Behind the Veil: Climate Migration, Regime Shift, and a New Theory of Justice

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ABSTRACT

Climate change is as much a sociopolitical phenomenon as it is a geophysical one. Beyond contentious domestic politics and the intricacies of global climate governance, evinced by the United Nations Framework Convention on Climate Change ("UNFCCC") and over 25 years of subsequent negotiation, unabated climate change promises to upend centuries-old efforts to bring order and stability to communities across the globe. No one effect of climate change demonstrates that more than the loss of habitability driving climate-induced displacement, migration, and relocation. Though discussed at the periphery of legal and policy discourse (mostly in academia), decision-makers will soon have to confront loss of physical territory and the unviability of many places human communities currently call home. Further, and consistent with so many of climate change's worst impacts, the least responsible for climate upheaval will be subject to the most disruption—whether it is as a migrant or a host of those who have moved. In the United States, indigenous communities are at the frontlines of planned relocation with no comprehensive framework for response or a determination of individual and community rights in the process. To effect security and well-being—a mandate for functioning legal systems—a swift response is critical. Further, most ethical frameworks demand a just *and* equitable *response.*

Few appreciate the enormity of the task. According to estimates based on current UNFCCC state parties' nationally determined contributions and current policies, the globe will likely experience a 3.2° to 3.4° Celsius temperature increase by 2100. This increase would quite literally produce a whole new world. In light of what we do not *know about how climate change will disrupt existing socio-political systems and what we* do not *know about the nature and content of so-called "climate surprises," this Article argues that we are behind a veritable veil of ignorance. In this original position (marked by the current state of nature), a relevant theory of justice is required. Drawing on John Rawls' seminal work, this Article argues that to forge a just society in an endlessly changing climate—and protect and advance the rights of all and particularly the most vulnerable—a deep and concerted inquiry into which structures can support social justice is essential at this time.*

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INTRODUCTION

Climate change is as much a sociopolitical phenomenon as it is a geophysical one. Beyond contentious domestic politics and the intricacies of global climate governance, evinced by the United Nations Framework Convention on Climate Change ("UNFCCC") and over 25 years of subsequent negotiation, unabated climate change promises to upend centuries-old efforts for the legal system to bring order and stability to communities across the globe. Last year (2017) alone saw devastating and serial Atlantic hurricanes, an oppressive heat wave in Europe dubbed Lucifer, and unprecedented wildfires in California.[2] For the first time, scientists are explicitly blaming these extreme events on humans and stating that they are "impossible without

[2] Chris Vaccaro, *Extremely Active 2017 Atlantic Hurricane Season Finally Ends*, NAT'L OCEANIC & ATMOSPHERIC ADMIN., U.S. DEP'T OF COM. (Nov. 30, 2017), http://www.noaa.gov/media-release/extremely-active-2017-atlantic-hurricane-season-finally-ends [https://perma.cc/TCZ5-2R8A]; *Europe Swelters Under a Heat Wave Called 'Lucifer'*, N.Y. TIMES (Aug. 6, 2017), https://www.nytimes.com/2017/08/06/world/europe/europe-heat-wave.html; Holly Yan, *The Wildfires in California Just Keep Shattering Records This Year*, CNN (Dec. 26, 2017,

climate change."[3] Some refer to this as the "new normal,"[4] though "normal" suggests a new yet steady state. But that state is, by definition, elusive. Not only is change occurring now, but the rate of change is also increasing,[5] promising perpetually-shifting baselines. There are inherent uncertainties regarding specific climate change impacts, particularly for impacts that might occur after 2050 and 2100. Nonetheless, given what scientists know about the underlying physics, the complex earth systems affected, and the speed at which climate change is advancing, a comprehensive destabilizing of the status quo might be inevitable even with aggressive action to mitigate and adapt adequately, neither of which appear forthcoming.

This climate destabilization would have significant implications for the law, generally, and the civil and political rights of all of us, particularly the most vulnerable. In the United States, the field of climate justice has been concerned with the most vulnerable, as it explores the intersection of race, poverty, and climate change. Climate justice takes as a basic premise that the disadvantaged in the United States and the global South stand to suffer the risks of warming more severely than others.[6] Growing evidence reveals that climate change will hit two specific groups "disproportionately and unfairly:" the poor and those living in island states.[7] The vulnerability of these groups is based on the kinds of climate changes they will be exposed to as well as their ability—or inability—to protect against shifting weather pat-

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2:57 PM), http://www.cnn.com/2017/12/26/us/2017-california-wildfire-records-trnd/index.html [https://perma.cc/5QQT-4XK3].

[3] *Extreme Weather Explicitly Blamed on Humans for the First Time*, NATURE (Dec. 19, 2017), https://www.nature.com/articles/d41586-017-08808-y [https://perma.cc/7SC4-MZ6S].

[4] *Extreme Weather Events are the New Normal*, NATURE (Aug. 29, 2017), https://www.nature.com/news/extreme-weather-events-are-the-new-normal-1.22516 [https://perma.cc/RG57-X6JV] ("Extreme weather events such as Harvey can be described as 'unprecedented' only so many times before companies and governments are forced to accept that such events are the new normal.").

[5] *See* D.J. Wuebbles et al., *Executive Summary*, *in* U.S. GLOB. CHANGE RES. PROGRAM, 1 CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT 11, 14 (D.J. Wuebbles et al. eds., 2017), *available at* https://science2017.globalchange.gov/downloads/CSSR_Executive_Summary.pdf [https://perma.cc/SX8M-EZ52] ("Forcing due to human activities. . .has become increasingly positive (warming) since about 1870, and has grown at an accelerated rate since about 1970."); *id.* at 33 ("Positive feedbacks (self-reinforcing cycles) within the climate system have the potential to accelerate human-induced climate change and even shift the Earth?s climate system[.]").

[6] Climate justice also recognizes the direct kinship between social inequality and environmental degradation, which is not isolated to the global South. *See generally* Bunyan Bryant & Elaine Hockman, *A Brief Comparison of the Civil Rights Movement and the Environmental Justice Movement*, *in* POWER, JUSTICE, AND THE ENVIRONMENT: A CRITICAL APPRAISAL OF THE ENVIRONMENTAL JUSTICE MOVEMENT 34 (David Naguib Pellow & Robert J. Brulle eds., 2005). The most obvious example is the relatively ubiquitous siting of industrial power plants in environmental justice communities, negatively affecting the public health and welfare of those who live in proximity while greatly contributing to global warming. *See id.*

[7] *Climate Change and the Poor: Adapt or Die*, ECONOMIST, Sept. 11, 2008, http://www.economist.com/node/12208005 [https://perma.cc/JJ4L-A9YT] (estimating the population of these two specific groups to be one billion in 100 countries). *See generally* IPCC, *Climate Change 2007: Impacts, Adaption and Vulnerability*, *in* IPCC FOURTH ASSESSMENT REPORT 7–22 (2007).

terns and acute hydro-meteorological events. In other words, climate change is expected to have a dramatic impact on dryland agriculture, coastal systems, and fisheries, the very systems on which the globe's poorest depend.[8] Further, the poorest of the poor and small islanders lack the resources to defend themselves with, for example, expensive flood controls or sophisticated public health programs.

No one effect of climate change evinces this unprecedented and uneven destabilization more than the loss of habitability that triggers climate-induced displacement, migration, and relocation (hereinafter "climate migration").[9] Decision-makers will soon have to confront the many scenarios of climate migration: acute displacements resulting from storms like Hurricane Maria;[10] the sustained migration spurred by drought and desertification; the relocation of entire communities and peoples that follows loss of physical territory and the unviability of places many have called home for centuries; and more.[11] Each scenario within countries and across international borders

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[8] IPCC, *supra* note 7, at 11–12.

[9] For ease and concision, I use "climate migration" as an umbrella term to describe the many different scenarios in which climate change may trigger the movement of people. Scholars have provided many definitions for the varied types of population movement. In this article, "migration" refers to the movement of persons internally within a state or across an international border. This term encompasses the diversity of triggers, periods of time, and varied types of movement. "Displacement" refers to the movement of persons forced or obliged to flee their places of habitual residence as a result of violence, conflict, violations of human rights, or natural or man-made disasters. *See* INT'L ORG. FOR MIGRATION, KEY MIGRATION TERMS, http://www.iom.int/key-migration-terms#Migration [https://perma.cc/925Y-Y9PG]. "Planned Relocation" refers to the process of persons permanently moving in light of voluntary or forced causes and on small or large-scales. Jane McAdam & Elizabeth Ferris, *Planned Relocations in the Context of Climate Change: Unpacking the Legal and Conceptual Issues*, 4 CAMBRIDGE J. OF INT'L & COMP. L. 137, 139 (2015). For the purposes of this discussion, the term "migration" includes those persons experiencing displacement and planned relocation vis-à-vis small islands. "Managed Retreat," or the "strategic relocation of people or assets or abandonment of land," is a specific type of movement—and significant planning conundrum—that does not fall within the scope of this paper's definition and discussion of migration. *See* STANFORD WOODS INST. FOR THE ENV'T, RESEARCH BRIEF: MANAGED RETREAT IN A CHANGING CLIMATE 1 (Miyuki Hino, Katharine Mach & Chris Field eds., 2017), *available at* https://woods.stanford.edu/sites/default/files/files/Woods_Managed_Retreat_RB-Webfin.pdf [https://perma.cc/F895-4DQP].

[10] Lizette Alvarez, *A Great Migration from Puerto Rico Is Set to Transform Orlando*, N.Y. TIMES (Nov. 17, 2017), https://www.nytimes.com/2017/11/17/us/puerto-ricans-orlando.html?_r=0.

[11] *See* WALTER KÄLIN & NINA SCHREPFER, U.N. HIGH COMM'R FOR REFUGEES, DIV. OF INT'L PROT., PROTECTING PEOPLE CROSSING BORDERS IN THE CONTEXT OF CLIMATE CHANGE: NORMATIVE GAPS AND POSSIBLE APPROACHES, at 13–16, U.N. Doc. PPLA/2012/01 (Legal & Protection Pol'y Res. Ser., 2012), *available at* http://www.unhcr.org/4f33f1729.pdf [https://perma.cc/U6SS-3QX4] (identifying five scenarios in which climate change may trigger population movements: (i) sudden onset disasters, such as flooding or storms; (ii) slow-onset degradation, such as rising sea levels and salinization of freshwater and arable land; (iii) The "special case" of slow-onset *disasters*, specifically the impact of rising seas on low-lying small-island States; (iv) governments prohibiting areas for human habituation as they become high risk, or government sanctioned relocation; and, (v) violence, armed conflict, or unrest over dwindling resources that seriously disturbs public order and triggers migration).

implicates numerous areas of law, from international refugee law to local property rights.[12]

During these events, the least responsible will be exposed to the most disruption—both as migrants and hosts of those who have moved. Small island developing states face a lack of freshwater and the loss of habitable territory.[13] Atoll communities, like the Carteret Islands, have sought higher ground in neighboring islands within Papua New Guinea.[14] In the United States, indigenous communities are at the frontlines of planned relocation[15] without a comprehensive framework for response or a determination of individual and community rights in the process of movement, from the moment of dislocation to resettlement. To effect security and well-being—a mandate for functioning legal systems—a swift response is critical. Further, most ethical frameworks demand that the response is *just* and *equitable*.

Few appreciate the enormity of the task. According to estimates based on current nationally determined contributions to reduce greenhouse gas emissions per the UNFCCC's Paris Agreement,[16] the globe will likely experience a 3.2° to 3.4° Celsius temperature increase by 2100.[17] This increase would trigger geophysical changes that would quite literally produce a whole new world—and without a significant decrease in carbon emissions a greater increase may happen even more quickly.[18] Scientists warn that the rate of carbon emissions has "no-analogue."[19] Climate change and its ripple effects are occurring at an unprecedented speed, and the alternative futures to which we are consigning ourselves range from deeply disruptive to catastrophic. Even if the global community committed to and modelers deployed

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[12] *See* Maxine Burkett, *The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood, and the Post-Climate Era*, 2 CLIMATE L. 345, 348 (2011) (introducing the "post-climate era" in law and society). *See also* Jane McAdam, *Environmental Migration Governance*, *in* GLOBAL MIGRATION GOVERNANCE 153, 157 (Alexander Betts ed., 2009) ("The traditional ways in which law and policy have been divided into 'fields' of inquiry and operation, such as 'human rights', 'trade', 'development' and so on, do not reflect the messy, complex interconnectedness of the issue.").

[13] *See* KÄLIN & SCHREPFER, *supra* note 11, at 5; Burkett, *supra* note 12, at 351–55.

[14] *See* Maxine Burkett, *Lessons from Contemporary Resettlement in the South Pacific*, 68 J. OF INT'L. AFFAIRS 75, 76 (2015).

[15] MAXINE BURKETT, ROBERT R.M. VERCHICK & DAVID FLORES, CTR. FOR PROGRESSIVE REFORM, Reaching Higher Ground: Avenues to Secure and Manage New Land for Communities Displaced by Climate Change 8 (2017), *available at* http://progressivereform.org/articles/ReachingHigherGround_1703.pdf [https://perma.cc/3EXN-L98W].

[16] U.N. Framework Convention on Climate Change, Adoption of the Paris Agreement, U.N. Doc, FCCC/CP/2015/L.9/Rev.1 (Dec. 12, 2015).

[17] Hanna Fekete, et al., *Improvement in Warming Outlook as India and China Move Ahead, but Paris Agreement Gap Still Looms Large*, CLIMATE ACTION TRACKER (Nov. 2017), http://climateactiontracker.org/assets/publications/briefing_papers/CAT_2017-11-15_Improvement-in-warming-outlook.pdf [https://perma.cc/PL5M-UY57]. Worst case predictions based on continued high greenhouse gas emissions growth suggest a 5° Celsius temperature increase by 2081–2100. *See* D.J. Wuebbles et al., *supra* note 5; *see also infra* Section I.A.

[18] Hanna Fekete, et al., *supra* note 17.

[19] Richard E. Zeebe, Andy Ridgwell & James C. Zachos, *Anthropogenic Carbon Release Rate Unprecedented During the Past 66 Million Years*, 9 NATURE GEOSCIENCE 325, 325 (2016).

a specific emissions trajectory, the ability to predict the consequences of climate change with comfortable precision is limited and significantly more difficult after 2100.[20] The future is unknown.

From this position of ignorance, perhaps the one certainty is that our current law and policy infrastructure is not up to the task. As Stephen Humphreys has shrewdly stated, the problem with the law is that "it doesn't quite do what it says on the tin."[21] Our legal systems developed in a relatively stable climate envelope and under the assumption that, while the natural environment was variable, its outer limits were fixed.[22] Specifically, environmental and natural resources law are based on assumptions of ecological stasis and seek to preserve and restore this presumed stasis.[23] Neither of these goals, as Robin Kundis Craig notes, fit in a world marked by continual, unpredictable, and nonlinear transformations of complex ecosystems.[24] Other areas of law are also an ill fit, as climate change affects legal regimes ranging from local land use policy to global energy investment in an unprecedented fashion. Further, the field of international law, and the principles that undergird it, developed during a period of rapid wealth acquisition in the West when numerous groups did not enjoy the full promises of liberty and justice. These groups have not had a voice in shaping international law principles, both at its development and continuing today.[25] Historic injustices of colonialism, structural racism, and obstinate poverty now commingle with a bleak and uneven climate forecast.[26] The enduring inability to meet the chal-

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[20] *See* K. Hayhoe et al., *Climate Models, Scenarios, and Projections*, *in* U.S. GLOB. CHANGE RES. PROGRAM, *supra* note 5 at 133, 134, *available at* https://science2017.globalchange.gov/downloads/CSSR_Ch4_Climate_Models_Scenarios_Projections.pdf [https://perma.cc/XVB8-PV3U].

[21] Stephen Humphreys, *Climate Justice: The Claim of the Past*, 5 J. OF HUM. R. & ENV'T 134, 142 (2014).

[22] *See, e.g.*, Robin Kundis Craig, *"Stationarity is Dead"–Long Live Transformation: Five Principles for Climate Change Adaptation Law*, 34 HARV. ENVTL. L. REV. 10, 27 (2010) (quoting TED NORDHAUS & MICHAEL SHELLENBERGER, BREAK THROUGH: FROM THE DEATH OF ENVIRONMENTALISM TO THE POLITICS OF POSSIBILITY 8 (2007)) ("To describe these challenges as problems of pollution is to stretch the meaning of the word beyond recognition. Global warming is as different from smog in Los Angeles as nuclear war is from gang violence. The ecological crises we face are more global, complex, and tied to the basic functioning of the economy than were the problems environmentalism was created to address forty years ago. Global warming threatens human civilization so fundamentally that it cannot be understood as a straightforward pollution problem but instead as an existential one. Its impacts will be so enormous that it is better understood as a problem of evolution, not pollution.")

[23] *See, e.g.*, Craig, *supra* note 22, at 27; J. B. Ruhl, *Climate Change Adaptation and the Structural Transformation of Environmental Law*, 40 ENVTL. L. 363, 365–66 (2010).

[24] Craig, *supra* note 22, at 27.

[25] In the context of international environmental law, see, e.g., Sumudu Attapattu & Carmen G. Gonzalez, *The North-South Divide in International Environmental Law: Framing the Issues*, *in* INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH (Shawkat Alam et al. eds., 2015).

[26] *See, e.g.*, Humphreys, *supra* note 21, at 142; Anna Grear, *Towards 'Climate Justice'? A Critical Reflection an Legal Subjectivity And Climate Injustice: Warning Signals, Patterned Hierarchies, Directions for Future Law and Policy*, 5 J. OF HUM. RTS. & ENV'T. 103, 103–33 (2014).

lenges of inequity that climate change exacerbates;[27] the climate surprises that are anticipated but currently unknowable; and the anemic (if not aggressively inadequate) responses to the climate crisis at this time altogether require serious engagement in crafting an adequate theory of justice.

