handbook of Intergenerational Ethics.* Edited by Stephen Gardiner. Oxford: Oxford University Press, 2022. 10.1093/oxfordhb/9780190881931.013.23.

Mittiga, Ross. *Climate Change as Political Catastrophe: Before Collapse.* Oxford: Oxford University Press, 2024.

Moellendorf, Darrel. *The Moral Challenge of Dangerous Climate Change: Values, Poverty, and Policy.* Cambridge: Cambridge University Press, 2014.

Moellendorf, Darrel. *Mobilizing Hope: Climate Change and Global Poverty.* Oxford: Oxford University Press, 2022.

Moellendorf, Darrel. "Mobilizing Hope Against Pessimism and Plutocracy". *Ethics, Policy & Environment* 27 (2024): 129-45. https://doi.org/10.1080/21550085.2024.2306117.

Moellendorf, Darrel, and Axel Schaffer. "Equalizing the Intergenerational Burdens of Climate Change: An Alternative to Discounted Utilitarianism". *Midwest Studies in Philosophy* 40 (2016): 43-62. https://doi.org/0.1111/misp.12046.

Oxfam. *Carbon Inequality Kills: Why Curbing the Excessive Emissions of an Elite Few Can Create a Sustainable Planet for All.* Oxford: Oxfam International, 2024.

Petroni, Lucas. "Every Climate Struggle Is a Political Struggle: New Trends in Climate Justice." *Brazilian Political Science Review* 19 (2025): 1-32. https://doi.org/10.1590/1981-3821202500020005.

Piroli, Diana. "Climate Justice, Recognition, Pluralism". *Brazilian Political Science Review* 19 (2025): 1-28. https://doi.org/10.1590/1981-3821202500010003.

Posner, Richard. *Catastrophe: Risk and Response.* Oxford: Oxford University Press, 2004.

Povitkina, Maria. "The Limits of Democracy in Tackling Climate Change." *Environmental Politics* 27 (2018): 411-32. https://doi.org/10.1080/09644016.2018.1444723.

Rawls, John. *A Theory of Justice.* Cambridge: Harvard University Press, 1971.

Rawls, John. *Political Liberalism.* New York: Columbia University Press, 1993.

Rawls, John. *A Theory of Justice: A Restatement.* Edited by Erin Kelly. Cambridge: Harvard University Press, 2001.

Reiff, Mark. "Hope in an Illiberal Age?" *Ethics, Policy and Environment* 27 (2024): 1-9. https://doi.org/10.1080/21550085.2024.2306115.

Robeyns, Ingrid. "Why Limitarianism?" *The Journal of Political Philosophy* 30 (2022): 249-70. https://doi.org/10.1111/jopp.12275.

Roser, Dominic, and Christian Seidel. *Climate Justice: An Introduction.* London: Routledge, 2017.

Scheffler, Samuel. *Why Worry About Future Generations?* Oxford: Oxford University Press, 2018.

Shue, Henry. "Subsistence and Luxury Emissions." In *Climate Ethics: Essential Readings*, 200-15. Edited by Stephen Gardiner, Simon Caney, and Dale Jamieson. Oxford: Oxford University Press, 2010.

Shue, Henry. *The Pivotal Generation: Why We Have a Moral Responsibility to Slow Climate Change Right Now.* Princeton: Princeton University Press, 2022

Tank, Lukas. "The Unfair Burdens Argument Against Carbon Pricing." *Journal of Applied Philosophy* 37 (2020): 612-27. https://doi.org/10.1111/japp.12429.

Williges, Katharina, Lukas Meyer, Karl Steininger, and Gottfried Kirchengast. "Fairness Critically Conditions the Carbon Budget Allocation Across Countries." *Global Environmental Change* 74 (2022): 1-20. https://doi.org/10.1016/j.gloenvcha.2022.102481.