In light of what we *do not* know about how climate change will disrupt existing socio-political systems and what we *do not* know about the nature and content of climate surprises,[28] the global community finds itself in the closest facsimile to the storied thought experiment: we are in reality behind a "veil of ignorance." As explicated in *A Theory of Justice*, which John Rawls published over 40 years ago and which builds on centuries old philosophical deliberation, a fictional veil is employed to better ensure that parties who are crafting a new theory of justice do so without information that would bias the outcome. Behind the veil, one lacks knowledge of one's own particular place in society, specific assets, abilities or strengths. The veil, elaborated in the 1970s, remains evocative and strikingly relevant today. Given the current state of nature and the uncertainty inherent in projected changes,[29] a relevant and durable theory of justice could ideally arise from good faith efforts to reform our law and policy infrastructure.

Evoking Rawls' seminal work, this article seeks to galvanize scholars and decision-makers to begin forging that critical and transformative theory. The article intentionally adopts Rawls' general construction of the veil of ignorance and a similar notion of the original position—particularly its iterative nature.[30] It seeks, however, to persuade those willing to engage in the justice-seeking exercise to utilize parameters and assumptions that are distinct from those set by Rawls, who relies heavily on rationalism.[31] This article embraces exiled rights discourses—from critical theory to indigenous legal orders to Earth Jurisprudence[32]—that might meet the challenge of

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[27] *See infra* Part II.

[28] *See* R.E. Kopp et al., *Potential Surprises: Compound Extremes and Tipping Elements*, *in* U.S. GLOB. CHANGE RES. PROGRAM, *supra* note 5, at 411, 412, *available at* https://science2017.globalchange.gov/downloads/CSSR_Ch15_Potential_Surprises.pdf, https://perma.cc/2AV8-J59Q.

[29] Hayhoe et al., *supra* note 20, at 149.

[30] *See* JOHN RAWLS, A THEORY OF JUSTICE 17 (Harv. U. Press, rev. ed. 1971) (hereinafter RAWLS, 1971 ed.) ("At any time we can enter the original position, so to speak, simply by following a certain procedure, namely, by arguing for principles of justice in accordance with these restrictions [on certain knowledge].").

[31] *See id.* at 10. For a critique of Rawls' reliance on rationalism, see, e.g. AMARTYA SEN, THE IDEA OF JUSTICE (Harv. U. Press 2009); ROSEMARY LYSTER, CLIMATE JUSTICE & DISASTER LAW (Cambridge U. Press 2015). For a critique of rationalism's particularly negative effect on efforts to achieve climate justice, see Grear, *supra* note 26, at 102–33.

[32] *See infra* Section IV.C. Earth Jurisprudence is a field of law that seeks to give greater consideration to nature by "recognizing the interconnectedness of Earth's natural systems, the inherent rights and value of nature, and the dependence of humanity on all living beings on a healthy Earth." *See, e.g.*, CTR. FOR EARTH JURIS., http://www.earthjurist.org [https://perma.cc/UP25-6QTE] (last visited Feb. 3, 2018); *Principles of Environmental Justice*, FIRST NAT'L PEOPLE OF COLOR ENVL. LEADERSHIP SUMMIT (Oct. 1991), https://www.ejnet.org/ej/principles.html [https://perma.cc/5HKE-2VT2].

righting historical injustices while setting us on the course to construct a society that is intimately aware of its ecological limits.

This Article concludes that effecting a just society—one that ensures the rights of all and particularly the most vulnerable—in an endlessly changing climate demands a deep and concerted inquiry into which theories and structures can support social justice and civil liberties over time. A full recitation of this theory of justice and the undergirding principles are beyond the scope of this article. The article does suggest, however, that other, well-articulated philosophies or paradigms hint at what that organizing theory might be. Some critics might suggest that successfully introducing these processes and paradigms is infeasible, especially given the current political climate. It is, however, much easier to do than navigate the alternative: a future in which we shelter in a dated and flawed legal architecture as we attempt to weather 21st century superstorms.

The article proceeds as follows. Part I teases out the assertion that climate change is as much a geo*sociopolitical* phenomenon as it is a geo*physical* one. It also describes the way in which climate change's disproportionate impacts negatively affect indigenous communities, the poor, and people of color. This is the fodder for climate justice scholars, who have not only illuminated disproportionate impacts but have also provided sophisticated analyses of the historical arc of contemporary climate vulnerability and law's complicity in effectuating them.[33]

Part II delves into the challenges climate migration presents to the law and argues that they demonstrate climate impacts' broader threat to the foundations of our jurisprudence. The breadth of laws implicated in climate migration scenarios is notable and unwieldy. Further, phenomena like the potential total loss of habitability present novel legal questions that have so far yielded a cacophony of inconclusive responses.[34] Climate migration also places the law's unfinished work—its inability to correct inequities initiated by colonialism and perpetuated by neoliberalism—in sharp relief.

Part III explores the no-analogue future and its implication for lawmaking, specifically environmental law. Borrowing from ecology, this section explores climate change as a regime or state shift for our global ecosystems as well as our current Westphalian system of global organization. At present, climate change is primarily in the legal domain of international and domestic environmental law. These singular, atomized areas of law cannot comprehensively address the crosscutting effects of higher temperatures, rising seas, fiercer storms, and increasing wildfires on local to global decision-making. A regime shift for extant socio-legal structures may be the only appropriate response. Part III concludes with an explication of the non-hypothetical state

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[33] *See, e.g.*, Grear, *supra* note 26, at 102–33; Humphreys, *supra* note 21, at 136. *See generally* Carmen Gonzalez, *Global Justice in the Anthropocene*, *in* ENVIRONMENTAL LAW AND GOVERNANCE FOR THE ANTHROPOCENE 223 (Louis J. Kotze, ed., 2017).

[34] *See e.g.*, Burkett, *supra* note 14.

of nature, a point at which the complete lack of clarity regarding the state of the future requires a reflective process, one that is not only timely but compulsory.

Part IV suggests theoretical frameworks that might produce a durable theory of justice in an endlessly shifting climate regime. It does not seek to answer a fraction of the questions that might arise. It does seek to forward a notion, deemed radical by some, that rethinking our relationship with nature and the ecological bottom-line are foundational principles for this new theory of justice. One of the most compelling popular refrains in the lead up to the Paris Agreement was this: the efforts to arrest global warming are not a defense *of* nature, but an expression of nature defending itself.[35] This base ethos, which seeks not to "other" people nor the environment is echoed across ethical frameworks, moral philosophy, and even pockets of the legal academy—across cultures and over time. It satisfies the justice-seeking orientation of climate justice scholars who understand that legal principles and structures that sanction a political economy consistently acting beyond the limits of ecology (as well as the limits of equality and civil liberties) are intimately related and ultimately unviable.

I. The Geophysics and Geosociopolitics of Climate Change

A. *Climate Change as Physics and Politics*

Through regularly published reports, the authoritative sources of climate change science detail the profound impacts of our carbon-based political economy on the global environment. The reports not only tell the story of the current and future geophysical impacts of climate change but also reveal the geo*sociopolitics* behind certain actors' access to and use of power.[36] Each time the Intergovernmental Panel on Climate Change ("IPCC")[37] releases a comprehensive assessment, preeminent physical and social scientists describe with great clarity and authority climate change's current and, to the extent knowable, future impacts with increasing urgency.[38] The Assessment

[35] This is the informal slogan of the popular climate justice movement and was the tag line of "Climate Games," which described itself as the world's largest Disobedient Action Adventure Game mobilized for the Paris UNFCCC meetings. *See* Climate Games, https://www.facebook.com/climategames/ [https://perma.cc/7BEB-3L3Q] (last visited Mar. 4, 2018). *See also* Matt McDonald, *The 'Climate Games' Aren't Just Activist Stunts—They're Politics Beyond the UN*, Conversation (Dec. 9, 2015), https://theconversation.com/the-climate-games-arent-just-activist-stunts-theyre-politics-beyond-the-un-51872 [https://perma.cc/Y4TT-Z9LR].

[36] Here I use "power" in at least two different ways—to describe fossil-fuel powered electrons or uneven heft at the international negotiations table.

[37] Established by the World Meteorological Organization and the United Nations Environment Programme (UNEP) in 1988, the IPCC is the international body for assessing the science related to climate change. It provides to policymakers regular assessments of the scientific basis of climate change, its impacts and future risks, and options for mitigation and adaptation. *See* IPCC, http://www.ipcc.ch [https://perma.cc/2GE9-3P8F].

[38] The IPCC has prepared five Assessment Reports. They published the First Assessment Report in 1990 and the sixth Report will be released in 2022. The most recent Fifth Assess-

Reports, which reflect international scientific consensus, distill and summarize current understandings of anthropogenic climate change. Consistent with the Global Change Research Act of 1990,[39]the U.S. publishes a similar document that specifically details understandings and impacts for U.S. states, territories, and affiliated islands.[40] The published climate projections are not hyperbolic. Rather, because they are consensus documents based on peer-reviewed articles, the reports are conservative and time-delayed in their accounts of the state of the climate. In other words, the documents do not reflect outlier projections nor those published at the time of the reports' release. Nonetheless, the documents produce remarkable findings, namely the unequivocal contribution of human activity to climate change through the large-scale combustion of fossil fuels and widespread deforestation[41] and the significant disruption to current socioeconomic systems and the lives and livelihoods of human and non-human communities that are occurring or forecast to result.

In addition to summarizing the (always bleaker) climate prognosis, the reports underscore the dynamic nature of climate change by detailing positive feedback loops. These feedback loops are self-reinforcing cycles that accelerate climate change and increase the likelihood of potential abrupt and/or irreversible surprises.[42] With very high confidence, report authors cite at least two types of potential surprises: "compound events" in which multiple extreme climate events occur simultaneously or sequentially and "critical threshold" or "tipping point event" in which the climate system crosses a threshold that leads to large impacts.[43] Whether to chronicle melting Arctic icecaps or erosive flooding along coastal corridors, some commentators refer to the impacts of this dynamic change as the "new normal."[44] That descrip-

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ment Report, released in 2014, stated that the warming of the climate system "is unequivocal" and that it is "extremely likely" (95–100%) that human influence has been the dominant cause of the observed warming since the mid-20th Century. IPCC, *Climate Change 2013: The Physical Science Basis*, *in* IPCC FIFTH ASSESSMENT REPORT 3–32 (2013).

[39] Global Change Research Act of 1990, 15 U.S.C. . § 2921 (2016).

[40] The Global Change Research Act of 1990 mandates that the U.S. Global Research Program prepare and submit a Quadrennial Assessment to the President and Congress. 15 U.S.C. § 2936 (2016). The Assessment, among other things, "analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity." *Id.*

[41] D.J. Wuebbles et al., *supra* note 5.

[42] *See* Kopp et al., *supra* note 28, at 411 ("[Positive feedbacks] have the potential to accelerate human-induced climate change and even shift the Earth's climate system, in part or in whole, into new states that are very different from those experienced in the recent past (for example, ones with greatly diminished ice sheets or different large-scale patterns of atmosphere or ocean circulation).").

[43] D.J. Wuebbles et al., *supra* note 5.

[44] *See, e.g.*, Oliver Milman, *Hurricanes and Heatwaves: Stark Signs of Climate Change 'New Normal'*, GUARDIAN (Dec. 28, 2017), https://www.theguardian.com/environment/2017/dec/28/climate-change-2017-warmest-year-extreme-weather [https://perma.cc/78WM-BWK6]. *But see* David Wallace-Wells, *This Isn't 'the New Normal' for Climate Change—That Will be Worse*, N.Y. MAG. (Oct. 11, 2017), http://nymag.com/daily/intelligencer/2017/10/why-this-isnt-the-new-normal-for-climate-change.html [https://perma.cc/XAJ6-559A].

tion, however, is both discomfiting and misleading. Climate change is not a static phenomenon producing a definitive and steady, however new and unfamiliar, normal. Rather, the consequences of climate change will not only intensify but continually shift as average global temperature increases over time. Further, the *rate* of change is increasing.[45] In sum: more significant change, more swiftly.

The geophysics of climate change has implications for socioeconomic and political organization at all levels, as does the failure to appreciate the singularly unique challenge it presents as it proceeds in its inexorable (and at times stochastic) upward trend. Melting glaciers, extreme storms, rising sea levels, and ocean acidification are already evident with concomitant impacts to the economy and demographic composition of cities, states, and countries.[46] For example, "the incidence of daily tidal flooding is accelerating in more than 25 Atlantic and Gulf Coast cities."[47] Sea levels may rise by one to four feet by 2100—and a rise of eight feet "cannot be ruled out."[48] Heat waves, large forest fires, and chronic and prolonged drought are evident and increasing.[49]

Because of its causes and effects, and the deeply lopsided nature of them,[50] "climate change" is a political term as well as a scientific one. As early as 2001, the Intergovernmental Panel on Climate Change ("IPCC") stated, "*Developing countries tend to be more vulnerable to climate change . . . [and] are expected to suffer more adverse impacts than developed countries* . . . . Within regions or countries, impacts are expected to fall most heavily, in relative terms, on impoverished persons."[51] The lived experience of climate change and one's vulnerability to it is also a consequence of historical and systemic inequality. It reflects a series of decisions and differential inputs by state and private actors across geographic and temporal timescales.[52] The impacts of atmosphere-altering emissions may not have been intentional but are consequential nonetheless. Further, there has been

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[45] *See* D.J. Wuebbles et al., *supra* note 5, at 14 ("Forcing due to human activities . . . has become increasingly positive (warming) since about 1870, and has grown at an accelerated rate since about 1970."); *id.* at 24 ("Positive feedbacks (self-reinforcing cycles) within the climate system have the potential to accelerate human-induced climate change and even shift the Earth's climate system[.]").

[46] *See id.* at 10.

[47] *Id.*

[48] *Id.*

[49] *Id.*

[50] *See, e.g.*, STEPHANE HALLEGATTE ET AL., SHOCK WAVES: MANAGING THE IMPACTS OF CLIMATE CHANGE ON POVERTY (World Bank 2016), *available at* https://openknowledge.worldbank.org/bitstream/handle/10986/22787/9781464806735.pdf?sequence=13&isAllowed=y [https://perma.cc/S463-227Q].

[51] IPCC, *supra* note 7, at 70–71. *See also* PIYA ABEYGUNAWARDENA ET AL., AFRICAN DEV. BANK ET AL., POVERTY AND CLIMATE CHANGE 5 (2013) ("[T]he countries with the fewest resources are likely to bear the greatest burden of climate change in terms of loss of life and relative effect on investment and economy.").

[52] *See, e.g.*, Maxine Burkett, *Justice and Climate Migration*, *in* CLIMATE REFUGEES: BEYOND THE LEGAL IMPASSE? 72 (Simon Behrman & Avidan Kent eds., 2018).

significant advocacy for alternative political economies. In other words, a less carbon intensive economy has been possible for decades,[53] and nations had the opportunity to respond to climate change with more reasonable alternative conduct.[54]

B. Climate Justice and the Unfinished Work of the Law

Current legal structures and underlying principles facilitated, if not actively produced, both the significant disruption to global atmospheric chemistry as well as the erratic and uneven vulnerability to its effects. Climate justice scholars advance trenchant arguments on this point by analyzing, for example, law's structural complicity in the differing outcomes and forecasts for the poor and people of color.[55] These critiques often note that the very design of the law, particularly the centrality of the corporate form and its interests, is fundamentally predisposed to environmental degradation—and indifferent, at best, to inequitable human outcomes.[56] Other scholars criticize the international community's failure to clearly establish the duties that respond to the rights claims of those who disproportionately suffer from others' overuse of the global commons.[57] Theories pertinent to this debate include those of climate reparations and non-repetition, which counsels against remedies that risk repeating the initial injury.[58] Arguments about how to solve the problem reveal the biases and limitations in the law's current ability to right climate wrongs.

Climate justice is the field that attends to the direct relationship between social inequality and environmental degradation resulting from cli-

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[53] *See, e.g.*, Frank Biermann & Rainer Brohm, *Implementing the Kyoto Protocol Without the United States: The Strategic Role of Energy Tax Adjustments at the Border*, 4 CLIMATE POL'Y 289, 289–302 (2005). *See also* Naomi Klein, *Edward Said Lecture: 'Let Them Drown: The Violence of Othering in a Warmer World,'* YOUTUBE (May 25, 2016), https://www.youtube.com/watch?v=hLEtIu4iY.This assertion consciously echoes what other scholars and public intellectuals have said on the matter. We call this the "Anthropocene," but this is one version of what the human footprint on its environment might have been. This was not an inevitable byproduct of the human experience.

[54] *See, e.g.*, Maxine Burkett, *Duty and Breach in an Era of Uncertainty: Local Government Liability for Failure to Adapt to Climate Change*, 20 GEO. MASON L. REV. 775 (2013).

[55] *See, e.g.*, Humphreys, *supra* note 21; Grear, *supra* note 26; Gonzalez, *supra* note 33.

[56] *See, e.g.*, Grear, *supra* note 26, at 106 (citing STEPHEN TURNER, A GLOBAL ENVIRONMENTAL RIGHT (1st ed. 2013)) (explaining that "separate legal personality, limited liability, the separation between ownership and control of corporations, and the legal duty placed upon company directors to pursue the company's best interests as a profit-making entity are key structural juridical reasons why environmental legal responses fail with respect to meeting important accountability targets for modes of environmental degradation.").

[57] *See* Marcus Hedahl, *Directional Climate Justice: The Normative Relationship between Moral Claim Rights and Directed Obligations*, 5 J. HUM. RTS. & ENV'T 35 (2014).

[58] *See, e.g.*, Maxine Burkett, *Climate Reparations*, 10 MELBOURNE J. OF INT'L L. 509 (2009) [hereinafter Burkett, *Climate Reparations*]; Maxine Burkett, *Reconciliation and Non-Repetition: A New Paradigm for African-American Reparations*, 86 OR. L. REV. 99 (2007) [hereinafter Burkett, *Reconciliation and Non-Repetition*].

mate change.[59] The field is intentionally integrative in its approach by embracing the unfinished work on correcting historical injustices and advancing preferred futures, while remaining mindful of the systemic challenges at hand. It resists, by definition, the law's predilection toward stultifying compartmentalization, particularly at moments like this one when functioning systems and integration are essential to meet systemic and entangled climate impacts. Informed by post-colonial and critical legal scholarship, as well as environmental justice principles that emerged in the late 20th century, climate justice scholars are clear-eyed about the limitations and active obstacles contemporary law present. This section engages a few of the most striking arguments.

Climate justice scholars and advocates seek to address the convergence of two realities—the contemporary political economy and increasing rates of change—and recognizes both as the culmination and amplification of other nagging justice problems colliding over time.[60] In his article *Climate Justice: The Claim of the Past*, Stephen Humphreys notes that climate change actually raises few new questions. Rather, climate change, "intensifies and exacerbates existing patterns."[61] In other words, "the most vulnerable to climate change are most vulnerable for a reason."[62] Humphreys notes some of the component parts of the convergence of climate injustice with other injustices, stressing the ways its inequitable impacts implicate, among other things: "human rights that are unenforced, unsubstantiated, even unarticulated; path-dependence on an ever-expanding global economy that has already outgrown its resource base even as it polarizes wealth; a complicated international legal architecture that apparently sustains and rewards the status quo; [and] political inertia."[63] Climate justice scholars and advocates reveal and seek to address these convergences and collisions so the most vulnerable to climate change might not only survive but, optimistically, thrive in a post-climate era.[64]

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[59] For a discussion of the development of the field of climate justice, see Maxine Burkett, *Just Solutions to Climate Change: A Climate Justice Proposal for a Domestic Clean Development Mechanism*, 56 BUFF. L. REV. 169, 188 (2008).

[60] I have more comprehensively argued this point elsewhere. *See, e.g.*, Burkett, *supra* note 52. Other scholars have made similar and compelling points. *See* Grear, *supra* note 26, at 126 ("sustained reflection on climate *in*justice points us directly to the historical and contemporary *production* of the asymmetric relations of neoliberal globalization and to the distinctively *patterned* relationship between corporate juridical privilege and *climate change as a crisis of human hierarchy.*") (emphasis in original).

[61] Humphreys, *supra* note 21, at 138.

[62] *Id.*

[63] *Id.* at 136 (quotations omitted).

[64] For a developed explication of the post-climate era, see Burkett, *supra* note 12, at 1. There, I argue:

> Our thorough reworking of our environment will necessarily impact the legal, political, and economic systems in which they were conceived, developed, and globalized. At this moment in geological history, when the impacts of climate change are increasingly palpable and understood, I suggest that we are embarking on a post-climate era in law and human society.

Indeed, a community's exposure to extreme events is not the sole determinant of its vulnerability to climate change impacts.[65] The strength of its natural and synthetic systems—of economy and governance, for example—and its ability to adapt to the impacts of climate change are also critically important. For example, it is not a coincidence or sad irony that those least able to adapt to rising sea-levels were also colonized by European empires.[66] Aaron Saad specifically identifies colonial policy, cold war politics, and structural adjustment programs as mechanisms that—incidentally at best—locked in vulnerability to climate change.[67] Climate justice framing, he maintains, insists that any efforts to respond and redress these vulnerabilities must directly address such historical injustices.[68]

To adequately respond and redress requires, then, an investigation of law's structural complicity in climate injustice. Scholars like Anna Grear seek to advance climate justice by addressing the "silo-like separation of legal taxonomies."[69] Grear acknowledges the unprecedented global complexity of climate change, which is arguably a test for even the best conceived and executed legal systems. She also notes, however, that the "organization of law itself" exacerbates the challenge for governing principles and institutions as they exist today.[70] The law espouses linear views of causation, bounded domains, and territorial jurisdictional parameters that are incapable of addressing climate change's boundary crossing effects and dis-

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> In this period, the human systems that developed under the relatively stable climate will confront challenges to their baseline assumptions and rules of participation. I suggest that an appropriately unified and thorough post-climate theory will emerge. . . . [I]n the post-climate era, our legal systems will not be immune to dramatic change. Indeed, those early signs of disparate critique are emerging first—perhaps unsurprisingly—in the environmental and international law arenas.

[65] For further discussion of climate change vulnerability assessments, see *A Framework for Climate Change Vulnerability Assessments*, WEADAPT (Dec. 4, 2014), https://www.weadapt.org/knowledge-base/vulnerability/climate-change-vulnerability-assessments [https://perma.cc/2E7E-Z7MR].

[66] *See, e.g.*, Aaron Saad, *Toward a Justice Framework for Understanding and Responding to Climate Migration and Displacement*, 10 ENVTL. JUST. 98 (2017). For a discussion of post-colonial impacts on the global economy, international environmental and economic law, and the North-South Divide, see, e.g., Attapattu & Gonzalez, *supra* note 25; M. Rafiqul Islam, *History of the North-South Divide in International Law: Colonial Discourses, Sovereignty, and Self-Determination*, *in* INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH 23 (Shawkat Alam et al. eds., 2015); Shawkat Alam & Jona Razzaque, *Sustainable Development versus Green Economy: The Way Forward?*, *in* INTERNATIONAL ENVIRONMENTAL LAW AND THE GLOBAL SOUTH, *supra*, at 609.

[67] Saad, *supra* note 66, at 100 ("The nature of the wrong here is that the ability of some actors to adapt to climate change is low due to historical legacies of injustice, which would include those of colonial policy (economic underdevelopment, weak governance structures, arbitrary borders, poor infrastructure), Cold War politics (e.g., destabilizing and/or deposing democratically elected regimes, proxy wars, small arms proliferation), and neoliberal structural adjustment programs (defunding of the public sector, structurally disadvantageous trade agreements that lock in underdevelopment).").

[68] *Id.*

[69] Grear, *supra* note 26, at 105.

[70] *Id.* at 104.

proportionately negative impacts on the poor and people of color.[71] Indeed, Grear warns against problem-solving strategies that turn to a "strong rule of law" because climate *injustice* results from structural inequities that relevant fields of law have advanced, including corporate law and international economic law.[72] To support that bold assertion, Grear cites the persistence of colonialism and its role as a progenitor of the unassailable and uniquely intimate relationship between the corporation and ultimately vulnerable peoples or environments. Citing Turner and Sinden, Grear notes the enduring primacy of the corporate form and shareholder profits over environmental integrity.[73]

Colonialism's legacy of exploitation fundamentally predisposes the contemporary political economy to degradation, a predisposition that is now baked into the global economy. According to climate justice scholar Carmen Gonzalez, modern investment law inherited from the colonial era an instrumentalist view of the environment that justified a right of resource exploitation. This right has no corresponding duty "to protect the health of local ecosystems, enhance the well-being of local communities, or advance the goals and interests of the host state."[74] Indeed, Gonzalez's review of the historical role of colonialism, contemporary bilateral investments, and robust institutional arrangements supported by instruments like the 1947 General Agreement on Tariffs and Trade (GATT agreement) and the export-led policies of the International Monetary Fund and World Bank,[75] demonstrate the structural complicity of the law, which was and remains at base a reflection of power and hierarchy.[76]

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[71] *Id.* at 105.

[72] *Id.* at 106 (arguing that climate injustice "is a manifestation of a structural pathology in which law itself is central.").

[73] *Id.* at 106, 114 (identifying the juridical privileging of the early transnational corporation as being decisive in the imposition of European colonial imperialism).

[74] Gonzalez, *supra* note 33, at 223.

[75] *Id.* at 225.

[76] *See id.* at 223–27. *See generally* Pierre Schlag, *The Anxiety of the Law Student at the Socratic Impasse—An Essay on Reductionism in Legal Education*, 31 N.Y.U. L. REV. & SOC. CHANGE 575 (2007) (describing structures of legal education that replicate hierarchy). Much has been written about the structural complicity of law in the context of racial hierarchy. *See, e.g.*, Natsu Taylor Saito, *Tales of Color and Colonialism: Racial Realism and Settler Colonial Theory*, 10 FLA. A & M U. L. REV. 1, 2 (2014). In the context of feminist legal theory and intimate violence, see Maxine Eichner, *On Postmodern Feminist Legal Theory*, 36 HARV. C.R.-C.L. L. REV. 1, 1 (2001); Judith Armatta, *Getting Beyond the Law's Complicity in Intimate Violence Against Women*, 33 WILLAMETTE L. REV. 773, 774–75 (1997). In the context of corporate and environmental law, see, e.g., Grear, *supra* note 26, 106–08 (quoting TURNER, *supra* note 56, at 32) ("[T]he very design of the law itself is fundamentally predisposed to environmental degradation and forms part of a dysfunctional global legal architecture which cannot achieve environmental sustainability."). Grear further emphasizes that the very nature of the corporation with "a separate legal personality, limited liability, the separation between ownership and control of corporations, and the legal duty placed upon company directors to pursue the company's best interests as a profit-making entity" represents a manifestation of structural complicity in the law and "are key structural jurisdictional reasons why environmental legal response fail with respect to meeting important accountability targets for modes of environmental degradation." *Id.* at 106 (citing TURNER, *supra* note 56, at 32).

Natural capital and fussy valuations of ecosystem services confirm the primacy of the market and corporate law "as the metastructure dominating all other structures."[77] The Anglo-American corporate form is now ubiquitous, and is as relevant to China as it is to the U.S. today. Further, and in anticipation of arguments to make the business case for climate action or celebrations of "environmentally-facing corporations," the creation of profit serves as a backstop to achieving environmental integrity.[78] According to Grear, the excesses of the market have driven the eco-destructive global climate crisis. She maintains, "[n]ot only is there a fundamental misalignment between the complexity of climate crisis and the law's reductive tendencies, but law's ideological structure (its deep intimacy with capitalism and its commitment to the centrality of the corporate form) renders law a paradoxical tool at best."[79] Therefore, it is counterintuitive and counterproductive to place faith in markets and the undergirding legal structure alone to change the current course of global change.

Law's systematic privileging of the corporation—a disembodied, incorporeal juridical form—stands in sharp contrast to the prototypical subjects of climate injustice—women, children and other marginalized human groups, and living ecosystems.[80] Further, and particularly relevant to cross-border climate migration discussed in greater depth in Part II, Grear notes that "while the globalized world remains perilously full of policed borders, state-corporate surveillance and other forms of bodily control for vulnerable . . . human beings, the globalized world remains relatively borderless for corporate capital."[81] Unsurprisingly, Grear prescribes a full-bodied response to this incoherence and includes, among other things, a call to "re-engineer" the corporation and challenge the context of its dominance.[82]

Grear calls for a commitment to the hopeful visions of climate justice as long as it is hitched to reflexive critique.[83] Ultimately, she prescribes a radical reformulation of law "and its categories and processes" to achieve just and resilient futures.[84] Such a reformulation would temper the Enlightment's primary concern with personal autonomy and individualism, allowing collaboration, social ties, and citizenship to flourish in the face of deeply threatening environmental degradation and accompanying displacement.[85] Further, a reformulation would also temper the primacy of economic analy-

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[77] Grear, *supra* note 26, at 108.

[78] *Id.* at 106.

[79] *Id.* at 109.

[80] *Id.* at 116–17.

[81] *Id.* at 120.

[82] *Id.* at 128.

[83] Grear's call seems especially relevant to this article as the success of my proposal is contingent on a Rawlsian exercise that will require rigorous critique.

[84] *See* Grear, *supra* note 26. *See also* Anna Grear & Conor Gearty, *Choosing a Future: The Social and Legal Aspects of Climate Change*, 5 J. OF HUM. RTS. & ENV'T 1, 6 (2014).

[85] *See* Klaus Bosselman, *Losing the Forest for the Trees: Environmental Reductionism in the Law*, 2 SUSTAINABILITY 2424, 2431 (2010) (arguing that modernity has "nurtur[ed] the idea that a healthy environment is secondary to individual well-being").

sis in public decision-making, such that those in power cease to resolve issues with deep moral implications by simply using, for example, cost benefit analyses.[86]

The mandate, therefore, for climate justice scholars is daunting while still inchoate. This is true with respect to many elements of the existing legal regime, but need not present an insurmountable hurdle. Marcus Hedahl's analysis of the absence of corresponding duties to rights claims of climate justice advocates is especially valuable here.[87] Hedahl dispenses with the notion that rights exist if and only if a corresponding directed obligation exists.[88] His argument has significant implications, because for those most vulnerable to the most adverse effects of climate there are not yet specifically determined and directed obligations to meet those rights.[89] For example, there are myriad ethical considerations at play to determine what constitutes one's fair share of the global commons and obligations to reduce emissions. The global community has failed to formulate and settle upon an actionable response. But Hedahl argues that this "fair share" may already exist, merely awaiting discovery and, presumably, implementation. Similarly, what comprises a just response to a changing climate, inexorably changing with uneven and inequitable outcome, is similarly awaiting discovery—and perhaps revealed, as this article argues, via a Rawlsian exercise.

Our failure to set up a system to respond adequately to climate change rights claims further injures in two ways. First, it fails to prevent harm.[90] Second, it denies the injured the ability to engage meaningfully in deliberations and determination about those rights.[91] "Not only can we wrong others," according to Hedahl, "we can further wrong them by not creating specific and specifically addressed directed obligations."[92] There is a secondary obligation, therefore, to create or empower institutions to ensure "that there exist, in practice, concrete obligations correlative to these rights. (Though, of course, even the secondary obligation must be called forth; it doesn't exist, as such, in law.)."[93] Again, this calling forth might take the form of a reflective deliberation behind the veil.[94]

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[86] *See id.* (arguing that prevailing views about environmental policy "[reflect] a compartmentalized, fragmented, and economically charged idea of the environment").

[87] *See generally* Hedahl, *supra* note 57, at 35 (providing such analysis).

[88] See *id.* at 35.

[89] See *id.*

[90] See *id.* at 36.

[91] *See id.*

[92] *Id.* at 47. *See also* Burkett, *supra* note 52 (arguing that, "[g]iven the limitation of human rights law to respond adequately to environmental degradation, the absence of clear environmental rights and duties is starker and more consequential. Not clearly defining environmental duties, and their application in practice, is an aggravation").

[93] *See* Humphreys, *supra* note 21, at 142 (elaborating on Hedahl's mandate that duties be correlated to the rights of those vulnerable to climate change).

[94] For further discussion of the contemporary veil climate change introduces *see infra* Section IV.A.

II. Climate Migration, Justice, and Fragmentation

Few consequences of climate change demonstrate the current legal system's inability to affect climate justice than climate-induced migration. In addition to presenting novel legal issues, climate migration exposes and applies additional pressure to all of the unfinished work of our current legal regimes. Failures to address power—whether derived from fossil-derived electrons or resulting in uneven heft at the international negotiating table—and historical contribution to both climate change and other communities' and countries' vulnerability to it are especially relevant to a discussion of climate migration. So far, a relative underappreciation of the climate's distinct nature as a geosociopolitical driver of change has predominated. This presents a challenge to those seeking just solutions or, at the very least, hoping to avoid literal and figurative exile under the current migration regimes.

An additional challenge inheres in climate migration's crosscutting nature. Both internal and cross-border movement implicate a notable breadth of laws and related institutions, agencies, and advocates. A cross-border migration might trigger multiple international law regimes, including human rights law, particularly civil and political rights, humanitarian law, and refugee law. Relevant, too, are related domestic laws on immigration and national security or implementing legislation that give effect to asylum agreements. For both cross-border migrants and the internally displaced, property law, indigenous rights, and environmental laws might also apply. The number and diversity of relevant laws presents a coordination problem. It also reveals a crippling compartmentalization of related legal regimes at a time when convergence is peculiarly necessary.

A. Climate Migration as Archetype

The changes in climate affect all aspects of contemporary life[95] while yielding and exacerbating new phenomena. The emergence of climate migration—displacement, migration, and relocation scenarios induced by climate change—is one archetypical effect. Climate migration illustrates well the inequitable outcomes caused by intersecting structures of subordination.

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[95] See, e.g., *Climate Change is Part of California's Perfect Recipe for Intense Wildfire*, PBS New Hours (Dec. 13, 2017, 6:25 PM), available at https://www.pbs.org/newshour/show/climate-change-is-part-of-californias-perfect-recipe-for-intense-wildfire [https://perma.cc/556N-M6E7]; Philip Bump, *A Los Angeles-Houston World Series in Record Heat is a Little-on-the-Nose for 2017*, Wash. Post (Oct. 25, 2017), https://www.washingtonpost.com/news/politics/wp/2017/10/25/a-los-angeles-houston-world-series-in-record-heat-is-a-little-on-the-nose-for-2017/?utm_term=.57ea9e5ec689 [https://perma.cc/J7CC]; Michaeleen Doucleff, *Are There Zombie Viruses in the Thawing Permafrost?*, NPR (Jan. 24, 2018, 5:19 PM), https://www.npr.org/sections/goatsandsoda/2018/01/24/575974220/are-there-zombie-viruses-in-the-thawing-permafrost [https://perma.cc/ACX4-KWZ8]; Sarah Kennedy, *The Weird Reason Your Christmas Tree Might Be Shedding Needles*, Yale Climate Connections (Dec. 22, 2017), https://www.yaleclimateconnections.org/2017/12/christmas-trees-struggle-in-changing-climate/ [https://perma.cc/L84H-JU5A].

It also reveals the broader shortcomings of the current legal system's ability to effect climate justice. The forecasted intensity in climate change and the accompanying rate of change will continue to impact human migration, such that typically multi-causal migration events will be more closely associated with climate change-related environmental degradation. In effect, migration traditionally known to result from an entanglement of drivers (social, economic, political) may soon have a predominant and undeniably strong climate signal.[96] Indeed, a recent study found that applications for asylum respond to temperature fluctuations, that "hotter-than-normal temperatures" are spurring people to seek asylum in Europe today, and that the "net forecast" is for asylum applications to increase in an accelerated fashion as global temperatures continue their upward trend.[97]

Whether this distinct kind of migration results from extreme heat or the slow-onset impacts of sea level rise and heat, as is occurring in the Pacific,[98] or fast-moving and unimaginably large storms that leveled small islands and displaced tens of thousands in the Caribbean,[99] the least responsible for global greenhouse gas emissions are subject to the greatest disruption. Indeed, as early as 1990, the IPCC warned that, "one of the gravest effects of climate change may be those on human migration."[100] In 2014, the IPCC put a finer point on the urgency of climate migration, noting that climate change is projected to increase the displacement of people throughout this century as risks of displacement increase when low-income or low-resourced populations experience "higher exposure to extreme weather events, in both rural and urban areas."[101]

Enough is known about the potential severity of climate migration to warrant a response.[102] Although questions remain regarding the size and

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[96] *See* Burkett, *supra* note 52.

[97] *See* Anouch Missirian & Wolfram Schlenker, *Asylum Applications Respond to Temperature Fluctuations*, 358 SCIENCE 1610, 1610 (2017).

[98] *See* Burkett, *supra* note 52. *See also* CTR FOR EXCELLENCE IN DISASTER MGT & HUMANITARIAN ASSISTANCE, THE REPUBLIC OF THE MARSHALL ISLANDS: DISASTER MANAGEMENT REFERENCE HANDBOOK 10 (2016), *available at* https://www.cfe-dmha.org/LinkClick.aspx?fileticket=pbyuANphrIg%3D&portalid=0 [https://perma.cc/6TPN-GXVD]; *Losing Your Land to Climate Change*, U.N. HUM. RTS. OFF. OF THE HIGH COMM'R, (Oct. 23, 2017), http://www.ohchr.org/EN/NewsEvents/Pages/LosingLandtoclimatechange.aspx [https://perma.cc/G4JA-HSX4].

[99] *See* Burkett, *supra* note 52. *See also In Florida, Puerto Ricans Displaced by Hurricane Maria Struggle to Adjust*, CBS NEWS (Dec. 5, 2017, 7:48 AM), https://www.cbsnews.com/news/puerto-ricans-relocate-to-florida-face-difficult-transition/ [https://perma.cc/UWX8-LNX4].

[100] IPCC, CLIMATE CHANGE: THE 1990 AND 1992 IPCC ASSESSMENTS 103 (J.T. Houghton, G.J. Jenkins & J.J. Ephraums eds., 1990), *available at* https://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_full_report.pdf; [https://perma.cc/NGX3-MJ5Q].

[101] IPCC, *Climate Change 2014: Impacts, Adaptation, & Vulnerability*, *in* IPCC FIFTH ASSESSMENT REPORT 20 (2014).

[102] One scholar states persuasively that "[i]t is not necessary for the causal link between . . . certain behavior and . . . significant environmental degradation to be beyond doubt." Astrid Epiney, *'Environmental Refugees': Aspects of International State Responsibility*, *in* MI-

scope of climate-induced population movements and whether "climate migration" is the right name, scholars and civil society have engaged in helpful, if at times contested,[103] efforts to bring greater clarity to this phenomenon. Across disparate discourses on climate migration, all agree to varying extents that, among other things, so-called "environmentally-induced migration" is growing.[104] Researchers also know that the majority of climate migrants, now and into the future, are internally displaced persons[105]—those who are forced or obliged to flee their places of habitual residence within their country's borders.[106]

Climate-induced cross-border migration, while producing fewer migrants in total number, may present significant and unique challenges.[107] Although most widely referred to as "climate refugees,"[108] the circumstances for these cross-border migrants do not typically parallel those of political refugees.[109] Consequently, they have no legally recognized definition at the international level or clear legal protections to which to appeal, constituting an additional injury with which they must contend. Other than the rare regional agreements that recognize the environment, and in one instance climate change,[110] as a driver of migration necessitating protection, most legal

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GRATION & CLIMATE CHANGE 407 (Étienne Piguet, Antoine Pécoud, & Paul De Guchteneire eds., 2011). The precautionary principle suggests that enough is known, given the current state of the social science to oblige states to take preventive measures as circumstances require. *Id.*

[103] *See, e.g.*, Lezlie C. Erway Morinière & Mohammed Hamza, *Environment and Mobility: A View from Four Discourses*, 41 AMBIO 795, 795 (2012).

[104] *Id.* at 804. *See also* KÄLIN & SCHREPFER, *supra* note 11, at 22 (noting that the magnitude of internal displacement because of "climate change-related events and processes is substantial and likely to increase in the foreseeable future").

[105] *See* KÄLIN & SCHREPFER, *supra* note 11, at 22; *see also* ELSADIG ELSHEIKH & HOSSEIN AYAZI, HAAS INST., MOVING TARGETS: AN ANALYSIS OF GLOBAL FORCED MIGRATION (2017), *available at* http://haasinstitute.berkeley.edu/sites/default/files/haasinstitute_moving_targets_globalmigrationreport_publish_web.pdf [https://perma.cc/2BR9-2ETJ]. Desertification, for instance, has forced relocation for communities in the Gobi Desert to other parts of China. *Id.* at 28.

[106] Francis M. Deng (Representative of the U.N. Secretary-General), *Guiding Principles on Internal Displacement*, U.N. Doc. E/CN.4/1998/53/Add.2, at 5 (Feb. 11, 1998).

[107] *See, e.g.*, KÄLIN & SCHREPFER, *supra* note 11, at 24. During 2010 and 2011, a severe drought, coupled with civil strife, produced a "mass exodus" of Somalis into Kenya, further destabilizing the region. Vikram Kolmannskogg, U.N. High Comm'r for Refugees (UNHCR), Pol'y Development and Evaluation Service, *Climate Change, Disaster, Displacement and Migration: Initial Evidence from Africa*, at 5–10 (Dec. 2009), *available at* http://www.unhcr.org/4b18e3599.pdf [https://perma.cc/E6RH-N5MA].

[108] This is true throughout media representations of the phenomenon; *see, e.g.*, John Wendle, *Syria's Climate Refugees*, SCI. AM., Mar. 2016, at 50; as well as in grey literature; *see, e.g.*, ELSHEIKH & AYAZI, *supra* note 105, at 8–11. Calls in academic literature for a new category of refugee have not succeeded to date. *See e.g.*, Frank Biermann & Ingrid Boas, *Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees*, 10 GLOB. ENVTL. POL. 60 (2010).

[109] For the basic definition of "refugee," see U.N. Conference of Plenipotentiaries on the Status of Refugees and Stateless Persons, *Final Act and Convention Relating to the Status of Refugees*, U.N. Doc. A/CONF.2/108 (July 28, 1951); *see also* Refugee Act of 1980, Pub. L. No. 96-212, 94 Stat. 102 (1980); *infra* Section II.B. (discussing international refugee law).

[110] *See* African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention) art. 5 § 4, Oct. 23, 2009, 52 I.L.M. 400 (stat-

scholars understand that international refugee law does not provide protection in spirit or language. It is possible that climate migration can trigger international refugee law's protection, but that would occur in only two circumstances: (i) if authorities deny assistance or protection to certain people because of their race, religion, nationality, or membership in a particular social group when sudden- or slow-onset events occur and expose them to treatment tantamount to persecution or (ii) if disputes over dwindling natural resources because of climate change result in persecution that targets members of the above classifications in situations of violence, conflict or serious human rights abuses.[111]

Nevertheless, the efforts to adapt existing or develop new and responsive law and policy specific to climate migration have been slow to build. At the international level, parties did not affirmatively acknowledge and address climate change and human mobility under the UNFCCC until twenty years after the IPCC's first statement on the matter.[112] A "climate change displacement facility,"[113] a more assertive effort proposed for inclusion in the recent Paris Agreement, did not proceed over opposition from Australia, which preferred to "work closely with [their] Pacific partners on these important issues."[114] Instead, the non-binding Paris Decision requested a task force to "develop recommendations for integrated approaches to avert, mini-

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ing that parties "should take protection measures and assist people who had been displaced internally due to natural disasters or caused by man, including climate change.").

[111] KÄLIN & SCHREPFER, *supra* note 12, at 32-33.

[112] Paragraph 14(f) of the Cancun Decision ushered in that discussion within the broader adaptation efforts. Conference of the Parties to the U.N. Framework Convention on Climate Change, *Report of the Conference of the Parties on Its Sixteenth Session*, U.N. Doc. FCCC/CP/2010/7/Add.1, at 5 (Mar. 15, 2011). For further discussion of the significance of this inclusion of climate migration, *see* KÄLIN & SCHREPFER, *supra* note 12, at 50. Continued, though cursory, efforts to understand climate's impact on migration followed in subsequent decisions, notably in Conference of the Parties to the U.N. Framework Convention on Climate Change, *Report of the Conference of the Parties on Its Eighteenth Session*, U.N. Doc. FCCC/CP/2012/8/Add.1, at 22–23 (Feb. 28, 2013) and Conference of the Parties to the U.N. Framework Convention on Climate Change, *Report of the Conference of the Parties on Its Twenty-first Session*, U.N. Doc. FCCC/CP/2015/10/Add.1 (2015) (adopting the Paris Agreement).

[113] In the course of the year leading up to the Paris Agreement, climate-related displacement was prominent in draft texts. Early drafts of the agreement included a first-time elaboration of a "climate change displacement coordination facility: under the proposed loss-and-damage provisions." *See, e.g.*, U.N. Framework Convention on Climate Change, Draft Paris Outcome, U.N. Doc. FCCC/ADP/2015/L.6, at 11 (2015). The facility would have assisted with coordinated efforts to address the needs of those displaced by climate-related extreme events and plan for organized relocation. *See also* Maxine Burkett, *Reading Between Two Red Lines: Loss and Damage and the Paris Outcome*, 6 CLIMATE L. 118 (2016); Jessica Wentz & Michael Burger, *Designing a Climate Change Displacement Coordination Facility: Key Issues for COP 21*, COLUM. L. SCH. SABIN CTR. CLIMATE CHANGE L. 1–2 (2015), http://columbiaclimatelaw.com/files/2016/06/Wentz-and-Burger-2015-09-Displacement-Coordination-Facility.pdf [https://perma.cc/EWH9-VKS9].

[114] Oliver Milman, *UN Drops Plan to Help Move Climate-Change Affected People*, GUARDIAN (Oct. 6, 2015), http://www.theguardian.com/environment/2015/oct/07/un-drops-plan-to-create-group-to-relocate-climate-change-affected-people [https://perma.cc/HSJ3-KQ4F]. Australia's "traditional allies"—Britain, France, and the U.S., under the Obama Administration—were open to the idea.

mize and address displacement related to the adverse impacts of climate."[115] Relevant regional agreements have also not proliferated. And, although the Guiding Principles on Internal Displacement[116] do not exclude climate change as a driver of internal displacement, they also do not provide specific provisions to guide domestic decision-making. In any event, the Guiding Principles are soft law and, unlike the international and regional agreements mentioned, cannot bind state parties. With the notable exception of New Zealand and its recently proposed climate refugee visa,[117] governments on balance are reticent to erect new policy infrastructure to address climate migration. Expert groups and intergovernmental initiatives have made robust efforts at gap-filling[118] that may serve as important laboratories for addressing and arresting the worst possible outcomes. These initiatives may become especially important: The existing absence of political will to implement burden-sharing principles already leaves millions of asylum seekers in precarious situations, with many languishing in camps or on remote and forsaken islands.[119]

The migration and relocation circumstances of small island developing states, such as the Pacific island states of Kiribati and the U.S.-affiliated Republic of the Marshall Islands, present thornier challenges. Political leaders and legal scholars alike have raised questions regarding statelessness in response to the possible loss of habitable territory.[120] Meanwhile, the islanders largely espouse a deep resistance to the notion that they are "sinking."[121]

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[115] U.N. Framework Convention on Climate Change, Adoption of the Paris Agreement, ¶ 50, U.N. Doc. FCCC/CP.2015/L.9/Rev.1 (2015)

[116] U.N. Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, Guiding Principles on Internal Displacement (2001), http://www.unhcr.org/43ce1cff2.pdf [https://perma.cc/JVA7-A8TW].

[117] Alex Randall, *New Zealand Proposes Humanitarian Visa for 'Climate Refugees'*, DIPLOMAT (Nov. 30, 2017), https://thediplomat.com/2017/11/new-zealand-proposes-humanitarian-visa-for-climate-refugees/ [https://perma.cc/97W6-D25J].

[118] *See generally Disaster-Induced Cross-Border Displacement*, NANSEN INITIATIVE (last visited Feb. 4, 2018), https://www.nanseninitiative.org/ [https://perma.cc/32GV-DHDF].

[119] There are a number of examples throughout Europe, on Manus Island in Papua New Guinea, or along the US's southern continental border. *See e.g.*, Helen Davidson, *Manus Humanitarian Crisis a 'Damning Indictment' of Australia's Refugee Policy: UNHCR*, GUARDIAN (Nov. 21, 2017) https://www.theguardian.com/australia-news/2017/nov/22/manus-humanitarian-crisis-a-damning-indictment-of-australias-refugee-policy-unhcr [https://perma.cc/3KX3-HQN2].

[120] *See Climate Change and Statelessness: An Overview*, U.N. HIGH COMMISSIONER FOR REFUGEES (May 15, 2009), http://www.unhcr.org/refworld/docid/4a2d189d3.html [https://perma.cc/NKT9-YAEX].

[121] For a striking, and popular, statement of Marshallese resistance to the notion of inevitability of migration, see Kathy Jetnil Kijner, *Tell Them*, KATHY JETNIL KIJNER, https://jkijiner.wordpress.com/2011/04/13/tell-them/ [https://perma.cc/6C2Y-HPLK]; Kathy Jetnil Kijner, *Dear Matafele Peinam*, KATHY JETNIL KIJNER https://jkijiner.wordpress.com/2014/09/24/united-nations-climate-summit-opening-ceremony-my-poem-to-my-daughter/ [https://perma.cc/8LFM-A9M5]. Walter Kälin, current Envoy of the Chair of the Platform on Disaster Displacement and former Representative of the United Nations Secretary-General on the Human Rights of Internally Displaced Persons, provided five general scenarios that might entail climate-induced migration, including "iii) So-called 'sinking' small island states." Water Kälin, *Conceptualising Climate-Induced Displacement*, *in* CLIMATE CHANGE AND DISPLACE-

Many residents of threatened islands eschew the "refugee" categorization and resist[122] the inevitability of losing their lands—home to the bones of their ancestors and the birthplace of the next generation. Again, the existing international law is not straightforwardly transferable to contemporary circumstances of territorial loss. Specifically, the Convention on the Status of Stateless Persons, which defines a "stateless person" as one "who is not considered as a national by any State under the operation of its law,"[123] does not on its face include the possible dislocation of all i-Kiribati or Marshallese.[124] It also does not immediately resolve the question of whether a state would cease to exist if it was no longer physically viable. Even if the Convention were expansive enough to cover the circumstances of similarly-situated low-lying and atoll nations (and had numerous signatories, which it does not), the protection it provides is modest and, notably, is silent with respect to admission to another country.[125] In sum, guarantees of civil and political rights for migrants, avenues to avoid marginalization of those migrants, management challenges for host communities, and the responsibility of the international community, generally, remain undetermined and ill-defined.

U.S. domestic relocation scenarios are equally illuminating and responses are equally undeveloped. From the Arctic to the Pacific Northwest to the Mississippi Delta, climate-related relocation is necessary and incipient. The U.S. federal government under the Obama Administration, along with state and local partners, considered and began facilitating movement from high-risk areas.[126] In Louisiana, Isle de Jean Charles is notable as the first federally-supported community to actively undergo planned relocation.[127] Recognizing the significant loss of land—resulting from rising seas

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MENT 85 (Jane McAdam ed., 2010). A number of Pacific island communities are experiencing dislocation because of diminishing inhabitability of their islands. Before sea level rise causes the overtopping of the low-lying islands, however, without significant intervention climate change impacts such as lack of fresh water and salinization of arable lands may stress the islands to an unmanageable degree. *See* Kenneth R. Weiss, *Before We Drown We May Die of Thirst*, 526 NATURE 624 (Oct. 29, 2015).

[122] Roger-Mark De Souza, *Islands in Paris: New Climate Deal Gives Some Recognition to Humanity's Truth Bearers*, NEW SECURITY BEAT (Dec. 16, 2015), https://www.newsecuritybeat.org/2015/12/islands-paris-climate-deal-recognition-humanitys-truth-bearers/ [https://perma.cc/BH94-PAVL].

[123] Convention Relating to the Status of Stateless Persons, art. I(1), Sept. 28, 1954, 360 U.N.T.S. 117.

[124] *See generally* Jane McAdam, *'Disappearing States', Statelessness and the Boundaries of International Law*, *in* CLIMATE CHANGE AND DISPLACEMENT, *supra* note 119, at 105 (describing the novel legal issues raised by the physical disappearance of nations due to climate change).

[125] *See generally* Convention Relating to the Status of Stateless Persons, Sept. 28, 1954, 360 U.N.T.S. 117 (outlining the standards of treatment of stateless persons once they have taken up residence in a new state); KÄLIN & SCHREPFER, *supra* note 11, at 27.

[126] *See* discussion in Burkett, *supra* note 52.

[127] Carolyn Van Houten, *The First Official Climate Refugees in the U.S. Race Against Time*, NAT'L GEOGRAPHIC (May 25, 2016), http://news.nationalgeographic.com/2016/05/160525-isle-de-jean-charles-louisiana-sinking-climate-change-refugees/ [https://perma.cc/HU9T-2NS3]. *See also* Coral Davenport & Campbell Robertson, *Resettling the First Ameri-*

colliding with decades of channelization and oil and gas development—and the increased risk of staying in place as each hurricane season approaches, the Department of Housing and Urban Development funded the relocation of island residents.[128] This was a first for the U.S. government and a number of questions arose and will persist if the government assists more communities' moves to higher ground. Notable among them are: Given finite resources, how do we decide between equally vulnerable communities?[129] Which entity will fund it? And, how do people relocate in a way that affords them the opportunity to thrive?

B. Justice and Climate Migration

In the U.S. and abroad, colonization's migration and mobility restrictions stifled active travel and resettlement that might be especially useful today. Tracey Skillington concludes, for example, that vulnerability to climate change was less irony than inevitability in the Pacific.[130] Prior to colonization, many communities lived in protected, high land areas to in large part protect against sudden storms or flooding. Colonial authorities "encouraged" the establishment of coastal villages, thus increasing exposure.[131] Further, the notion of fixed boundaries is another colonial import into the region. National borders did not hamper movement within and between the 'sea of islands' in pre-colonial Oceania.[132] Indeed, according to Silja Klepp and Johannes Herbeck, "[t]his development transformed the common image of Oceania—up to the present day—into a set of isolated, vulnerable and distant island states, or 'islands in a far sea'."[133] In the United States, settler colonialism has had a similarly devastating effect for indigenous communities—and for these communities' ability to adapt to or rebound from change. As Kyle Powys White explains, climate change in the indigenous context "refers very specifically to how industrial settler campaigns *both* dramatically changed ecosystems, such as through deforestation, overharvesting and pollution; *and* obstructed indigenous peoples' capacities to adapt to the

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can 'Climate Refugees', N.Y. TIMES (May 3, 2016), https://www.nytimes.com/2016/05/03/us/resettling-the-first-american-climate-refugees.html?action=click&contentCollection=Climate&module=RelatedCoverage&region=Marginalia&pgtype=article.

[128] Van Houten, *supra* note 127. *See also* UNITED STATES DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, NATIONAL DISASTER RESILIENCE COMPETITION GRANTEE PROFILES 7–10 (2016), *available at* https://portal.hud.gov/hudportal/documents/huddoc?id=NDRC-GrantProf.pdf [https://perma.cc/M5XG-JGBH].

[129] See e.g., Eli Keene, *Resources for Relocation: In Search of a Coherent Federal Policy on Resettling Climate-Vulnerable Communities*, 48 TEXAS ENV'L. L. J. 1 (2018).

[130] *See* Tracey Skillington, *Reconfiguring the Contours of Statehood and the Rights of Peoples of Disappearing States in the Age of Global Climate Change*, 5 SOC. SCI. 46 (2016).

[131] *Id.*

[132] Silja Klepp & Johannes Herbeck, *The Politics of Environmental Migration and Climate Justice in the Pacific Region*, 7 J. HUM. RTS. & ENVT. 54, 70 (2016).

[133] *Id.* at 71.

changes, through removal and containment on reservations."[134] The affront is contemporary as well: obstruction of indigenous responses persist not only in continued isolation and immobility, but also by way of legal and diplomatic failures to prevent dangerous climate change and remove institutional barriers to adaptation within the confines of reservations.[135]

The solutions to climate migration proffered to date have not, on balance, meaningfully engaged with the historical and contemporary injustices animating the phenomenon. The sophisticated and well-coordinated efforts by entities like the Nansen Initiative[136] are laudable, particularly given the ramifications of the current legislative and regulatory void.[137] Even if imperfect, they advance a kind of "rough justice,"[138] which is a worthy goal given the gravity of the circumstances. These actors suggest that economic development or charitable efforts through humanitarian relief will adequately address the uneven impacts of climate change. The very framing of the phenomenon as a developmental or humanitarian issue, however, elides justice claims and, according to Klepp and Herbeck, "impede[s] politicization of the discourse" on migration.[139] Such apolitical approaches to problem-solving may entrench suboptimal responses. The possible consequences of the government of Kiribati's "migration with dignity" strategy are illustrative.[140] A significant part of their wisely multi-pronged approach to climate migration may exclude the most vulnerable. "Up-skilling" the population for foreign labor markets, per "migration with dignity" will likely favor a small percentage of young, educated, and middle-and upper-class in Kiribati.[141]

Finally, and significantly, the elision of climate justice in the solutions proffered and executed is perhaps not surprising given its relative absence from the larger discourse on climate migration. Saad notes that the recognized framings of environmental migrants noticeably do not include a cli-

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[134] Kyle Powys Whyte, *Our Ancestors' Dystopia Now: Indigenous Conservation and the Anthropocene*, *in* ROUTLEDGE COMPANION TO THE ENVIRONMENTAL HUMANITIES 206, 209 (Ursula K. Heise, Jon Christensen, & Michelle Niemann ed., 2016) (emphasis in original).

[135] *Id.*

[136] *See* THE NANSEN INITIATIVE, https://www.nanseninitiative.org/ [https://perma.cc/WGS3-CU4H]; *see also* 1 THE NANSEN INITIATIVE, AGENDA FOR THE PROTECTION OF CROSS-BORDER DISPLACED PERSONS IN THE CONTEXT OF DISASTERS AND CLIMATE CHANGE (2015).

[137] *See e.g.* Burkett, *supra* note 52 (discussing the legal void and arguing that it typifies David Caron's theory on legal feedback mechanisms).

[138] For a relevant discussion of rough justice in the climate justice context, see Maxine Burkett, *Rehabilitation: A Proposal for a Climate Compensation Mechanism for Small Island States*, 13 SANTA CLARA J. INT'L L. 81 (2015) (exploring the value in developing a funding mechanism to respond to the consequences of climate change on small island states).

[139] Klepp & Herbeck, *supra* note 132, at 59.

[140] Kayla Walsh, *Kiribati Prepares for 'Migration with Dignity' to Confront the Ravages of Climate Change*, WIRE (July 15, 2017), https://thewire.in/157987/kiribati-migration-climate-change/ [https://perma.cc/UZQ6-Y9SE].

[141] Klepp & Herbeck, *supra* note 132, at 68 ("[s]everal interviewees in the research informing this article believe that the . . . strategy is likely to . . . work only for a small percentage of young, educated, middle- and upper-class *I-Kiribati*").

mate justice framing, which would tailor policy around the understanding that the environmental migrant is a wronged party deserving of redress.[142] The absence of this frame, suggests that it is not yet prominent or, as I would argue, sufficiently acknowledged in the current discourse.[143] Employing a climate justice framework, however, would have palpable and meaningful outcomes for climate migration. Chief among these, according to Saad, is dispensing with the victim/perpetrator dichotomy and replacing it with wronged or owed parties, on the one hand, and withholders of equitable relief on the other.[144] Further, introducing climate justice framing and approaches in the upstream discourse on climate migration would facilitate the decision maker's ability to create and implement downstream responses that are more reparative than simply accommodating.[145]

C. The Laws of Climate Migration and the Regulatory Commons

Climate migration within and across borders currently implicates myriad legal fields as well as both hard and soft law.[146] Some, especially human rights instruments, are obvious. The civil and political rights enumerated in the International Covenant on Civil and Political Rights ("ICCPR") are of particular relevance as provisions include the freedom to leave one's country and to enjoy reasonable protections as an alien in another.[147] The International Convention on Protection of the Rights of All Migrant Workers and Members of their Families might also have an effect.[148] As the subject of sovereign domestic affairs, internal migrants are not covered by international conventions and do not enjoy specific protection provisions, but would appeal to applicable standards of human rights laws such as provisions in Arti-

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[142] *See* Saad, *supra* note 66, at 100.

[143] *See id.*

[144] *See id.*

[145] *See* Burkett, *supra* note 52. *See also* Saad, *supra* note 66, at 100. Klepp and Herbeck make a similar point. They assert that:

> [A] post-colonial sensibility would imply that research should aim to reveal the tendency of countries of the global North not to acknowledge responsibility for the social consequences of climate change. Such epistemic expansion—which can be read as a form of post-colonial methodological commitment to the reversal of past injustices (including the epistemic) might just open up new options for "hearing", action and maneuvering space in the search for accountable and responsible migration and climate policies.

Klepp & Herbeck, *supra* note 132, at 73.

[146] Hard law imposes precise and binding obligations and delegates interpretive authority to a third party. In contrast, soft law can be formally non-binding or technically binding but conferring unlimited discretion on the parties, and/or lacking a third-party interpretation or implementation of the law. *See* Greg C. Shaffer & Mark A. Pollack, *Hard vs. Soft law: Alternatives, Complements and Antagonists in International Governance*, 94 MINN. L. REV. 706, 714–15 (2010).

[147] International Covenant on Civil and Political Rights art. 12–13, Dec. 16, 1966, 99 U.N.T.S. 171.

[148] *See generally* International Convention on Protection of the Rights of All Migrant Workers and Members of Their Families, Dec. 18, 1990, 2220 U.N.T.S. 3.

cle 12 of the ICCPR securing the liberty of movement and the freedom to choose one's residence.[149] Further, the 1998 Guiding Principles for the Internally Displaced are non-binding norms that extend protections for those moving within their country.[150] Soft law instruments relevant to climate migration include the UN Principles on Housing and Property Restitution for Refugees and Displaced Persons ("the Pinheiro Principles"), the UN Inter-Agency Standing Committee's Operational Guidelines on Human Rights and Natural Disasters, the Human Rights Council Resolution 7/23, 10/4, and 18/22 on Human Rights and Climate Change, among others. These laws and statements of norms may not yield actionable or favorable results, but they are established and relevant.

Similarly, for domestic laws, the appropriate resolution of disputes is unclear, yet one can imagine the fields in which contest and remedy may arise. Those that attempt to cross borders into the United States will have to contend with the shifting landscape of immigration law and civil rights for those with unresolved residence status. Internally, communities like Isle de Jean Charles will have property law questions that arise with respect to non-possessory interests in evacuated lands, for example.[151]

Other climate migration scenarios engage areas of law beyond the immediately obvious. The kind of "statelessness" contemplated for the low-lying and atoll nations, for example, is not simply a statehood concern. It also implicates, among other things, the law of the sea and baseline determinations and principles of national identity and state responsibility.[152]

The dizzying breadth of laws and numerous spheres of governance and related institutions that might direct future management of climate migration does not ensure the challenges presented will be resolved. Indeed, the sheer number can result in a "regulatory commons" problem—a failure to manage

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[149] International Covenant on Civil and Political Rights art. 12, Dec. 16 1966, 99 U.N.T.S. 171. *See also* KÄLIN & SCHREPFER, *supra* note 11, at 24.

[150] U.N. High Commissioner for Refugees, Guiding Principles on Internal Displacement, U.N. Doc. E/CN.4/1998/53/Add.2 (Feb. 11, 1998). *See also* Roger Zetter, *The Role of Legal and Normative Frameworks for the Protection of Environmentally Displaced People*, *in* MIGRATION, ENV'T & CLIMATE CHANGE: ASSESSING EVIDENCE 392 (Frank Laczko & Christine Aghazam eds., 2009). Zetter identifies how protection norms have been extended to another specific category of migrant exemplified in the Dana Declaration on Mobile Peoples and Conservation leading to UN General Assembly Resolution in 2007, which protects rights of indigenous and mobile peoples to be protected from involuntary or forced displacement and addresses its impact on livelihoods and cultural identity. *Id.* at 392. *See also* Mohammad Qawabah et al., *Dana Declaration on Mobile Peoples and Conservation* (2002), http://danadeclaration.org/main_declarationenglish.shtml [https://perma.cc/9WB4-G7Y5]. Zetter also notes that "normative rights are embedded in the DIDR (Development-induced Displacement and Resettlement) and the IRR (Impoverishment Risks and Recovery)—models pioneered by the World Bank over the last two decades." Zetter, *supra*, at 392.

[151] *See* MAXINE BURKETT, ROBERT R.M. VERCHICK & DAVID FLORES, CTR. FOR PROGRESSIVE REFORM, REACHING HIGHER GROUND: AVENUES TO SECURE AND MANAGE NEW LAND FOR COMMUNITIES DISPLACED BY CLIMATE CHANGE 1 (2017), *available at* http://progressivereform.org/articles/ReachingHigherGround_1703.pdf [https://perma.cc/YB6J-PQXW].

[152] Davor Vidas, David Freestone & Jane McAdam, *International Law and Sea Level Rise: The New ILA Committee*, 21 ILSA J. INT'L & COMP. L. 397, 401 (2015).

at all.[153] In short, though a social ill is widely recognized, the very existence of multiple potential managers prevents any one player from taking responsibility. This is especially true when the causes and harms of that ill cross jurisdictional or state boundaries. Because of its crosscutting nature, climate-induced migration can continue to evade focused attention because no one policy community is obliged to respond nor can migrants hold any one entity accountable for its failure to respond. Further, the conventions that appear most pertinent in theory are not in fact. For example, the Refugee Convention does not apply per the terms and interpretations of its "refugee" definition, despite its intuitively close association with cross-border climate migration.[154] That climate migration is a square peg for many legal holes indicates the legal and regulatory shape-shifting that climate change might force.

Climate change, its justice implications, and its legal context are complex and crosscutting. At this point, it is difficult to identify legal fields that climate migration does not affect. The reason is arguably obvious. All legal fields were developed during a period of relative stability vis-à-vis climate.[155] All laws and underlying principles are mutable and capable of evolution, at least in theory, but the climate back drop in which they developed was thought to be bound by immutable laws of nature. Accordingly, critiques of other areas of law relevant to climate migration are illuminating and necessary for assessing the ability of the law to withstand unceasing changes. In this regard, critiques of migration law, for example, are important to consider. In a recent and trenchant assessment of international migration law, Professor Jaya Ramji-Nogales suggests that this field of law is itself a chief contributor—if not the progenitor—of many contemporary migration and refugee crises.[156] Taking international refugee law as one example, Ramji-Nogales notes that it benefits only a select group of migrants who fit into its narrow definition. It also encourages risk-taking activity to enjoy its promised protections, often resulting in exacerbated crises. International migration law is dominated by the principle of *nonrefoulement*, which discourages the practice of returning asylum seekers to a country in which existing leaders are liable to persecute those individuals.[157] In order to avail oneself of the principle, however, a migrant must access state territory—likely, embarking on a risky and perhaps extralegal journey. Once accessing the preferred nation-state, the refugee or asylum seeker must articulate a valid claim to obtain lawful immigration status.[158] The current system, Ramji-Nogales argues, "creates the conditions that encourage mass flows of

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[153] William W. Buzbee, *The Regulatory Fragmentation Continuum, Westway and the Challenges of Regional Growth*, 21 J. L. & POL. 323, 356 (2005).

[154] *See supra* text accompanying notes 107–14.

[155] *See* discussion *supra* Introduction. *See also* Craig, *supra* note 22, at 17.

[156] Jaya Ramji-Nogales, *Migration Emergencies*, 68 HASTINGS L. J. 609, 609 (2017).

[157] *Id.* at 614.

[158] *Id.*

migrants to show up at the borders of Australia, Europe, and the United States."[159] Given the inherent uncertainty, disorder, and ad hoc nature of this kind of process, Ramji-Nogales asks whether migration emergencies—or "crises"—are surprising events or "the logical and foreseeable outcomes of the structural failures of the global migration system."[160]

There are at least two immediate concerns raised here, both relevant to climate migration. First, an arguably systemic flaw produces migration events, which decisionmakers label "crises." The term "crisis" is inadequate and inaccurate as it connotes a temporary or isolated incident. Second, the crisis lens also "obscures the complex and long term structural causes of international migration," namely poverty and underdevelopment, food insecurity, and natural disasters.[161] Migration "crises" related to climate change will likewise be neither temporary nor simple.

Given that established international migration law suffers from arguably fatal flaws, lawmaking relevant to climate related population movements would be especially important to conduct carefully. Cognizant of potential path dependence, lawmakers contemplating change will need to consider if a new framework's own internal logic unwittingly guarantees disorder. Further, climate change itself presents unique and unprecedented coordination challenges. Ramji-Nogales wistfully writes: "One can imagine a legal regime that anticipated migration flows and enabled safe and lawful movement for migrants of all types."[162] Indeed, the global community could make such a regime part of its belated response to climate displacement and climate-related cross-border migration.[163] First and foremost, however, Ramji-Nogales recommends an open discussion that "views the [current] law as simply one possible (and rather inadequate) method of addressing migrant flows rather than accepting current legal frameworks as foundational and compulsory."[164] These calls to jettison existing assumptions about the law

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[159] *Id.*

[160] *See id.* at 609. Further, Ramji-Nogales persuasively contends, "International law has constructed a deeply path-dependent approach to international migration that not only obscures systemic inequality but also consumes alternate conceptions of morality." *Id.*

[161] *Id.* at 624. Ramji-Nogales also notes the influence of cycles and structures of violence and, significantly, global power relations. *Id.*

[162] *Id.* at 614.

[163] *See id.* at 618 (arguing that "[h]ad more resources been devoted to anticipating and processing migration flows, [the EU, US, and Australia] might have created institutions capable of managing those flows without becoming overwhelmed. In other words, this is arguably a crisis created by infrastructure choices, not a crisis of absolute capacity."). It is important to note that during the most recent migration crisis, migrant flows constituted 0.2% of each of the populations of the E.U. and Australia, and 0.02% of the population of the U.S. *Id.* at 618. Given the relative size of cross-border migrant flows, better infrastructure choices can strengthen capacity. And, to the extent that climate introduces even greater numbers, which is plausible, planning or expanding capacity and the ability to manage a dynamic and increasing phenomenon is optimal. Finally, and perhaps most important, this kind of proactive planning is best able to incorporate the perspectives of the migrants themselves and ensure that states protect migrants' rights throughout the process of migration.

[164] *Id.* at 647–48.

are even more germane to the climate context, where they may help us avoid further entrenching the very assumptions that have brought the global community to the current climate precipice. From a climate justice perspective, avoiding repetition of the legal processes and assumptions that propel them is a key element of success.

III. State Shift and the Limits of Environmental Law

There is no analogue for the current state of nature. The enormity of the task to respond is difficult to appreciate even among those who intimately engage with climate science and climate law on a consistent basis. To date, domestic and international environmental law have been the primary legal domains for addressing such comprehensive change. Despite the global consequences, other areas of law are treated as irrelevant. Some practitioners actively understand themselves in opposition.[165]

The effect of this posturing is that domestic environmental law, constructed with the limited capacity to save the trees—and generally failing to ensure equitable outcomes—is now freighted with saving the forest.[166] Gonzalez similarly diagnoses international environmental law as a "field in crisis," as it currently confronts problems like climate change that are deeply

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[165] *See, e.g.*, Luca Enriques et al., *The Basic Governance Structure: Minority Shareholders and Non-Shareholder Constituencies*, *in* The Anatomy of Corporate Law: A Comparative and Functional Approach 93 (Oxford U. Press, 3d ed. 2017) (stating that the proper channel to address corporate impacts on environmental degradation is environmental law, not corporate law, and that "the use of legal rules and standards . . . to promote interests extraneous to the corporate form is, almost by definition, not corporate law, but the application to corporations–as legal persons–of norms from other fields of law"); David M. Ong, *The Impact of Environmental Law on Corporate Governance: International and Comparative Perspectives*, 12 European J. Int'l L. 685, 698 (2001) (quoting Nazli Choucri, *Multinational Corporations and the Global Environment*, *in* Global Accord: Environmental Challenges and International Responses 205, 247 (Nazli Choucri ed., 2003)) ("[G]lobal corporations, with few exceptions, have generally failed to develop a strategy for dealing with the environment."); *id.* at 701–02 ("The lack of an adequate international corporate environmental liability regime represents a major constraint in the ability of international environmental law to impose an environmental protection objective or goal on the corporate governance agenda.").

[166] For further exploration of this quite useful analogy, *see* Bosselman, *supra* note 85, at 2424. Bossleman argues,

> In essence, environmental law is hampered by a reductionist approach to its subject, *i.e.*, the environment or more precisely, the human-nature relationship. This relationship is misconceived because of the domination of certain philosophical and cultural traditions in European history. As a consequence, modern legislation to protect the natural environment has developed in a compartmentalized, fragmented, economistic, and anthropocentric manner.

Id. at 2425.

embedded in the existing economic order.[167] Consequently, "tinkering on the margins"[168] will not suffice.

A. Regime Shifts and Climate Change

We are on the precipice of a regime shift, assuming it is not already underway. A regime shift, also known as a state shift or critical transition, is a large, abrupt, persistent change in the structure and function of a system occurring when a critical threshold is crossed.[169] Researchers have documented these shifts in a wide and diverse range of systems including financial markets, social networks, and ecosystems.[170] Not all changes in structure or function are regime shifts. The change must affect the feedback structures of the system, which allow it to maintain its "emergent structure and function."[171] A regime shift is, in effect, "a change that affects the identity of the system."[172] Once a system is close to a threshold, even a small shock to the system can precipitate a shift in regimes. Most shifts, strikingly, are a "complete surprise" to the people living in or managing the ecosystem.[173] Notably—and distressingly—once a system shift has occurred, return to the previous regime is appreciably more difficult.[174] Climate change has the potential to trigger multiple ecosystem shifts, if it has not already.[175]

Unfortunately for the climate system on which we entirely rely, average global temperature is set to increase by at least 3° Celsius by the end of the century.[176] Without major emissions reduction, the increase in annual average global temperatures could reach 5° Celsius above preindustrial times by 2081.[177] According to the most recent peer reviewed research, international policymakers are relying on IPCC projections that underestimate how much

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[167] Gonzalez, *supra* note 33, at 234. Gonzalez notes that:

> Climate change and other ecological disasters will intensify the suffering of the millions of people in the global South who lack adequate access to environmental necessities, such as clean water, food and modern energy. However, this environmental injustice remains largely outside the purview of international environmental law. Instead, food, water and energy are regulated through a patchwork of legal instruments and private arrangements, many of which fall in the economic law field.

Id. at 234.

[168] *Id.* at 229.

[169] JUAN CARLOS ROCHA, REINETTE BIGGS & GARRY D. PETERSON, REGIME SHIFTS DATABASE, REGIME SHIFTS: WHAT ARE THEY AND WHY DO THEY MATTER? 1 (2014).

[170] *Id.*

[171] *Id.* at 2.

[172] *Id.*

[173] *Id.* at 3.

[174] See *id.* at 4.

[175] *See* Kopp et al., *supra* note 28, at 412–13.

[176] CLIMATE ACTION TRACKER, http://climateactiontracker.org/ [https://perma.cc/CS4N-84CG].

[177] D.R. Easterling et al., *Our Globally Changing Climate*, *in* CLIMATE SCIENCE SPECIAL REPORT: FOURTH NAT'L CLIMATE ASSESSMENT 35, 35, 42 (D.J. Wuebbles et al. eds., 2017).

the planet will warm.[178] Based on review of the most accurate climate models, Patrick T. Brown and Ken Caldeira find that there is a 93 percent chance that the planet will warm by more than 4° by the end of the century, whereas previous studies put those odds at an also discomfiting 62 percent.[179] Either way, far steeper greenhouse gas emissions reductions than previously calculated are required to avoid worst-case scenarios. Bleaker still, even with graver changes set to come it is possible that global emissions have already triggered a cascade of regime shifts in essential systems.

Moreover, continued global change will synchronously increase the risk, frequency, and intensity of multiple regime shifts across marine and terrestrial ecosystems.[180] Many regime shifts, such as climate change, can amplify the drivers of other regime shifts.[181] A study conducted by global sustainability researchers Reinette Biggs, Juan Carlos Rocha and Garry D. Peterson found that climate related drivers were shared across all currently observed regime shifts, increasing the expected risk of cascading shifts.[182] Further, "[m]ost drivers of global change are increasing along with exponential growth in the global economy."[183] Although over one-third of the regime shift drivers the researchers identified, including climate change and greenhouse gas emissions (deleterious to marine life, among other things), require international cooperation to manage, local and national decision-making can manage 62 percent of those drivers, including fishing and agriculture.[184] Unless rates of global change slow or reverse, however, these changes will overwhelm local management efforts on resilience, further underscoring the importance of a rapid shift in legal regimes.[185]

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[178] *See* Patrick T. Brown & Ken Caldeira, *Greater Future Global Warming Inferred from Earth's Recent Energy Budget*, 552 NATURE 45, 45 (2017). *See generally* Georgina Gustin, *The Most Accurate Climate Models Predict Greater Warming, Study Shows*, INSIDE CLIMATE NEWS (Dec. 6, 2017), https://insideclimatenews.org/news/06122017/climate-change-warming-forecast-worst-case-best-models-ipcc-study [https://perma.cc/NJ8G-FXR5].

[179] Brown & Caldeira, *supra* note 178, at 47.

[180] Reinette Biggs, Juan Carlos Rocha & Garry D. Peterson, *Regime Shifts in the Anthropocene: Drivers, Risks, and Resilience*, 10 PLOS ONE 1, 1 (2015) ("[M]any regime shift drivers are related to climate change and food production, whose links to the continued expansion of human activities makes them difficult to limit.").

[181] *See id.* at 8. Biggs, Rocha, and Peterson explain that:

> Cascading effects occur when i) two regime shifts share the same causes increasing their correlation in space or time, ii) when the occurrence of one regime shifts impact the drivers of another increasing the likelihood of a domino effect, and iii) when two regime shifts potentially activate broader feedbacks that interconnect their dynamics, a dynamic also known as cross-scale interactions.

Id.

[182] *Id.*

[183] *Id.* at 2.

[184] *Id.* at 8.

[185] *Id.* at 10. *See also* John Bender, *For Puerto Ricans Displaced by Maria, a First Christmas Away from Home*, NPR (Dec. 24, 2017, 8:15 AM), https://www.npr.org/2017/12/24/573166260/for-puerto-ricans-displaced-by-maria-a-first-christmas-away-from-home; *In Florida, Puerto Ricans Displaced by Hurricane Maria Struggle to Adjust*, CBS NEWS, (Dec. 5,

This article's appeal for rapid, parallel shifts in our legal regime is not made nonchalantly. The rule of law endures because it ensures predictability and resists "hasty change."[186] It is likely that some will view this kind of revolutionary talk as anathema.[187] The rule of law's commitment to the status quo, however, is exactly what makes the law as currently constructed a dangerous mismatch for advancing climate change and cascading concomitant effects. Regime shifts affect the "ecosystem services that society relies upon" and are therefore relevant to policy precisely because they are difficult to anticipate and "often hard or even impossible to reverse."[188] Steeped in research on critical transitions, Briggs, Rocha and Peterson acknowledge the "non-trivial challenge for governance" their research presents. Yet they still maintain that "[e]ven heroic actions, such as halting climate change or halting agricultural expansion, if not combined with other actions, will be insufficient to avoid most regime shifts."[189] At this moment in time, heroism and predictability are fundamentally incompatible. And, to be clear, generating better law to operate within and to the benefit of the current legal infrastructure will not suffice.

B. The Limits of Environmental Law

The underlying complexity, interconnectedness, and inherent uncertainty of climate change, of 21st Century migrations,[190] and of climate-induced migration altogether[191] further challenge a legal system that tends to separate, differentiate, and ossify.[192] Legal thought is attracted to conceptual structuring,[193] which produces the taxonomies, linear views of causation, and

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2017, 7:48 AM), https://www.cbsnews.com/news/puerto-ricans-relocate-to-florida-face-difficult-transition/.

[186] *See, e.g.*, Humphreys, *supra* note 21, at 146 ("The rule of law. . . is—and is intended to be—a bulwark against hasty change, a guarantor of the status quo, an inherently conservative principle: it is opposition to revolution and resistance to evolution.").

[187] Though alacrity is in part necessary because of the slow pace of response to systemic inequality and environmental degradation.

[188] ROCHA ET AL., *supra* note 16920, at 1. Rocha et al. also explain that "[i]n order to restore the system to a previous regime (or transform the system to an entirely new regime) one has to manage key drivers (usually slow variables), often needing to bring them to a point well below the critical tipping point at which the regime shift originally occurred." *Id.* at 6 (citation removed).

[189] *Id.* at 8.

[190] In addition to the number of fields of law that might be at play in a migration scenario, scenarios of migration themselves are deeply varied. KÄLIN & SCHREPFER, *supra* note 11, at 20 (noting that like migration, generally, migration as adaptation to climate change can be long- or short-term, seasonal or permanent, internal or cross-border and may include one family member or whole families).

[191] *See generally* Morinière & Hamza, *supra* note 103 (noting the complexity of the issue as well as the state of the global discourse on environmentally-induced migration and how that complexity impedes forward movement on both research and policy fronts).

[192] *See* discussion of Grear and other climate justice scholars, *supra* Part I.

[193] *See* discussion *supra* Part I. *See also* Grear, *supra* note 26; Humphreys, *supra* note 21; Bosselman, *supra* note 85.

territorial jurisdictional parameters that Grear critiques.[194] The law reflects that preference for clear domains while tending to retard effective responses to systemic challenges, like structural racism or environmental change. Environmental law exemplifies this ill-fitting tendency to manage complex natural systems with fixed and isolated law and policy. Klaus Bosselman describes this as the compartmentalization and fragmentation of the law.[195] Compartmentalization, according to Bosselman refers to the conceptual isolation of the environment from other policy areas.[196] International environmental law, for example, manages the global environment while the more impactful and degrading laws and principles of international economic law have avoided sufficient amendment.[197] That compartmentalization has real-world impact by rendering environmental law and policy irrelevant to, for example, commercial law or broader and more consequential public policy.[198] Fragmentation describes a focus on specific aspects of the environment "rather than its value as an integrated whole."[199] In other words, policymakers literally lose the forest for the trees.[200]

Fragmentation and compartmentalization also impede rights claims.[201] First, few international human rights agreements explicitly recognize a close link between human rights and the environment and even fewer recognize a right to a healthy environment.[202] However, climate change is a threat with

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[194] *See* Grear, *supra* note 26, at 105.

[195] Bosselman, *supra* note 85, at 2431–33. Climate migration implicates multiple legal fields at multiple scales, including international laws (development, human rights and humanitarian, refugee), domestic laws (property, immigration, national security, environmental), and hybrid laws (migration and asylum, indigenous rights, climate law).

[196] *Id.* at 2431–32.

[197] *See, e.g.*, Alam & Razzaque, *supra* note 66, at 623.

[198] *See, e.g.*, Bosselman, *supra* note 85, at 2425 (describing the way that governments treat the environment and stating, "[t]here are Ministries for the Environment, but it is the Treasuries that determine public policy. There are environmental laws, but they are isolated from commercial laws. And there are Law Schools with environmental law programmes, yet 80% of the curriculum has no environmental component at all.").

[199] *Id.* at 2432. *See also* Alejandro E. Camacho, *Adapting Governance to Climate Change: Managing Uncertainty Through a Learning Infrastructure*, 59 EMORY L. J., 2009, at 26-27 (citing William Buzbee's cataloguing of regulatory fragmentation that pervades governmental resource management using taxonomic classifications such as vertical, horizontal, institutional, and temporal); Buzbee, *supra* note 157, at 356.

[200] Bosselman, *supra* note 2431. A further example of this are efforts to remediate near shore marine health without considering upland land use policy. *See e.g.*, Maxine Burkett, *Indigenous Environmental Knowledge and Climate Change Adaptation, in* CLIMATE CHANGE, INDIGENOUS PEOPLES: THE SEARCH FOR LEGAL REMEDIES 96, 115–117 (Randall S. Abate & Elizabeth Ann Kronk eds., 2013) (discussing the effect of Hawaii's historical management of water resources and climate change adaptation).

[201] In the context of the environment and environmental law, Bosselman defines compartmentalization as the "boxing-off" of the environment from other policy areas. Fragmentation refers to a focus on a specific aspect of the environment rather than its value as an integrated whole. Bosselman, *supra* note 85, at 2432.

[202] Christina Voigt & Evadne Grant, Editorial, *The Legitimacy of Human Rights Courts in Environmental Disputes*, 6 J. HUM. RTS. & ENV'T 131, 133 (2015). Only two regional human rights treaties articulate environmental rights—the African Charter of Human and Peoples' Rights and the Additional Protocol to the American Convention on Human Rights. *Id.* at 133.

impacts that may result in or amplify specific violations of human rights, including the rights to life, health, and property.[203] As Aled Dilwyn Fisher and Maria Lundberg explain, the traditional rights paradigm constructs a "rigid link" between rights-holders and states as duty-bearers, which contrasts with the very "complex" and "transnational geographies" that characterize ecological crises like climate change.[204] This more narrow focus also affects procedural elements of human rights law, impacting standing and access to human rights courts.[205] Further, the very strategies to achieve relief or redress employed privilege "'actor-oriented' judicial strategies" focused on individuals as opposed to more "socio-political 'structure-orientated' approaches."[206] The latter is critically important to historically disadvantaged communities, because actor-oriented approaches can obscure the relationship between one's relative responsiblity and capability with the institutional structures that have initiated and sustained those positions.[207]

The novel questions climate migration introduces will not ease the deep analytical work left for existing legal frameworks.[208] In addition to rights, for example, how do existing frameworks satisfactorily resolve the question of the international community's responsibility to avoid marginalization and disenfranchisement of individuals and communities on the move? How will governments assist displaced communities in their desire to stay in place, even if that preferred decision reaps further and far-reaching environmental degradation? What if borders and the conventional Westphalian construction of the nation-state are deemed too significant a hurdle for effective problem-

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The article—and entire special edition of the journal—considers "the appropriateness of transforming environmental protection issues and the intrinsic value of nature into human rights questions." *Id.* at 134. *See also* Symposium, *The Legitimacy of Human Rights Courts in Environmental Disputes*, 6 J. HUM. RTS. & ENV'T 131 (2015).

[203] CHRIS WOLD, DAVID HUNTER & MELISSA POWERS, CLIMATE CHANGE AND THE LAW 426 (1st ed. 2009). *See generally* Maxine Burkett, *Legal Rights and Remedies*, *in* THE LAW OF ADAPTATION TO CLIMATE CHANGE: U.S. AND INTERNATIONAL ASPECTS 185 (Michael Gerrard & Kartina Kuh eds., 2012).

[204] Aled Dilwyn Fisher & Maria Lundberg, *Human Rights' Legitimacy in the Face of the Global Ecological Crisis—Indigenous Peoples, Ecological Rights Claims & the Inter-American Human Rights System*, 8 J. HUM. RTS. & ENV'T. 177, 180, n.8. *See generally* Burkett, *supra* note 52.

[205] Voigt & Grant, *supra* note 201, at 134–35, n.12 (noting the European Court of Human Rights' definition of rights-holders as being only those "'affected' by an activity detrimental to the environment"). The retroactive approach to environmental harm and the scope of remedy in human rights courts is also suboptimal.

[206] Fisher & Lundberg, *supra* note 204, at 180, n.8. Fisher and Lundberg further argue that the "continued normative legitimacy of human rights hinges on reconceiving rights as tools for contesting unjust structural arrangements driving socio-ecological crises." *Id.* at 185. One can convincingly apply this recommendation to the current law and policy-making relevant to climate-induced migration.

[207] *See, e.g.*, Burkett, *supra* note 52. *See also* Burkett, *Reconciliation and Non-Repetition*, *supra* note 58.

[208] For a few of these questions in the context of "disappearing states," see Skillington, *supra* note 130.

solving and are rendered outmoded as a result?[209] How would we answer that question? Is it heresy to even ask it?

In any event, it seems fair to say that environmental law, bound and atomized in the compartmentalized construction of the law, cannot do the work alone.[210] Indeed, even institutional players like Connie Hedegaard, the former European Commissioner for Climate Action in the European Commission, has stated that "climate change can no longer be understood as a purely 'environmental issue' because the economic and social effects of the problem will define the future."[211] Indeed, the certainty of climate change and disruption may be the most we actually know about the future.

IV. The Non-Hypothetical State of Nature

In light of what we do not know about how climate change will disrupt existing socio-political systems and what we cannot know about the nature and content of so-called "climate surprises," I contend that we are behind an actual veil of ignorance. Further, if we are tipping into a new state or regime, as studies cited above suggest, acknowledging that we are behind a veil would aid in efforts to identify more appropriate principles to guide our jurisprudence. Although, this article cannot and does not seek to erect a complete theory of justice, it does engage heretofore neglected or discarded principles that have a longer and richer history than the cultural norms that undergird our current legal system.[212] These are principles that, if resurrected after a process of reflection, would cease to silo the environment and fair

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[209] *See, e.g., id.* at 11. Skillington explains,

> [T]he challenge is to accommodate the changing character of the sovereign state landscape by granting legal recognition to alternative forms of statehood. There are a number of issues at present preventing a broad support for any changes in this direction. Perhaps the most obvious is the over-assertion of a traditional territory-nation state nexus where state identity is still heavily bound up with the historical associations that have developed between particular land holdings and peoples. Because of historical ties, resource rights are thought to be owed more to fellow co-nationals than to humanity as a whole and state borders offer clear distinctions between what are commonly seen as "politically relevant" resource inequalities (those occurring within the boundaries of a specific territorial state) and "politically irrelevant" inequalities (for instance, those occurring between states in terms of the distribution of the burdens of climate change).

Id.

[210] Indeed, no single area of law is equipped to complete the task. As Humphreys states, "The law – human rights law, trade law – is not ready-made to deliver climate justice: it must evolve. A question that arises is whether it can." Humphreys, *supra* note 21, at 141. Humphreys goes farther, finding that law "is not merely inadequate, but – in a complex sense – counterproductive because of its ideological and historical formation." Grear & Gearty, *supra* note 84, at 1–7.

[211] Grear & Gearty, *supra* note 84, at 2. This includes future economic growth in the twenty-first century.

[212] *See* discussion *infra* Section IV.C.

outcomes and instead understand them as indispensable factors in all facets of our jurisprudence moving forward.

A. The Rawlsian Exercise

Not without controversy and contestation, John Rawls' *A Theory of Justice* and the veil of ignorance that he employs remain relevant to theoretical discourse more than forty years after initial publication. Conjuring a seemingly impossible hypothetical,[213] the veil was nonetheless useful for its promise to inaugurate more just systems—so useful that Rawls recognized that something like it must have occurred to many. In essence, to remove the effects of information that participants might use to their advantage (and therefore adulterate a more pure and authentic conception of justice) Rawls assumes that those engaged in the dialogue on justice ("the parties" or dialogue participants) are situated behind a veil of ignorance.[214] He explains, "They do not know how the various alternatives will affect their own particular case and they are obliged to evaluate principles solely on the basis of general considerations."[215] All parties are in the original position and are deemed equal as moral persons. In that position no one knows his or her place in society, specific assets, abilities, intelligence or strength. Further, class position, social status, and presumably race, gender, and ethnicity are also unknown. And, "more than this," according to Rawls, "the parties do not know the particular circumstances of their own society."[216] In the original position, each person has no information about the generation to which they belong. It may look like the present, or 2050 or (worse still from a climate perspective) after 2100.[217] The parties must choose principles, and the consequences of those principles, that each is prepared to live with irrespective of the generation they occupy.[218] The only fact known is that the society is subject to the circumstances of justice conceived and "whatever this implies."[219]

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[213] RAWLS, 1971 ed., *supra* note 30, at 12 ("This original position is not, of course, thought of as an actual historical state of affairs, much less as a primitive condition of culture. It is understood as a purely hypothetical situation characterized so as to lead to a certain conception of justice."). *See* JOHN RAWLS, A THEORY OF JUSTICE 104 (Oxford U. Press, rev. ed. 1999) (hereinafter RAWLS, 1999 ed.) ("So while the conception of the original position is part of the theory of conduct, it does not follow at all that there are actual situations that resemble it. What is necessary is that the principles that would be accepted play the requisite part in our moral reasoning and conduct.").

[214] RAWLS, 1999 ed., *supra* note 213, at 118.

[215] *Id.*

[216] *Id.*

[217] *See generally* CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT 1, *supra* note 5, at 4.

[218] On consequences, Rawls states, "All ethical doctrines worth our attention take consequences into account in judging rightness. One which did not would simply be irrational, crazy." RAWLS, 1999 ed., *supra* note 213, at 26.

[219] *Id.* at 119.

The original position behind the veil is peculiarly relevant to the current climate crisis. The original position is a thought experiment that allows the parties to conceive of the basic principles of justice with each one knowing that, once the veil is lifted, each could end up in the worst off position. Consequently, whatever principles of justice implied or entailed by the original position would ensure, ideally, that the worst off would be in the best feasible position.[220] In a contemporary twist (given the current state of nature) the precise degree of harm, risk, or opportunity climate change will introduce, once the veil is lifted, is also unknown. Are your Marshallese, the CEO of a multinational oil and gas company, or a traditional knowledge holder? Behind the climate veil, what would each one say is the most feasible position for the "worst off person" to occupy that would still be considered just?

In many respects, the current impasse in settling on and advancing truly effective climate policy is because, generally speaking, wealthy and higher emitters are not acting to foreclose the gravest impacts that poorer, lower emitters experience. This is true across time and space.[221] Arguably, if parties are behind a veil with respect to their individual identities and, therefore, ignorant of their relative advantages while cognizant of the fact that they might emerge from behind the veil in the less favored position, then the dialogue participants will more likely advance just and assertive theories, principles, and structures that are unadulterated by their positions of power and adequately responsive to changes in climate.

B. Alternative Climate Futures and the New Veil

Relevant to present purposes, Rawls takes for granted that those behind the veil "know the general facts about human society."[222] Those facts, for Rawls, include an understanding of political affairs and principles of economic theory as well as the basis of social organization and the laws of human psychology. At base, individuals are presumed to know whatever general facts affect the choice of justice principles. Accordingly, the physics of climate change, systems instability and cascading regime shifts, and the role and consequences of certain principles of economic theory in relation to the current state of nature would also be known. This set of information is not barred. As Rawls affirms: "There are no limitations on general information, that is, on general laws and theories, since conceptions of justice must be adjusted to the characteristics of the systems of social cooperation which

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[220] I thank Dr. Kyle Powys White for his invaluable insight on the article's redeployment of Rawls' theory and the implications of the thought experiment on the original position in a climate-constrained world.

[221] *See generally* Stephen M. Gardiner, *A Perfect Storm: Climate Change, Intergenerational Ethics & the Problem of Moral Corruption*, 15 ENVT'L VALUES 397 (2006).

[222] RAWLS, 1999 ed., *supra* note 213, at 119.

they are to regulate, and there is no reason to rule out these facts."[223] Of course, however, that is all dialogue participants can know in the climate change context, as the specifics are uncertain and contingent on concerted mitigative and adaptive action—or lack thereof.

The principles derived from this exercise would moderate all further agreements and specify the kinds of social cooperation in which individuals might engage and the forms of government established.[224] Importantly, this article would not endorse—because principles of justice would not flow from—cabined notions of reason, rationality, and furthering of one's own interests.[225] This is a sharp and definitive departure from Rawls and his philosophical tradition. It is important to stress, in light of the preferred approaches discussed below,[226] that this tradition has developed within a very specific subset of Western cultural expression and its applicability across cultures is the subject of longstanding debate.[227] It is also important to note that, with respect to economic rationality, environmentally destructive reasoning has shaped both the capitalist and socialist world and established the

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[223] *Id.*

[224] *Id.* at 10.

[225] *Id.* (arguing that the principles of justice are the principles "that free and rational persons concerned to further their own interests would accept in an initial position of equality as defining the fundamental terms of their association."). For related and very well-developed critique, see SEN, *supra* note 31. For a powerful engagement of Sen's critique in the context of climate disaster law, *see* LYSTER, *supra* note 31, at 100–03. This philosophical tradition is also a foundational assumption of Garrett Hardin's tragedy of the commons. Bosselman offers incisively:

> The most interesting aspect of Hardin's essay is the assumed inability of the individual actors to look beyond the here and now. They consider it rational to maximize individual gain and would not question such rationality even if presented with the information that the accumulation of individual pursuits is disastrous for everyone. They are locked into a system of self-destruction. The question is, of course, how rational it really is to maximize individual gain at the expense of others and everything.

Bosselman, *supra* note 85, at 2426.

[226] *See* discussion *infra* Section IV.C.

[227] *See* Thomas Dietz & Rachael Shwom, *Culture, Environmental Risk Perception and Behavior*, POPULATION-ENV'T RES. NETWORK 2–3 (May 17, 2017), https://www.population-environmentresearch.org/pern_files/statements/PERN%20Cyberseminar2017%20Dietz%20and%20Shwom.pdf [https://perma.cc/BZC5-LM3P] (noting that the rational actor model was "developed to describe market interactions in Western capitalist societies. There is a very long-standing debate about the degree to which it applies cross-culturally"). For an assessment based on indigenous perspectives, see VAL NAPOLEON, NAT'L CTR. FIRST NATIONS GOVERNANCE, THINKING ABOUT INDIGENOUS LEGAL ORDERS 6–7 (2007). Napoleon explains:

> There is an important difference between, on the one hand, believing that the laws themselves are spiritual and sacred, and outside human control, and on the other hand, understanding that all law, including western law, is founded on a world view (i.e., how we see human beings, non-human life forms, and the spirits and the universe). It is hard to perceive this in western law because it is always described as "normal" and "rational." But all law, including western law, is based on an understanding of humans (i.e., individual, rational, competitive, etc.) and of the larger world (i.e., how humans relate to non-human life forms).

Id.

philosophical grounds for, among other things, dualism, anthropocentrism, and materialism, and their deleterious effects in multiple spheres, from local livelihoods to global climate.[228]

As mentioned, this article does not seek to forward a theory of justice as many climate justice colleagues call for in more or less detailed fashion.[229] Instead, it seeks to reveal and make clear the distinct, non-hypothetical veil and galvanize a process to build a new theory and identify the buttressing principles.[230] Even though a counter-theory is not forthcoming here, the geophysics and geopolitics of climate change militate in favor of employing core ethical notions that might be at play. Instead of unwavering faith in rationalism, it endorses notions of ecological integrity and ecological bottom lines, in furtherance of humanity's shared interest and in light of the state of the world and the gravity of the shared prognosis. Decision-makers at all scales would act in furtherance of foundational maxim that humanity is one expression of nature defending itself, today, against the excesses and necessary byproducts of the structural inequities described above. This process would not have a reparative function with respect to specific injuries already experienced; it is forward-looking by its own parameters. A parallel process for reparation is also in order but, as to particular remedies, is distinct. A guarantee of "non-repetition", that is a commitment to create structures or processes that foreclose the ability for a wrongdoer to repeat offending acts, could be woven into the fabric of a new theory, however.[231]

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[228] *See* Bosselman, *supra* note 85, at 2430.

[229] General calls include, Grear, *supra* note 26; Humphreys, *supra* note 21, at 134, 137–39 (quoting WALTER BENJAMIN, *Theses on the Philosophy of History*, *in* ILLUMINATIONS 253, 261–64 (1969)) (engaging the notion of jetztzeit—a time "that is ripe with revolutionary possibility, time that has been detached from the continuum of history . . . time at a standstill, poised [and] filled with energy"—and noting that "precisely because some of the destruction we are wreaking right now is 'irreversible', we are not well equipped to imagine what form 'justice' might take in that distant time. The best we can do, then, might be to build institutions capable of dealing justice."); Klaus Bosselman, *A Vulnerable Environment: Contextualising Law with Sustainability*, 2 J. HUM. RTS. & ENV'T 45, 45 (2011) ("This article makes the case for an ecological approach to law, one aiming for social transformation rather than environmental mitigation."); Gonzalez, *supra* note 33, at 239 ("Without a fundamental restructuring of international economic and environmental law, a just and sustainable planet in the Anthropocene epoch is impossible."). Though distinct in form and function, Rosemary Lyster makes a more detailed and related call for a deliberative process in *Towards a Global Justice Vision for Climate Law in a Time of 'Unreason'*, 4 J. HUM. RTS. & ENV'T 34 (2013) (arguing that there is an urgent need for a process of impartial public reasoning and discussion on the issue of climate change to emerge, so as to limit the imperatives of national interest and move towards a global justice approach).

[230] This is less controversial for Sen if at all. The "reflective equilibrium" that Rawls advances and grounds the theory of justice is arguably close to Sen's endorsement of public deliberation. *See* Stefan Bird-Pollan, Book Review, 2 PUB. REASON 105 (2010) (reviewing AMARTYA SEN, THE IDEA OF JUSTICE (Harv. U. Press 2011)).

[231] *See* Burkett, *Climate Reparations*, *supra* note 58, at 511; Burkett, *Reconciliation and Non-Repetition*, *supra* note 58, at 100. A commitment by the wrongdoer not to repeat the offending act, also known as the "guarantee of nonrepetition," is indispensable for good faith repair. Embracing climate-as-geopolitics will more likely ensure "non-repetition" of the systems that delivered this outcome by the very solutions crafted to respond to it today.

The aim for invoking a Rawlsian exercise is to work out a theory of justice that is relevant to contemporary social and ecological demands that endure well into a climate-defined future. To succeed, it would, at the very least, need to provide an affirmative and viable alternative to the current socio-economic and legal structures.[232]

C. *Embracing Exiled Rights Discourses: A View from the Periphery*

> *A theory however elegant and economical must be rejected or revised if it is untrue; likewise laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust.*
>
> — *John Rawls*[233]

To produce a theory of justice ripe for the task at hand, certain discourses that have been relegated to the periphery as well as unresolved rights claims are especially relevant—and potentially transformative.[234] These discourses have long provided comprehensive critiques of the current socio-economic and legal order. They also reflect centuries- or even millennia-old principles that support frameworks of justice and engage the needs of the subaltern as well as the ecological systems to which all societies and their members are inextricably linked. This section briefly explores three of these discourses: indigenous epistemologies and legal orders, earth jurisprudence, and the discourse and hopeful contestation at the intersection of earth jurisprudence and environmental justice.

1. *Indigenous Legal Orders*

With the need to adapt to climate change, local governments and agencies have made efforts to explore and engage traditional or indigenous environmental knowledge for resource management.[235] This reengagement has primarily sought to extract specific management practices and deploy them in an ad hoc manner, without any meaningful engagement of indigenous worldviews. These worldviews deserve attention.

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[232] This is important practically and dialectically. A coherent and comprehensive theory of justice and accompanying principles is necessary to meet the demands of a changing climate. They are also needed as strong and meaningful retort to naysayers who claim that climate justice conceptions of society are idealistic, unpersuasive, or impracticable.

[233] RAWLS, 1971 ed., *supra* note 30, at 3.

[234] For one relevant explication of the relationship between justice and rights, see *id.* at 4 ("A set of principles is required for choosing among the various social arrangements which determine this division of advantages and for underwriting an agreement on the proper distributive shares. These principles are the principles of social justice: they provide a way of assigning rights and duties in the basic institutions of society and they define the appropriate distribution of the benefits and burdens of social cooperation.").

[235] *See* Burkett, *supra* note 200 , at 97–98. *See also* Anthony Moffa, *Traditional Ecological Rulemaking*, 35 STAN. ENVT'L. L. J. 101, 110 (2016).

Here, the term "indigenous" is used to describe the original or first peoples of any country.[236] For some "knowledge" necessarily includes spirituality, relationships with the land and other family members, oral traditions, storytelling, and ceremony.[237] Accordingly, the term "indigenous environmental knowledge" is used to describe a system of knowledge, practice, and belief that describes the relationship of living beings and their environment. This system has evolved through tradition as well as adaptive processes over time and has passed from generation-to-generation by cultural transmission.[238]

Indigenous knowledge, therefore, often contrasts with western or scientific knowledge in at least three ways.[239] Some indigenous peoples develop and cultivate environmental knowledge through hands-on experience.[240] Further, the knowledge is embedded in culture and is unique to specific locations. As a result, it is dynamic and diverse within and between societies and generations.[241] Finally, it is holistic. It is a way of life and a worldview.[242]

Of course, because of its dynamic nature, it is impossible—and unwise—to suggest that the term "indigenous environmental knowledge" can reliably describe all indigenous systems of knowledge, practice, and belief.[243] For example, for Pacific Islanders there is no one "cosmology" that "defines the nature of the universe or atmosphere."[244] Similarly, Rebecca Tsosie explains that the diversity among Native American nations makes defining an "indigenous land ethic," for example, difficult.[245] Indigenous views on the environment are not necessarily uniform or in consensus, according to Tsosie, and each nation has a "complex worldview with a unique understanding of the environment."[246] Further, reinforcing the notion that

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[236] Sandra Styres et al., *Walking in Two Worlds: Engaging the Space Between Indigenous Community and Academia*, 33 CAN. J. OF EDUC. 617, 619 (2010).

[237] Justin Gilligan et al., *The Value of Integrating Traditional, Local and Scientific Knowledge*, *in* CLIMATE CHANGE: LINKING TRADITIONAL AND SCIENTIFIC KNOWLEDGE 4 (Rick Riewe & Jill Oakes eds., 2006).

[238] This definition is derived from definitions of traditional knowledge used by Gilligan et al. and Fikret Berkes, Johan Colding & Carl Folke; Berkes et al., *Rediscovery of Traditional Ecological Knowledge as Adaptive Management*, 10 ECOLOGICAL APPLICATIONS 1251, 1252 (2000).

[239] Bosire Maragia, *The Indigenous Sustainability Paradox and the Quest for Sustainability in Post-Colonial Societies: Is Indigenous Knowledge All that is Needed?*, 18 GEO. INT'L ENVTL. L. REV. 197, 202–03 (2006).

[240] *Id.*

[241] *Id.*

[242] *Id. See also* Berkes et. al, *supra* note 238, at 1252.

[243] VAL NAPOLEON & HADLEY FRIEDLAND, INDIGENOUS LEGAL TRADITIONS: ROOTS TO RENAISSANCE 2, 226 (Markus D. Dubber & Tatjana Hörnle eds., 2014) ("[I]t can be challenging to talk broadly about Indigenous legal traditions without grossly over-simplifying them or resorting to sweeping pan-Indigenous generalities").

[244] Melissa L. Finucane, *Why Science Alone Won't Solve the Climate Crisis: Managing Climate Risks in the Pacific*, ASIA PACIFIC ISSUES, Aug. 2009, at 3.

[245] Rebecca Tsosie, *Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics, and Traditional Ecological Knowledge*, 21 VT. L. REV. 225, 268 (1996).

[246] *Id.* at 246, n.108.

Indians live in static harmony with nature in a manner that has been and will always be peaceful and serene, entrenches a ubiquitous stereotype that risks essentializing the American Indian identity and experience.[247] Indeed, not all traditional systems of practice and belief were ecologically adaptive from their inception—they were adaptive by definition, changing over time with the existing conditions.[248]

In spite of the above, there are "some essential similarities"[249] among indigenous worldviews regarding the environment that are relevant and distinct from contemporary, predominantly Western approaches.[250] Regarding Pacific Islanders, it is helpful to recognize that for many there is a shared view that the natural and spiritual worlds are both important.[251] Further, interaction with their local environments has yielded deep environmental knowledge that, coupled with cultural beliefs, has formed models of how the natural world works—and how humans work best in accord.[252] Ecosystem and watershed management practices in the Pacific Islands, for example, demonstrate the holistic approach that is common across Polynesian, Micronesian, and Melanesian cultures.[253] Again, most relevant to this discussion, the indigenous wisdom vis-à-vis the environment is at least similar in its fundamental difference from Western understandings of the environment, which today tend toward reductionism.[254] In light of the current state of nature, indigenous scholars, like Val Napoleon and Hadley Friedland, remark that it is no wonder many hope that indigenous legal traditions, as expressions of worldview, have something positive to offer to the current discourse in contrast to the predominant sociolegal structures.[255] Those traditions, though, have not survived the ongoing impacts of colonialism in a pristine

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[247] *Id.* at 227.

[248] Berkes et. al, *supra* note 238, at 1252 (explaining that exaggerated claims on behalf of traditional ecological wisdom need a "reality check"). *See also* Maragia, *supra* note 239, at 202, 219 (questioning the belief that most indigenous societies were sustainable and suggesting that indigenous knowledge could boost sustainable development if de-essentialized, among other things).

[249] Tsosie, *supra* note 245, at 246 n.108.

[250] *Id.* at 268.

[251] Finucane, *supra* note 244, at 3.

[252] *Id.*

[253] The Hawaiian ahupua'a, the tabinau of the Yap, the vanua of Fiji, and the puava of the Solomon Islands suggest a deep similarity in mountain-to-sea land and water resource management. Berkes et al., *supra* note 2, at 1255 (explaining that the four terms refer to generically similar watershed-based management systems).

[254] Berkes et. al, *supra* note 238, at 1252. *See also* Tsosie, *supra* note 245, at 268 (explaining that "these similarities are useful for comparative discussion of Euro-American land ethics"); Moffa, *supra* note 235, at 110 (arguing "whether or not policymakers agree wholeheartedly with [the assessment that indigenous knowledge of environmental planning far surpasses the scientific analysis of dominant Western societies], they must at least acknowledge that the inherent complexity of ecosystems has proved a poor match for reductionist science that takes the form of controlled experiments."). This mismatch, according to Moffa, evinces the potential utility of traditional ecological knowledge that, "with its holistic approach, might be able to offer insights into complex, nonlinear systems." *Id.* (citation omitted).

[255] NAPOLEON & FRIEDLAND, *supra* note 243, at 2. Napoleon and Friedland use "Indigenous legal traditions" to refer to Indigenous legal protocols and laws.

and undamaged state. A thoughtful engagement of core principles by dialogue participants, however, might provide a useful and viable counterweight to the current fragmented and compartmentalized legal infrastructure.

2. *Earth Jurisprudence and the Ecological Bottom Line*

Climate change is the result of a very particular way of doing business. It is the massive externality of a chosen political economy.[256] Whereas the result was not intended, the tendency to isolate or elide the "environment" or "nature" and climate in our economic calculus has been predominant and deliberate.[257] Earth Jurisprudence, which is a field of law that seeks to give greater consideration to nature in lawmaking, may be particularly instructive. This alternative approach counsels in favor of aligning sociolegal structures with the ecological bottom line by identifying and adhering to measures that reflect a fundamental understanding of ecological limits.

Some legal scholars have already offered up and forwarded legitimate and persuasive ecologically-based critiques and amendments that are worth consideration. Klaus Bosselman's work on the reductionist approach to nature and the environment—and, by extension—environmental law, is revelatory for the uninitiated reader.[258] In short, environmental reductionism describes "a compartmentalized, fragmented, and anthropocentric idea of the environment."[259] The effect of the dominance of the environmental reductionism is that "it nurtures a mindset of total human dominance over, and relative independence from, nature, in which 'nature' becomes 'the other' and is constructed as inferior, functioning as little more than raw material for economic-technological progress."[260] Fragmentation of the environment is pervasive in environmental law throughout the world, with a few notable exceptions.[261] Bosselman concedes that this is defensible in that laws need to be specific and enforceable on a case-by-case basis. An overall lack of a foundational law that recognizes and affirms the environment as the foundation of life and the integrity of ecological systems as non-negotiable, however, is deeply consequential and arguably has brought us to the brink.[262]

In order for a reflective and deliberative process to succeed from a climate justice perspective it would resist the compartmentalization of environmental, sociopolitical, and economic processes and policies. Indeed, as Bosselman asserts—and consistent with conceptions of Earth Jurisprudence—compartmentalization is a deeply rooted cause of the current crisis.

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[256] *See* Burkett, supra note 52.

[257] *See generally* Bosselman, *supra* note 85; Bosselman, *supra* note 229, at 48.

[258] *See generally* Bosselman, *supra* note 85.

[259] *Id.* at 2431.

[260] Bosselman, *supra* note 229, at 48.

[261] *See* discussion *supra* Section III.B.

[262] Bosselman, *supra* note 85, at 2438. "History, science and ethics," Bosselman reminds, "all point to the same rather simple idea: any form of development must respect ecological boundaries to avoid decline or collapse." *Id.*

Earth Jurisprudence recognizes the "interconnectedness of Earth's natural systems, the inherent rights and value of nature, and the dependence of humanity on all living beings on a healthy Earth."[263] Consistent with Earth Jurisprudence, Bosselman reminds that "nature" is a cultural construct and that "Western ontology, with its dichotomy between nature and culture, is very different from the non-Western perception of complementarities."[264] Yet that explication may not be sufficient because principles of complementarity, though admittedly subordinated, have organic roots in alternative iterations of Western ontology.[265] All of this is relevant to the current discussion because it suggests that theories at the periphery, oft-derided as idealistic and impracticable, have a rich and universal history worth resurrecting.

Earth Jurisprudence might emerge from the periphery as it fundamentally presupposes that human societies' viability and ultimate ability to flourish are possible if humans understand themselves as part of an interconnected network. It does not reduce nature to commodity for human use and does not support the privileging of the rights of corporations, for instance, over and above the rights that can secure ecological integrity for all humans and non-humans. The notion that the trade regime is the predominate force in the international legal system while the climate regime, despite the existential relevance of the subject matter, is sidelined and struggling is inconsistent with this philosophy and, perhaps, common sense. That the trade regime can comfortably ignore the impacts of climate change is even more striking and underscores the profoundly deleterious effects of a fragmented and anthropocentric jurisprudence. Further, the pro-endless growth paradigm is fundamentally incompatible with deeply rooted mandates to live within ecological limits. Employing an ecological bottom-line encourages diversity in human governance, embracing cultural pluralism and indigenous knowledge, among other things. A theory of justice and underlying principles would benefit greatly from this re-orientation. A rigorous exploration of the component governance frameworks and institutions that could flourish would aid in delivering this philosophy of law and governance from detracting (and distracting) cries of utopian delusion.[266]

Accessing and engaging this philosophy is not completely far-fetched. Evidence suggests that relevant and related wisdom is embedded in all cultures including the West. Bosselman notes that by the mid-1800s, "living from the yield, not from the substance" was state of the art knowledge.[267]

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[263] *See* CTR. FOR EARTH JURIS., HTTP://WWW.EARTHJURIST.ORG [https://perma.cc/T84Y-FBCU]; First National People of Color Environmental Leadership Summit, *Principles of Environmental Justice* (1991) (hereinafter *Principles of Environmental Justice*], https://www.ejnet.org/ej/principles.html [https://perma.cc/62DV-FME5].

[264] Bosselman, *supra* note 229, at 48.

[265] *Id.*

[266] Maxine Burkett, *Climate Disobedience*, 27 DUKE ENVT'L L. & POL'Y F. 1, 6–10 (2016).

[267] Bosselman, *supra* note 85, at 2437 ("The fact that the industrial revolution ignored this knowledge does not render it useless, obviously. It only meant that the idea of sustainability

Indeed, Western conceptions of holism are a part of European heritage.[268] Though subdued for centuries with grave effect—like its kindred philosophies and legal systems in the Global South—it is now especially pertinent.

3. *EJ for EJ*

The almost seamless compatibility of Earth Jurisprudence with environmental justice[269] ("EJ"), which is concerned with the interplay of race, poverty, and environmental risk, is not difficult to argue. Indeed the fluid, integrative, and interconnected perception of the environment for Earth Jurisprudence is consistent with the environmental justice advocates' informal definition of one's environment; that is, the environment is where you live, work, and play.[270] Further, EJ movements have included intergenerational justice and the rights of nature as part of their core principles.[271] To bridge divides between the Global North and South and respond to global ecological crisis, environmental and climate justice scholars, like Carmen Gonzalez, explore EJ in an international context as well. Gonzalez prescribes procedures for international environmental law that are normatively grounded in respect for nature as well as for social, economic, and environmental justice.[272] Gonzalez also lifts up transnational EJ movements, which take as their task an integrated approach to justice that includes climate food, energy, water, among other things.[273] Further, the presence of migrant justice organizations, like No One is Illegal, at recent climate marches[274] suggest less fragmentation and further linkages across intimately connected justice struggles.

D. A View from the Bottom

Alternative philosophies and associated rights discourses are robust and well-developed. They are hopeful demonstrations of what might emerge from behind the veil. It is worth noting, too, that the legal ecosystem may already be at the tipping point of its own critical transition. As noted above

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did not fit the pervasive idea of progress. Essentially, this has not changed until today—except for the fact that the case for sustainability has never been stronger.").

[268] Bosselman, *supra* note 229, at 58.

[269] *See generally* Burkett, *supra* note 59. The environmental justice movement is concerned with the interplay of race, poverty and environmental risk, generally. Findings that poor and of-color communities suffer from pollution more frequently and severely than their white counterparts spurred the development of significant practical and theoretical responses. With the advent of perceptible climate change, a new framework of climate justice—mindful of the particulars of a warming Earth as well as the principles of environmental justice—has emerged. *See id.*

[270] *See id.*

[271] *See, e.g.*, *Principles of Environmental Justice*, *supra* note 263.

[272] Gonzalez, *supra* note 33, at 221.

[273] *See id.*

[274] *See* Saad, *supra* note 66, at 101.

in Part III, regime shifts, ecological and otherwise, are often a complete surprise to the inhabitants.

Recent advances in legislation and litigation do hint at a legal shift. Grants of personhood to waterways have occurred in disparate spaces. New Zealand granted legal personhood to the Whanganui River,[275] with the potential effect of empowering marginalized communities and worldviews.[276] Similarly, the High Court of the state of Uttarakhand, India, granted legal personhood to the sacred Rivers Ganga and Yamuna.[277] With respect to the environment, generally, the Supreme Court of India recognized a constitutional right to a healthy environment.[278] More recently, the High Court of Ireland recognized for the first time a personal constitutional right to an environment that supports dignity and well-being.[279] The Court stated that:

> A right to an environment that is consistent with the human dignity and well-being of citizens at large is an essential condition for the fulfilment of all human rights. It is an indispensable existential right that is enjoyed universally, yet which is vested personally as a right that presents and can be seen always to have presented, and enjoy protection, under . . . the Constitution.[280]

These advances are in addition to over a hundred constitutions have been amended to incorporate environmental rights and duties to some degree.[281] Finally, and especially relevant to climate migration, current South Pacific negotiation processes introduce post-colonial responses to migration, namely questioning imposed border and nation-state demarcations, and revive pre-colonial notions of connectivity in Oceania.[282]

Whether this is a shift that initiates a critical transition in the fundamental identity of the legal system is unclear at this point. It is important to note that in the United States, federal courts have consistently rejected the notion

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[275] Mary Papenfuss, *New Zealand Welcomes a Mighty River to Personhood*, HUFFINGTON POST (March 17, 2017, 3:08 AM), https://www.huffingtonpost.com/entry/new-zealand-river-personhood_us_58cb6d13e4b00705db4e02e2 [https://perma.cc/V7PT-EGHP].

[276] Grear, *supra* note 26, at 129.

[277] Mohd. Salim v. State of Uttarakhand, Writ Petition (PIL) No.126 of 2014, decided on 20.03.2017, *available at* https://www.nonhumanrightsproject.org/content/uploads/WPPIL-126-14.pdf [https://perma.cc/7E8V-FZCF].

[278] Subhash Kumar v. State of Bihar and Ors, (1991) 1 SC 420 (India), *available at* http://www.globalh ealthrights.org/wp - content/uploads/2013/10/Kumar-India-1991.pdf [https://perma.cc/9RX3-YV29].

[279] Friends of the Irish Environment CLG v. Fingal County Council (H. Ct.), *available at* http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2017/20171121_2017-No.344-JR_judgment.pdf [https://perma.cc/A3FR-CF9U].

[280] *Id.* at 292.

[281] Bosselman, *supra* note 229, at 59. *See also In re* Application of Maui Electric Co., Ltd., No. SCWC-15-0000640 (Haw. Dec. 14, 2017).

[282] *See, e.g.*, Klepp & Herbeck, *supra* note 132, at 71–72.

that there is a constitutional right to a clean environment.[283] The Court did, however, recently recognize a previously unrecognized "fundamental right" in *Obergefell v. Hodges*, suggesting that the limits of relatively fixed sets of constitutional rights might be more fluid than previously conceived.[284] With emerging and novel cases in the United States,[285] Michael Burger asks, "Have we come far enough on climate change to activate the legal imagination of the panel's judges? Do they agree with . . . what climate science tells us, that a stable climate system is an essential piece of ensuring protection of liberty? Or not?"[286] The flurry of activity across legal jurisdictions, irrespective of their near-term outcomes suggest that alternative bottom-lines are up for serious negotiation. At the very least, this activity militates in favor of continued and concerted effort in courts and legislatures and cautious optimism about a tipping point for the transformation of existing legal architecture.

Conclusion

Law is never static, but rather, lives in each new context. In fact, one of the most important things to understand about any law is how it changes. And it has to change in order to be an effective part of governance—it has to be appropriate to new contexts and circumstances or it simply will not work. It also it has to be appropriate to the experiences of the people or it will have no meaning or legitimacy.

— *Val Napoleon*[287]

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[283] *See* Ely v. Velde, 451 F.2d 1130, 1139 (4th Cir. 1971) ("While a growing number of commentators argue in support of a constitutional protection for the environment, this newly-advanced constitutional doctrine has not yet been accorded judicial sanction[.]"); *see also* Lake v. City of Southgate, No. 16-10251, 2017 WL 767879, at *4 (E.D. Mich. Feb. 28, 2017) (finding that U.S. courts have consistently rejected the claim that individuals have a fundamental constitutional right to a clean and healthful environment); *In re* Agent Orange Prod. Liab. Litig., 475 F. Supp. 928, 934 (E.D.N.Y. 1979) (holding that there is no constitutional right to a healthful environment); Pinkney v. Ohio Envtl. Prot. Agency, 375 F. Supp. 305, 310 (N.D. Ohio 1974) (holding that there is no "fundamental right to a healthful environment implicitly or explicitly in the Constitution"); Tanner v. Armco Steel Corp., 340 F. Supp. 532, 537 (S.D. Tex. 1972) (finding that the Constitution does not provide a "legally enforceable right to a healthful environment"); Envtl. Def. Fund, Inc. v. Corps of Engineers of U. S. Army, 325 F. Supp. 728, 739 (E.D. Ark.), supplemented, 325 F. Supp. 749 (E.D. Ark. 1971) (finding that the right to a clean and healthy environment is not protected by the U.S. Constitution and deferring to the legislative and executive branches of government to make this determination).

[284] *See* Obergefell v. Hodges, 135 S. Ct. 2584 (2015) (recognizing same sex marriage); Michael Burger, *4 Things to Listen for in Monday's* Juliana *Oral Argument*, Climate L. Blog (Dec. 8, 2017), http://blogs.law.columbia.edu/climatechange/2017/12/08/4-things-to-listen-for-in-mondays-juliana-oral-argument/ [https://perma.cc/CM2Y-GPRU].

[285] *See, e.g.*, Juliana v. U.S., 217 F. Supp. 3d 1224 (D. Or. 2016), *motion to certify appeal denied,* No. 6:15-CV-01517-TC, 2017 WL 2483705 (D. Or. June 8, 2017).

[286] Burger, *supra* note 284.

[287] Napoleon, *supra* note 227, at 4.

Numerous rights discourses and critical legal theories have highlighted the excesses and inequities that have brought the global community to this point. Those discourse and theories have also forwarded elegant, and long-standing, alternatives to the status quo. Literatures on traditional knowledge and indigenous legal orders, earth jurisprudence, and environmental justice embrace and articulate approaches that seek the most just outcomes for the worst off, including the non-human natural world. And, although these discourses and foundational principles may appear a radical departure from current geosociopoltical structures and the legal infrastructure that undergirds them, those seeking justice—behind the veil—may imply or mandate those principles for our climate constrained world.

Ultimately, however, a satisfactory theory of justice will not only need to be germane and effectual over a wide range of questions posed in a future marked by constantly changing ecological baselines,[288] it will also embed an iterative process of reconsideration as conditions require.

Of course, it is almost laughable and certainly heartbreaking to ponder whether some version of this inquiry can proceed at this moment given the current political climate—at least in the climate of the United States. As I have conceded in earlier appeals for climate reparations,[289] the value of a proposal and its viability are often greatly misaligned. Here, too, the value of a disquisition on veils, original positions, and theories of justice may seem limited in reality. While perhaps less plausible in practice today, the non-hypothetical veil is most useful at this stage to shine a bright light on the profound failing of our legal regimes vis-à-vis climate change and the contemporary human condition—uniquely demonstrated by the phenomenon of climate-induced migration. As daunting and implausible as correcting the current geopolitical order may seem, the true parade of horribles that will emerge from an inequitable and poorly managed world that is 4° Celsius warmer—though perhaps unimaginable—may indeed be inevitable.

The sincere hope is that we will choose the least-worst option.

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[288] *See* RAWLS, 1999 ed., *supra* note 213, at xix.
[289] Burkett, *Climate Reparations*, *supra* note 58.